

Digital-Based Culture House in Efforts to Improve Community Economy in Papring Banyuwangi

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ABSTRACT

Culture is an important aspect that must be implemented so as not to be eroded by the times. The purpose of this research is to preserve culture by utilizing technology in the form of digital learning, as well as an effort to improve the economy of the Banyuwangi Papring Environment community. This research is an applied research using data collection methods in the form of interviews, observations, and literature studies. This research was conducted at the Kampoeng Batara Banyuwangi Traditional School. The results showed that digital learning was able to arouse children's enthusiasm for learning. Digital learning developed contains the culture of the archipelago, traditional children's games, and local community SMEs. An important implication of the existence of digital learning is that there is an increase in the economy of local communities who are increasing and buying MSME products which are presented in the Kampoeng Batara Traditional School gallery.

Keywords: Digital Learning, Nusantara Culture, Children's Traditional Games, Community MSMEs

INTRODUCTION

Culture is an aspect that cannot be separated from a country. However, the current culture has begun to be abandoned by the community. Efforts that can be made to preserve culture include the creative industry (Sulistyan & Paramita, 2021), the use of digital media technology (Pratama, 2021). Cultural preservation has become the focus of several parties, including the preservation carried out in Osing Banyuwangi (Paramita, Rizal, & Taufiq, 2020), Culture in Tanah Lot and Borobudur (Diarta, 2017), Typical Culture of Lumajang (Setiyo, Paramita, & Sulistyan, 2021), Saronen Madura Culture (Romadhan, Puspaningtyas, & Rahmadanik, 2019), Balinese Mesatua Culture (Pratama, 2021), and other cultures. Among several preserved cultures, awards from several parties were given to the preservation of Banyuwangi culture in Kampoeng Batara (Paramita, Rizal, Sulistyan, Taufiq, & Dimiyati, 2021; Sulistyan & Paramita, 2021).

The results of a survey conducted in 2022 in Kampoeng Batara, Papring Environment, Banyuwangi Regency, East Java Province, there are main problems related to cultural preservation that are still not optimal. In this case, it is necessary to apply technology to support the preservation of this culture. Along with the planning concept carried out by the founder of Kampoeng Batara in cultural preservation, it can be done by making a digital-based Cultural House. This concept has been discussed with the local community, creative youth groups, farmer groups, pokdarwis, traditional schools, equality schools, and literacy schools. The digitalization

that will be implemented is in the form of digital learning which is useful for the learning process of the children of the Sekolah Adat Kampoeng Batara.

The importance of applying technology in the form of digitalization is because it prevents destruction and encourages the importance of culture to the public through digital media. In addition, cultural heritage should not be lost due to rapid modernization (Revianur, 2020). The concept of digitization as an effort to preserve and save information about culture has developed in several areas including the Radya Pustaka Surakarta Museum (Prastiani & Subekti, 2019), Karya Cipta Lontar (Sawitri & Dharmawan, 2020), and the Cultural Heritage Building Juang 45 (Kholifah & Nurjayanti, 2022). However, the process of digitizing culture that has existed so far is still limited to digitizing data, not yet as an active learning medium. Digitization developed in Kampoeng Batara is in the form of digital learning which covers all aspects ranging from the culture of the archipelago, children's traditional games, and local community SMEs.

Digital learning has been developed based on the theory of generations. This theory explains the importance of historical, cultural, and political events (Kettler, Table, & Stehr, 1984). The implementation of digital-based learning is in accordance with the latest trends in the world of education (Kalimullina, Tarman, & Stepanova, 2021). This theory explains the characteristics of modern learning in the digital economy era (Savelyeva, Falchenko, Kovalev, & Pliusnina, 2018). Digital learning developed in Kampoeng Batara Banyuwangi is the development of the theory of generations. The development is carried out in the form of a non-formal learning system in which it discusses more about the culture of the archipelago, children's traditional games, and the local community MSMEs.

The purpose of this research is to preserve the culture of Banyuwangi by utilizing technological developments in the form of a digital learning-based cultural house, as well as an effort to improve the economy of the Banyuwangi Papring Environment community. The benefit of digital learning is that children who are members of the Kampoeng Batara Traditional School will have a lot of knowledge about culture and SMEs. The biggest hope is that culture will not become extinct, eroded by the times and the economy of the community will increase.

METHOD

This research is an applied research that aims to solve the problems contained in the research location. In this case, it intends to apply the findings to solve specific problems that are currently happening in an organization (Sekaran & Bougie, 2016). Data collection methods in this study used interviews, observations and literature studies (Paramita, Rizal, & Sulistyan, 2021). Interviews were conducted with parties who are competent in providing the information needed, namely the founder of Kampoeng Batara, the IT team, local community leaders, and university representatives. Observations are carried out by direct observation which is structured by preparing a list of data requirements and data sources. Literature study is carried out by studying the results of previous research related to system development. The focus is limited to making a digitalization system (digital learning of Indonesian culture, children's traditional games, and MSMEs for the papring community) in an effort to improve the community's economy.

RESULT AND DISCUSSION

The digitization process began with a discussion with the founder of Kampoeng Batara as an effort to solve the problem of preserving Banyuwangi's culture and efforts to improve the economy of the Banyuwangi Papring Environment community. Digital learning developed in Kampoeng Batara in the form of archipelago culture, children's traditional games, and MSMEs of the Banyuwangi Papring Environment community. The result of the discussion between the founders of Kampoeng Batara, the private sector, and universities, that digital learning was developed in the form of the Papring Information System or SIPAPRING (sipapring.com). The developed information system includes 3 main features:

1. Manage the latest information
2. Managing digital learning media which is managed directly by Kampoeng Batara
3. Managing handicraft products to offering / connecting to the marketplace so that they can be ordered by the wider community.

The contents of the digital learning developed include the main page, digital learning page, and product page. The main page consists of several contents ranging from digital learning materials, supporting facilities, SME products, news/blog news, YouTube videos and footers. The material/digital learning page is divided into 2 columns, on the left there is a list of materials by category (archipelago culture, children's traditional games, and MSMEs). On the right there is a content page from digital learning where there is a list of contributors, participants, and documentation. The product page is divided into 2 columns, on the left is the SME product search filter, on the right is a list of products offered, if website visitors click on the product image, product details will be displayed where transactions can be made directly or through the marketplace.

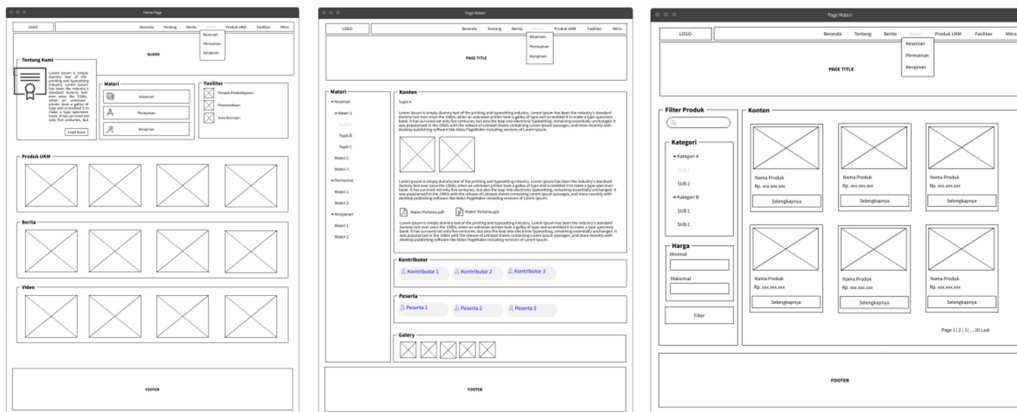


Figure 1. Main Page, Digital Learning Page, and Product Page

After the system is formed, it is filled with materials related to the culture of the archipelago, children's traditional games, and MSMEs. The material about the culture of the archipelago developed into the website (sipapring.com) is in the form of the typical culture of Banyuwangi Regency, such as the Gandrung Batara Dance, Gamelan, Pencak Silat, Mocoan Lontar Yusuf, Bamboo Patrol, Kuntulan, Hadrah, and Jaranan Dance. The details of the Nusantara culture are as follows:

1. Tari Gandung Batara

Tarian Gandrung is a typical Banyuwangi dance performed as an embodiment of the community's gratitude after the harvest. Gandrung is a performing art that is presented to the accompaniment of music typical of a blend of Javanese and Balinese cultures. This dance is one of the cultural forms of the Osing Tribe who is a native of Banyuwangi. This dance is performed in pairs between women (gandrung dancers) and men (advanced) known as paju. Gandrung is often performed at various events, such as weddings, sea pethik, circumcision, seventeen and other official and unofficial events, both in Banyuwangi and other regions. Usually, the gandrung show starts at around 21.00 and ends until dawn (around 04.00).

The types of gandrung dances are: Jejer Gandrung, Paju Gandrung, Seblang Subuh, Seblang Lukinto, Gandrun Dor, Gandrung Marsan, Gama Gandrung, and Jaripah. The style in dancing the gandrung dance is to form a square with the dancer in the middle. The gandrung will come to the guests who dance with him one by one with seductive movements, and that is the essence of the gandrung dance, which is infatuation or lust. The uniqueness of this dance is the clothing, the typical Gandrung Banyuwangi dancer's clothing, and it is different from other Javanese dances. There is a visible Balinese influence (Kingdom of Blambangan).

The clothes for the body consist of clothes made of black velvet, decorated with yellow gold ornaments, and shiny beads and in the shape of a bottle neck that are wrapped around the neck to the chest, while the shoulders and half of the back are left open. There are 2 main properties in the gandrung dance, namely the shawl (sampur) and the fan. In the past, there were 2 fans used and held in the left and right hands. A dance property worn on the head called omprok.

2. Gamelan

Gamelan is a traditional Javanese, Sundanese, and Balinese music ensemble in Indonesia that has a pentatonic scale in the slendro and pelog scales system. Consists of percussion instruments used in karawitan music. The most commonly used instruments are metallophones including gangsa, gender, bonang, gong, saron, slenthem played by wiyaga using a hammer (batter) and membranophone in the form of drums played by hand. Also idiophones in the form of keanak and other metallophones are some of the commonly used gamelan instruments. Other instruments include the xylophone in the form of the xylophone, the aerophone in the form of a flute, the chordophone in the form of a fiddle, and a vocal group called the sinden.

A set of gamelan is grouped into two, namely the gangsa pakurmat and gangsa ageng. Gangsa pakarmatan is played to accompany the hajad dalem (traditional karaton ceremony), jumenengan (the coronation ceremony of the king or queen), tingalan dalem (commemoration of the ascension to the throne of the king or queen), garebeg (ceremonies of important events), sekaten (ceremonies to commemorate the birthday of the Prophet Muhammad). Gangsa ageng is played as an accompaniment to cultural arts performances, generally used to accompany beksan (dance art), wayang (performing arts), uyon-uyon (traditional ceremonies/celebrations), and others. Currently, gamelan is widely used on the islands of Java, Madura, Bali, and Lombok.

The following is the division of groups on gamelan instruments:

- a. The balungan group, which is a melody carrier whose sound is made of thick metal plates.
- b. Its members are demung, saron, and pekingese.

- c. Blimbingan group, which is a melody carrier whose sound-producing is a flat metal plate.
- d. Its members are slendhem and gender.
- e. The pencon group, which is a harmony carrier whose sound is in the form of a metal tube.
- f. Its members are bonang, kethuk, kenong, and gongs.
- g. The drum group, which is the bearer of the rhythm whose sound is produced by the leather sheet being beaten. Its members are various kinds of drums.
- h. Complementary groups, namely the giver of decorations. Its members are flute, fiddle, siter, and so on.

The musical instrument in the gamelan is Kendang, Saron, Demung, Bonang (Bonang Panerus, Bonang Barung, Bonang Panembung), Kenong, Gong, Kempul, Gambang, Slenthem, Gender, Siter, Rebab, Suling, Kemanak, Gendrum.

3. Pencak Silat

Pencak silat is a martial art that pays attention to mental and spiritual aspects. Pencak silat is a form of Indonesian culture to defend themselves. In Southeast Asian countries, pencak silat is known as Silat. Pencak means the basic movement of self-defense. Meanwhile, silat means a perfect self-defense movement that comes from holy spirituality for self-safety from the Joint. The elements for self-defense with martial arts, namely by using punches and kicks. Pencak silat is a martial art that is in great demand by many people, especially the people of Indonesia. The parent organization of pencak silat in Indonesia is the Indonesian Pencak Silat Association (IPSI). The organization that accommodates the martial arts federations in various countries is the Association of Pencak Silat Between Nations (Persilat), which was formed by Indonesia, Singapore, Malaysia, and Brunei Darussalam.

One of the goals of practicing silat is to increase courage and reduce fear. Dare because it's true. You must be ready to attack or be attacked by the opponent. Those are some of the things that are experienced when learning pencak silat, so that our mentality is continuously trained step by step. The special characteristics of pencak silat are as follows:

- a. Calm, limp attitude (relaxed, like a cat but alert).
- b. Using flexibility, agility, speed, timing and the right target (accurate) with fast movements to control the opponent, not using force.

The equipment used is in the form of a pencak silat uniform, samsak, body protector, genital protector, footwear protector, skin decker, and mattress.

4. Mocoan Lontar Yusuf

Mocoan lontar yusuf is a tradition carried out by the Osing Banyuwangi tribal community in the form of reading Yusuf's lontar (manuscript). Lontar Yusuf itself is an ancient book written in Pegon script and contains the Book of the Prophet Yusuf. The form is in the form of traditional poetry bound by rules called pupuh. The total in Yosup's Lontar consists of 12 pupuh, 593 stanzas and 4,366 lines. In Banyuwangi, Lontar Yusup is the only ancient manuscript that is still "living" in local communities, especially in rural areas. Other ancient Banyuwangi manuscripts, such as the Kidung Sritanjung and various variants of the Babad Blambangan, are almost never read again today.

The story of Yusuf, which was written in the form of a song, had been created in various other areas of Java. However, Lontar Yusup Banyuwangi has its own characteristics, both textual elements (story, vocabulary, and form of pegon script) and performance (music and reading rituals). Meanwhile, Yusup's Lontar, until now, is still regularly recited or sung

(poems sung) in front of the public in traditional rituals for saving the human life cycle (birth, circumcision and marriage) as well as annual village clean-up rituals. But in certain cases, it can also be held for an event to fulfill someone's tone. Several groups of readers of Lontar Yusup also periodically, once a week, still hold readings of Yusup's papyrus (mocoan) in turns at the homes of each member of the mocoan group, but not in full.

Yusup's complete Mocoan Lontar is usually sung at night, after the Isha prayer time (around 7 pm) until it ends before the dawn prayer time (around 3 am). In this mocoan event, a group of readers of Lontar Yusup sat cross-legged, lined up in a semi-circle on a mat, then took turns singing the lines of Yusup's poems in a variety of songs by the Osing Tribe, which differed from the tone of Javanese songs in general. Yusup's text that was read was placed on a pillow, and alternately surrounded by the singers. Lontar Yusup's mocoan session, as a ritual practice, also has special ritual procedures and instruments and is not just an ordinary song reading.

In principle, this traditional mocoan lontar activity is similar to a kind of recitation conducted by Muslims. It's just that in the recitation conducted by the residents of Kemiren Village, they use a book / papyrus in the form of ancient texts, in Old Javanese language, and inscribed with the Arabic letter Pegon, and use a rhythm similar to that of singing mocopat. In the life of the Using community in Kemiren Village, every time there is a community celebration (birth, circumcision, and marriage) this lontar reading activity is never abandoned, as a series of opening events. The equipment used is a book or papyrus manuscript.

5. Patrol Bambu

Patrol art is one of Banyuwangi's special types of music that is still alive and growing until now. Patrol art is a type of folk music that is more rhythmic in nature, without diatonic equipment. Patrol Bamboo art is also found in other areas with their own characteristics, including in Madura and Central Java. In the Banyuwangi patrol there is a kind of rhythmic patrol tool which in Using dialect is called gendhong. The tool functions like a drum in Banyuwangi angklung art or a cello in keroncong music. So the tool has an important function as a regulator of rhythm and rhythm. The gendhong beater must really know the rhythm and understand a lot of patrol game techniques. Patrol Banyuwangi folk music functions as a means of protecting village security from all kinds of dangers, and the word patrol which comes from the word patrol means 'watch around' or 'patrolling' while ringing rhythmic instruments made of large and small bamboo sticks, which When hit, it makes a different sound and is pleasant to hear.

The art of patrol Banyuwangi has its own characteristics. Traditionally, in the Banyuwangi area, during the month of Ramadan there is a custom every night after the tarawih prayer is held a patrol game around from village to village by teenagers and some are even adults. This habit no longer functions as a village guard or night patrol, but voluntarily and selflessly wakes villagers who are still sleeping soundly and immediately wakes up to eat sahur. The typical Banyuwangi patrol art equipment is generally made of large and small bamboo segments that are sharpened and perforated in such a way that they can make a loud sound when hit. From the color of the beautiful sound, a group of young people tried to express their musical taste through this art.

6. Kuntulan

Kuntulan is one of the traditional dance arts that was born and developed in Banyuwangi. A dance which is actually an art that comes from various artistic creativity. Creativity that tries

to combine art that was born and developed in the world of Islamic boarding schools in the form of Hadrah art with a typical art from Banyuwangi, namely the Gandrung dance. The movement in the kuntulan is divided into four steps, namely one step at a time walking while turning, jumping right and left, and respectful movements. The naming of this kuntulan is based on the performance of the dancers of this art, in which all the players, both musicians and dancers, are all men who wear white shirts, white pants and wear caps (black cap). The use of socks and gloves for the dancers is also similar to the egrets that are usually found in the fields. This kind of costume is the initial costume commonly used by kuntun dancers.

The philosophical meaning contained in this dance is the white color of the egret's feathers and the color of the dancer's clothes which have white color illustrates holiness.

Movement of the head forward and backward also describes the movement of the head of the person who is dhikr. This is also accompanied by the position of the two hands in front of the chest which resembles the beak of an egret. The musical instruments used are lying and kluncing. While the equipment worn on the top of the dancer's clothes is yellow with flower decorations on the headgear and gloves. While the bottom wearing socks.

7. Hadrah

Hadrah Al- Banjari is the art of reading sholawat and praise to the Prophet Muhammad accompanied by a flying musical instrument / tambourine that is hit by hand with various punches, resulting in a serene musical rhythm. The function of hadrah art music is as a means of ceremony, communication, entertainment and culture (a characteristic of local culture) among the Sambas Malay community. Musical instruments in one set consist of 4 tambourines or banjari, bass, tam or tung, calti, and 3 marawis or keprak. Hadrah is a type of tambourine music that has historical relevance during the spread of Islam by Sunan Kalijaga, Java. Because of its interesting development, this art is often held at events such as the birthday of the prophet, isra'j miraj, or celebrations such as recitations, weddings.

8. Tari Jaranan

Tari jaranan is the name of one of the traditional dances typical of the province of East Java. This dance is hundreds of years old and is performed by dancers riding horses made of bamboo. Taken from the story of the community that has developed, the Jaranan dance tells about the marriage between Klono Sewandono and Dewi Songgo Langit. Meanwhile, the dancers who ride the horse property when performing the Jaranan dance are a group of soldiers who accompany the wedding. There are several functions of this jaranan dance, such as performances, ritual events and other aesthetic functions. Musical instruments to accompany the dance are kenong, drums, gongs, kempul trumpets, and kecer. The properties used include lumping horses, whips, scarves, machetes, anklets, bracelets, and headbands..

In addition to the culture of the archipelago, digital learning is also being developed in the form of traditional children's games in Kampoeng Batara Banyuwangi. The details of the game are Stilts (ordinary, shell, whip), Gasing (bamboo, wood, block), Petak Hide and Seek, Pateng Dudu, Slodoran, Engklek, Gledekan, Seltok, Kemplut, Leker, Karet, Tepil, Banbanan, Yoyo, Killing, Bekel-bekelan ball, Kenkring, Pantel, Puk-Karupu'an, Pos Katapos, Jejegan, Using Quartet, and Dakon.

The content of digital learning is also in the form of MSME products from the Papring Banyuwangi community. The products are in the form of typical Papring Banyuwangi batik, Bamboo Crafts, and Coffee. The three products are described as follows:

1. The typical papring batik has the characteristics of bamboo and bamboo leaves which are innovated with the elephant oling motif.
2. Bamboo crafts produced in the form of bamboo cups, bamboo lanterns, besek, bamboo tables, anklung, gedeg, trays, waste baskets, bamboo bags, ashtrays, wakul, songkok, flower pots, and so on.
3. The coffee produced is the original result of the Papring community who has their own coffee plantation and is processed into 2 products, namely robusta coffee and excelsa.

Digital learning developed at the Kampoeng Batara Banyuwangi Traditional School will later be accessible to children who come both from Kampoeng Batara and from formal educational institutions. They will be able to learn through the website www.sipapring.com about the culture of the archipelago, traditional children's games, and local community MSMEs. The material presented in digital learning is not only in the form of narration, but also in the form of videos and photos which are the actual picture.

The results of the digital learning system have made an important contribution to the development of theory of generations (Kalimullina, Tarman, & Stepanova, 2021; Savelyeva, Falchenko, Kovalev, & Plusnina, 2018). This theory provides important implications for cultural preservation through digital learning at the Kampoeng Batar Traditional School Banyuwangi. And the existence of a digital learning system can increase people's income through the products presented in the existing gallery of Kampoeng Batara. This gallery only sells products produced by the papring community. The management of the sales proceeds by the community group managing the Kampoeng Batara Traditional School and part of the income is used for the operational costs of the Traditional School. The income of the community is increasing along with the existence of a new product in the form of typical papring batik which is of interest to visitors.

CONCLUSION

The conclusion of this study is that the digital system-based cultural house that is applied is very useful for learning the children of Kampoeng Batara Banyuwangi. The real implementation is that children and visitors can at the same time learn the culture of children's games, crafts, and national culture. There has been a fairly high increase in visits to the digitization system. Visits in Kampoeng Batara have also increased, especially for visitors who want to learn about culture.

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EVENT RUNDOWN

The 4th International Colloquium of Business and Economics in 2022

Tuesday, September 27th, 2022

No	Time	Agenda
1	08.00 – 09.00	Registration
2	09.00 – 10.00	Opening Ceremony (Hybrid): Master of Ceremony: Amelia Choya, SE., ME Remarks from the Head of the Doctoral Program of Economics Remarks from the Dean of the Business and Economics Faculty
3	10.00 – 10.15	Moderator of Keynote Speaker 1: Arum Darmawati, SE., MM - (Hybrid)
4	10.15 – 11.15	Keynote Speaker 1: Corina ak Joseph, Prof. Dr. - University Teknologi Mara Serawak (Hybrid)
5	11.15 – 11.30	Moderator of Keynote Speaker 2: Noor Sahzreen - (Hybrid)
6	11.30 – 12.30	Keynote Speaker 2: Evan Lau Poh Hock, Prof. Dr. - University Malaysia Sarawak (Hybrid)
7	12.30 – 13.30	Coffee break & Lunch
8	13.30 – 15.30	PAPER PRESENTATION AND DISCUSSION Room 1. (Hybrid) Reviewer: Dr. Ratna Wijayanti Daniar Paramita, SE., M.M. Room assistant: Dra. Siti Nurlaela, SE., M.Si., Ak. Room 2. (Hybrid) Reviewer: Dr. Umi M, M.Si., Ak Room assistant: Adeng Mustikawati, SE., M. Si Room 3 (Hybrid) Reviewer: Dr. Christina Catur Widayati, MM Room assistant: Diana Rahmawati, SE., M. Si Room 4 (Hybrid) Reviewer: Dr. Aris Edi Sarwono, SE., M. Si Room assistant: Nurul Istiqomah, SE., M. Si Room 5 (Hybrid) Reviewer: Dr. Dini Yuniarti, M. Si Room assistant: Rohwiyati, SE., MM Room 6 (Hybrid) Reviewer: Prof. Dr. Krismiaji, M.Sc., Ak., CA Room assistant: Fitri Susilowati., SE, M. Si Room 7 (Hybrid) Reviewer: Dr. Barokatulminalloh Room assistant: Kusumaning Dyah Retno, SE., M. Si Room 8 (Hybrid) Reviewer: Dr. Wahyu Widarjo, SE., M.Si., Ak Room assistant: Nurul Herawati, S.E., M.Si. Room 9 (Hybrid) Reviewer: Dr. R. Agus Trihatmoko, SE., MM Room assistant: Sri Risma Yeni
9	15.30 – 16.30	Coffee break
10	16.30 – 17.00	Closing



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EVENT RUNDOWN

The 4th International Colloquium of Business and Economics in 2022

Wednesday, September 28th, 2022

No	Time	Agenda
1	08.00 – 09.00	Registration
2	09.00 – 10.00	Opening Ceremony (Hybrid): Master of Ceremony: Amelia Choya, SE., ME Remarks from the Head of the Doctoral Program of Economics Remarks from the Dean of the Business and Economics Faculty
3	10.00 – 10.15	Moderator Keynote Speaker 3: Noor Sahzreen - (Hybrid)
4	10.15 – 11.15	Keynote Speaker 3: Rayenda Khresna Brahmana - University of Bahrain (Hybrid)
5	11.15 – 11.30	Moderator Keynote Speaker 4: Arum Darmawati, SE., MM - (Hybrid)
6	11.30 – 12.30	Keynote Speaker 2: Irwan Trinugraha, Prof. Dr. – Universitas Sebelas Maret Surakarta (Hybrid)
7	12.30 – 13.30	Coffee break & Lunch
8	13.30 – 14.00	Announcement of Best Paper and Closing

Zoom Link:

Topic: 4th International Colloquium by Doctoral Program of Economics UNS

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Passcode: pdieuns

Note: Zoom has been broken up into nine rooms; select the appropriate room.



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ORGANIZING ROOMS

The 4th International Colloquium of Business and Economics in 2022

Room 1 (Hybrid)	Title of Papers & Authors
<p>Reviewer: Dr. Ratna Wijayanti Daniar Paramita, SE., M.M.</p> <p>Room assistant: Dra. Siti Nurlaela, SE., M.Si., Ak.</p>	<p>1. A COMPARATIVE CASE STUDY OF PROFITABILITY AND FIRM VALUE BY FIRM CHARACTERISTICS. (Dany Adi Saputra - Universitas Sebelas Maret Surakarta)</p>
	<p>2. CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABILITY BALANCE SCORECARD: A CASE STUDY. (Aliffianti Safiria Ayu Ditta - Universitas PGRI Madiun)</p>
	<p>3. ANALYSIS OF THE DIFFERENCES OF DECENTRALIZATION FUNDS ON ECONOMIC GROWTH BEFORE AND DURING COVID-19 PANDEMIC (CASE STUDY IN EAST JAVA PROVINCE, INDONESIA). (Suyanto - Univeristas Dr. Soetomo Surabaya)</p>
	<p>4. ANALYSIS OF THE USE OF VILLAGE FUNDS ACCORDING TO THE GROUP OF LAGGING REGENCIES/CITIES IN DISADVANTAGED AREAS OF INDONESIA. (Suyanto, Wiwik Budiarti, Rahmawati Erma Standsyah, and Dendy Syahru Ramadhan - Univeristas Dr. Soetomo Surabaya)</p>
	<p>5. APPLICATION OF KLASSEN TYPOLOGY IN THE PATTERN OF ENVIRONMENTAL CARRYING CAPACITY AND ITS ROLE IN REGIONAL ECONOMIC DEVELOPMENT. (Dyah Maya Nihayah^{1,2}, Izza Mafruhah¹, Lukman Hakim¹, and Suryanto Suryanto² - ¹ Universitas Sebelas Maret Surakarta; ² Universitas Negeri Semarang)</p>
Room 2 (Hybrid)	Title of Papers & Authors:
<p>Reviewer: Dr. Umi M, M.Si., Ak</p> <p>Room assistant: Adeng Mustikawati, SE., M. Si</p>	<p>1. CASHLESS PAYMENTS AND ECONOMIC GROWTH IN INDONESIA (Ari Christiani - Universitas Sebelas Maret Surakarta).</p>
	<p>2. COMPARISON OF ENVIRONMENTAL DISCLOSURE ON SOCIAL MEDIA AND SUSTAINABILITY REPORT (CEO NARCISSISM PERSPECTIVE) (Kamalah Saadah, Agung Nur Probohudono, Doddy Setiawan, - Universitas Sebelas Maret Surakarta)</p>
	<p>3. CORPORATE CHARACTERISTICS AND WATER DISCLOSURE IN INDONESIAN WATER-SENSITIVE INDUSTRY. (Aditya Pandu Wicaksono^{1,2}, Doddy Setiawan², Y. Anni Aryani², Sri Hartoko² - ¹Universitas Islam Indonesia, ²Universitas Sebelas Maret)</p>
	<p>4. COVID-19 PANDEMIC AND INCOME ON PAWNSHOP ELECTRONIC. (Yuliana, Vitratin, Sri Risma Yenny, Lifia - Institut Maritim Prasetya Mandiri, & Universitas Sebelas Maret)</p>
	<p>5. DIGITAL TRANSFORMATION AND BANKING PERFORMANCE IN INDONESIA (Fitri Susilowati, Universitas PGRI Yogyakarta).</p>
Room 3 (Hybrid)	Title of Papers & Authors
<p>Reviewer: Dr. Christina Catur Widayati, MM</p> <p>Room assistant: Diana Rahmawati, SE., M. Si</p>	<p>1. DIGITAL-BASED CULTURE HOUSE IN EFFORTS TO IMPROVE COMMUNITY ECONOMY IN PAPRING BANYUWANGI. (Ratna Wijayanti Daniar Paramita, Noviansyah Rizal, Riza Bahtiar Sulistyan, Danang Wikan Carito, Ikhwaniul Hakim, Fadhel Akhmad Hizham- Institut Teknologi dan Bisnis Widya Gama Lumajang, Indonesia)</p>
	<p>2. DISPARITY OF PERFORMANCE CHALLENGES OF PROSPECT FAMILY PROGRAM (PKH) CHALLENGES IN GERBANGKERTOSUSILA – EAST JAVA. (Ratna Handayati, Asri Laksmi Riani, Sinto Sunaryo, Hidajat Hendarsjah - Universitas Sebelas Maret Surakarta)</p>
	<p>3. HOW DOES P2P LENDING LEAD TO BI-RATE AND COMMERCIAL BANK INCOME? EMPIRICAL EVIDENCE FROM INDONESIA (Hadi Ismanto - Universitas Sebelas Maret Surakarta)</p>
	<p>4. EFFECT OF MINING SECTOR ON ECONOMIC GROWTH AND UNEMPLOYMENT IN FUTURE NATIONAL CAPITAL OF INDONESIA, EAST KALIMANTAN: A SIMULTANEOUS PANEL DATA ANALYSIS Akhmad Fatikhurriqzi, Robert (Kurniawan, Lukman Hakim, Mohamad Andrian Isnaeni- Politeknik Statistika STIS Jakarta & Universitas Sebelas Maret Surakarta)</p>
	<p>5. EFFECT OF PROFITABILITY AND LEVERAGE ON FIRM VALUE WITH DIVIDEND POLICY AS A MEDIATION VARIABLE (Selvia Roos Ana, Deni Juliasari, Fetri Setyo Liyundira, Khoirul Ifa - Institut Teknologi dan Bisnis Widya Gama Lumajang)</p>

Room 4 (Hybrid)	Title of Papers & Authors
Reviewer: Dr. Aris Edi Sarwono, SE., M. Si Room assistant: Nurul Istiqomah, SE., M. Si	1. IMPLEMENTATION OF PSAK 69 IN INDONESIA (Aminah, Djoko Suhardjanto, Rahmawati, Jaka Winarna - University of Bandar Lampung, Indonesi & Universitas Sebelas Maret)
	2. IMPLEMENTATION STRATEGY FOR THE DOWNSTREAM BUSINESS OF NUTMEG (MYRISTICA ARGANTEA WARB) IN FAKFAK REGENCY (Titis Istiqomah, Sri Rahayu, Fadlun Santi Romain, Masitha Mahardhika College of Economics, Surabaya)
	3. KEPEMILIKAN KELUARGA DAN MANAJEMEN LABA, SEBUAH STUDI BIBLIOMETRIK. (Siti Arifah- Universitas Tidar Magelang)
	4. LOCAL GOVERNMENT PERFORMANCE IN INDONESIA: THE ROLE OF GOOD GOVERNANCE AND CORRUPTION. (Khairudin, Rahmawati, Jaka Winarna, Evi Gantowati- Universitas Bandar Lampung - Universitas Sebelas Maret)
	5. MARKETING STRATEGY AND SELF-EFFICACY ON MSME PERFORMANCE (Eskasari Putri & Bandi - Sebelas Maret University, Muhammadiyah University of Surakarta)

Room 5 (Hybrid)	Title of Papers & Authors
Reviewer: Dr. Dini Yuniarti, M. Si Room assistant: Rohwiyati, SE., MM	1. NEXUS BETWEEN SHARIAH COMPLIANCE AND STOCK PRICE CRASH RISK: EVIDENCE FROM INDONESIA (Bambang Sutrisno - Universitas Sebelas Maret)
	2. OWNERSHIP STRUCTURES AND TUNNELING IN INDONESIA (Trisnik Ratih Wulandari, Doddy Setiawan, Ari Kuncara Widagdo - Universitas Sebelas Maret)
	3. PAPUA PROVINCE FOCUS STRATEGY IN IMPROVING SMALL AND MEDIUM BUSINESS PRODUCTS THROUGH COMPETITIVE PERFORMANCE (Deni Surapto, Milcha Handayani - Universitas Terbuka)
	4. PENDEKATAN ETIKA DALAM MENGINVESTIGASI PENGARUH FRAUD TRIANGLE TERHADAP PERILAKU UNTUK MELAKUKAN TINDAK KECURANGAN AKADEMIK (SURVEI PADA PEMBELAJARAN DALAM JARINGAN DI PROGRAM STUDI SARJANA TERAPAN EKONOMI) (Adeng Pustikaningsih - Universitas Sebelas Maret Surakarta)
	5. PRINCIPAL CUSTOMER, RELATED PARTY AND TAX AVOIDANCE (Juliati, Rahmawati, Sri Hartoko, Eko Arief Sudaryono - Universitas Sebelas Maret Surakarta)

Room 6 (Hybrid)	Title of Papers & Authors
Reviewer: Prof. Dr. Krismiaji, M.Sc., Ak., CA Room assistant: Fitri Susilowati., SE, M. Si	1. STUDY OF ACCEPTANCE OF THE USE OF TAX E-FILING TAX APPLICATIONS IN YOGYAKARTA DURING THE COVID-19 PANDEMIC (Diana Airawaty, Wahyu Widarjo, & Rahmawati Rahmawati - Universitas Sebelas Maret Surakarta)
	2. TESTING ASSET PRICING MODELS IN AN EMERGING MARKET: EVIDENCE FROM INDONESIA (Bambang Sutrisno - Universitas Sebelas Maret Surakarta)
	3. THE COMPARATIVE ANALYSIS OF COMPANY VALUE IN THE ERA AND BEFORE THE COVID-19 PANDEMIC (Ainun Jariah - Institut Teknologi dan Bisnis Widya Gama Lumajang)
	4. THE EFFECT OF COMPANY PROFITABILITY, LEVERAGE, AND SIZE ON TAX AVOIDANCE DURING THE COVID-19 PANDEMIC IN MANUFACTURING COMPANIES (Sri Risma Yenny - Universitas Sebelas Maret)
	5. THE EFFECT OF HUMAN RESOURCES COMPETENCE, INFORMATION TECHNOLOGY SYSTEMS, INTERNAL CONTROL SYSTEMS AND GOVERNMENT ACCOUNTING STANDARDS ON THE QUALITY OF LOCAL GOVERNMENT FINANCIAL REPORTS (Empirical Study of the Tegal Regency Regional Apparatus Organization) (Muhammad Akbar Adhi Pradana, Eskasari Putri, S.E., M.Si., Akt- Muhammadiyah University of Surakarta)

Room7 (Hybrid)	Title of Papers & Authors
Reviewer: Dr. Barokatulminalloh Room assistant: Kusumaning Dyah Retno, SE., M. Si	1. THE IMPLEMENTATION OF CORPORATE GOVERNANCE IN CORPORATE SOCIAL RESPONSIBILITY PROGRAM TO INCREASE OF THE COMPANY PERFORMANCE AT PT. PERTAMINA (PERSERO) ON THE ISLAND OF JAVA (Lili Wardani Harahap, Rahmawati, Sri Hartoko, Ari Kuncara, Widagdo - Universitas Sebelas Maret)
	2. WOMEN IN THE BOARDROOM AND FINANCIAL SOUNDNESS-STUDY AT ISLAMIC BANK IN SOUTHEAST ASIA. (Hasan Mukhibad, Doddy Setiawan, Y. Anni Aryani, Falikhatun - Universitas Sebelas Maret)
	3. The Impact of BPNT and PKH Encouraging KPM Satisfaction Productivity in Bekasi City (Kurniawan Prambudi Utomo - Universitas Bina Sarana Informatika Jakarta)
	4. EARNINGS MANAGEMENT AND CAPITAL STRUCTURE DECISION: THE ROLE OF MINORITY INTEREST? (Ade Imam Muslim - Sekolah Tinggi Ilmu Ekonomi Ekuitas Bandung; Doddy Setiawan, Y. Anni Aryani and Evi Gantowati - Universitas Sebelas Maret)
	5. COVID's Impacts on the Labour Relations and The Human Resource Management Performance Rescue in South East Asia and EU Countries. (Angelia Anggia Permata Norman - Universitas Terbuka and STIE Sutaatmadja Subang)

Room 8 (Hybrid)	Title of Papers & Authors
<p>Reviewer: Dr. Wahyu Widarjo, M.Si., Ak.</p> <p>Room assistant: Nurul Herawati, S.E., M.Si.</p>	<p>1. ECONOMIC IMPROVEMENT OF SMALL AND MEDIUM BUSINESS THROUGH THE UTILIZATION OF WASTE (Rahmawati, Ubaidillah, Dwi Prasetyarini, Ratna Endah Santoso, and Rum Handayani - Universitas Sebelas Maret Surakarta Siti Nurlaela - Universitas Islam Batik Surakarta)</p>
	<p>2. FAMILY CONTROL, CEO PUBLICITY, AND EARNINGS QUALITY: A CASE STUDY OF MANUFACTURING COMPANIES IN INDONESIA (Sri Murni, Rahmawati, Ari Kuncara Widagdo, and Eko Arief Sudaryono - Universitas Sebelas Maret Surakarta)</p>
	<p>3. THE ROLE OF HIGHER EDUCATION IMAGE AND SERVICE QUALITY ON THE RELATIONSHIP BETWEEN UNIVERSITY SOCIAL RESPONSIBILITY (USR) AND STUDENTS' LOYALTY (Sri Suranta - Universitas Sebelas Maret)</p>
	<p>4. THE EFFECT OF CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE ON THE FINANCIAL PERFORMANCE OF COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (Nurul Khomariyah, Indrian Supheni, Ambarwati and Hermiliani Olpah- Sekolah Tinggi Ilmu Ekonomi Nganjuk, and Sri Murni – Universitas Sebelas Maret Surakarta)</p>
	<p>5. ANALYSIS OF THE EFFECT OF LIQUIDITY RATIO AND PROFITABILITY RATIO ON STOCK PRICES DURING THE COVID-19 PANDEMIC ON FOOD AND BEVERAGE COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (Empirical Study of the Tegal Regency Regional Apparatus Organization) (Eny Triana, Ambarwati, Budiono and Indrian Supheni - Sekolah Tinggi Ilmu Ekonomi Nganjuk, and Rohwiyati - Universitas Sebelas Maret)</p>

Room 9 (Hybrid)	Title of Papers & Authors
<p>Reviewer: Dr. R. Agus Trihatmoko, SE., MM</p> <p>Room assistant: Sri Risma Yeni</p>	<p>1. THE NEXUS BETWEEN INSTITUTIONAL QUALITY, EFFICIENCY AND STABILITY IN MALAYSIAN ISLAMIC BANKING SECTOR (Nur Sazreen & Tri Mulyani - Universitas Sebelas Maret)</p>
	<p>2. Determining the Interest to Use Financial Technology: An Integration Theory of Acceptance Model and Theory of Planned Behavior (Retno Larasatie- Universitas Negeri Sebelas Maret & Rofiul Wahyudi - Universitas Ahmad Dahlan Yogyakarta & Universiti Tun Hussein Onn Malaysia)</p>
	<p>3. DOES FINANCIAL DEVELOPMENT ALLEVIATE CO2 EMISSIONS? A TIME SERIES ANALYSIS FROM INDONESIA (Eka Dyah Pramusinta - Universitas Sebelas Maret Surakarta)</p>
	<p>4. Tax Avoidance and Family Firm: A Systematic Literature Review (Nurul Herawati - Universitas Trunojoyo Madura; Rahmawati Rahmawati, Bandi Bandi, and Doddy Setiawan - Universitas Sebelas Maret Surakarta)</p>
	<p>5. Pemulihan Ekonomi melalui Pengembangan Desa Wisata Berwawasan Budaya dengan Pemanfaatan Ruang Digital (Rahmawati - Universitas Sebelas Maret Surakarta; Rochmat Aldy Purnomo - Universitas Muhammadiyah Ponorogo; Rindang Widuri - Universitas Bina Nusantara; and Sugeng Nugroho - Institut Seni Indonesia)</p>



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ABSTRACTS OF PAPERS

A COMPARATIVE CASE STUDY OF PROFITABILITY AND FIRM VALUE BY FIRM CHARACTERISTICS

Dany Adi Saputra

Universitas Sebelas Maret Surakarta

ABSTRACT

The purpose of this case study is to describe the firm characteristics that include industry competition, debt levels, and controlling shareholder and their relation to profitability and firm value of three companies, SMGR, INTP, and SMCB, in the cement subsector listed on the Indonesia Stock Exchange in 2019. Qualitative analysis was performed by comparing profitability (return on assets, ROA), firm value (Tobin's Q), and firm value-to-profitability ratio (Q_ROA) for the three sample firms that differ in their characteristics. This case study provides the following empirical evidence. SMCB had the lowest ROA, Tobin's Q, and Q-ROA, followed by SMGR and INTP with relatively higher ROA, Tobin's Q, and Q-ROA. The level of competition in the SMCB industry is the highest, followed by INTP and SMGR. SMCB and SMGR have relatively higher DAR (greater than 45 percent) while INTP has relatively lower DAR (lower than 45 percent). The controlling shareholders of SMCB, SMGR, and INTP are national corporations, the Indonesian government, and foreign corporations, respectively. These results suggest that debt level and controlling shareholder play an important role in explaining profitability, firm value, and firm value to profitability ratio, while industrial competition has a marginal role in explaining these variables.

Keywords: Profitability, Firm Value, Industry Competition, Debt Level, Controlling Shareholders

CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABILITY BALANCE SCORECARD: A CASE STUDY

Safiria Ayu Ditta

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ABSTRACT

The covid-19 pandemic that affects almost all business sectors also threatens the sustainability of several business sectors, one of which is shopping centers. This study looked at the performance assessment of companies that perform corporate social responsibility (CSR) using the concept of Sustainability Balance Scorecard. This study used a case study method at one of the shopping centers in Madiun City. The results of this study show CSR has become a corporate strategy even though the company is hit by strong financial pressures and the implementation of CSR is able to improve performance both from the perspective of customers, finance, internal business and learning and growth except during the covid-19 pandemic which did have an impact on the decline in overall company performance.

Keywords: Corporate Social Responsibility, Sustainability Balanced Score Card, Corporate Performance

ANALYSIS OF THE DIFFERENCES OF DECENTRALIZATION FUNDS ON ECONOMIC GROWTH BEFORE AND DURING COVID-19 PANDEMIC (CASE STUDY IN EAST JAVA PROVINCE, INDONESIA)

Suyanto
Universitas Dr. Soetomo Surabaya

ABSTRACT

At the beginning of 2020, Indonesia experienced the Covid-19 pandemic which had an impact on its economy. This affects regional income, making the region more dependent on the central government balancing funds. Currently, Indonesia is trying to recover from the various problems caused by the pandemic. Therefore, the researcher wants to examine the comparison of the Decentralization Fund, Vertical Fiscal Imbalance, Public Service Capital Expenditure, and Human Development Index on Economic Growth before and during the Covid-19 pandemic. The research data was used in cross-section data at districts and cities in East Java Province in 2019 and 2021 from Statistics Indonesia and the Directorate General of Fiscal Balance. The study results show that there are no significant effects Decentralization Fund on Economic Growth Before and During Pandemic Covid-19. In addition, the Public Service Capital Expenditure and the Human Development Index have a significant positive influence on economic growth both before and during the Covid-19 Pandemic. While Vertical Fiscal Inequality had a positive influence on economic growth before the Covid-19 pandemic, during the Covid-19 pandemic, Vertical Fiscal Inequality did not affect economic growth.

Keywords: Decentralization Fund, Vertical Fiscal Imbalance, Public Service Capital Expenditure, Human Development Index, Economic Growth

ANALYSIS OF THE USE OF VILLAGE FUNDS ACCORDING TO THE GROUP OF LAGGING REGENCIES/CITIES IN DISADVANTAGED AREAS OF INDONESIA

**Suyanto, Wiwik Budiarti, Rahmawati Erma Standsyah,
and Dendy Syahru Ramadhan**
Universitas Dr. Soetomo Surabaya

ABSTRACT

Indonesia is a developing country that has the potential to become a developed country. Consequently, the government strives to achieve this, particularly by imposing a regional autonomy system on the village banks. With this, the region will have the power to manage its finances to solve the problems that exist in the region. It is, therefore, necessary to study the relevance of the use of village funds so that this study aims to classify underdeveloped areas according to the criteria of underdeveloped regions and to analyze the use of village funds. The clustering method used is K-means clustering, with underdeveloped area criteria data in 2021 based on district/city research units. The results obtained from 62 regencies/cities of underdeveloped areas in Indonesia are divided into 3 groups. Group 1 consists of 23 regencies/cities in groups based on human resource criteria, group 2 consists of 28 regencies/cities based on facilities and infrastructure criteria, and group 3 consists of 11 regencies /cities in groups based on economic criteria. The use of village funds of 62 regencies/cities in underdeveloped regions is more optimized according to the requirements of the highest delay.

Keywords: utilization of village funds, Criteria for disadvantaged areas, k-means clustering

APPLICATION OF KLASSEN TYPOLOGY IN THE PATTERN OF ENVIRONMENTAL CARRYING CAPACITY AND ITS ROLE IN REGIONAL ECONOMIC DEVELOPMENT

Dyah Maya Nihayah
Universitas Negeri Semarang
And
Izza Mafruhah, Lukman Hakim, and Suryanto Suryanto
Universitas Sebelas Maret Surakarta

ABSTRACT

The study aims to determine the pattern of environmental carrying capacity on regional per capita income in Indonesia during 2013-2019. This research was carried out as a basis for determining regional policy priorities based on the environmental carrying capacity of the region. The regional per capita income and environmental carrying capacity variables were analyzed using the Klassen typology method. The result shows that many regions or provinces have not been managed efficiently in economic activities to improve economic welfare. With the proper classification of the position of an area, policy priorities can be made according to their designation.

Keywords: environmental carrying capacity, regional per capita income, Klassen typology, welfare

CASHLESS PAYMENTS AND ECONOMIC GROWTH IN INDONESIA

Ari Christianti
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ABSTRACT

The development of digitalization in payment has begun to replace cash payments with cashless payments. This study used Error Correction Modelling (ECM) approach to examine the effect of cashless on economic growth in Indonesia used quarterly data from 2010 to 2021. The proxy of economic growth in this study is gross domestic product based on constant price and the proxy of cashless are the transaction value of ATM/Debit, Credit Cards, and Electronic Money. The results showed that cashless payments (ATM/Debit and Electronic Money) have a positive effect on Indonesia's economic growth in the long term. It shows that a positive effect of cashless on economic growth could be observed in the long term only. It means that any cashless policy will not directly affect economic growth. This finding might be attributed because the cashless policy requires time for equally distributed infrastructure development and the public's financial literacy process.

Keywords: cashless, economic growth, and ECM.

COMPARISON OF ENVIRONMENTAL DISCLOSURE ON SOCIAL MEDIA AND SUSTAINABILITY REPORT (CEO NARCISSISM PERSPECTIVE)

Kamalah Saadah, Agung Nur Probohudono, and Doddy Setiawan
Universitas Sebelas Maret Surakarta

ABSTRACT

This paper aims to provide an understanding of the suitability of environmental disclosure practices on social media with the one on corporate sustainability reports based on the concept of narcissistic accounting. This study applied quantitative methods using the Wilcoxon and Mann-Whitney tests to evaluate the hypothesis. The findings of the study indicate that the environmental disclosure of companies in Indonesia through Instagram is still in its early stages. The environmental disclosure in corporates' sustainability reports with narcissistic and non-narcissistic leaders are different while the environmental disclosure on social media for companies with narcissistic and non-narcissistic leaders are not different. This study provides practical implications for stakeholders, especially for the public who use CSR data, regarding environmental disclosure for various interests and decision making, in addition to providing insight for management in the realm of strategic management to disclose CSR activities, especially environmental disclosure on social media. This study is also beneficial from a scientific point of view regarding the disclosure of the corporate environment associated with the concept of narcissistic accounting.

Keywords: social media, environmental disclosure, narcissistic accounting.

CORPORATE CHARACTERISTICS AND WATER DISCLOSURE IN INDONESIAN WATER-SENSITIVE INDUSTRY

Aditya Pandu Wicaksono, Doddy Setiawan, Y. Anni Aryani, And Sri Hartoko
Universitas Sebelas Maret Surakarta

ABSTRACT

Due to Indonesia's negative impacts on water quantity and quality, the water-sensitive industry receives greater attention and pressure from its stakeholders to disclose water-related information. As previous studies indicate that firm characteristic is the drivers of corporate social responsibility disclosure, this study investigates the effect of corporate characteristics on water disclosure in the Indonesian water-sensitive industry. Firm characteristics are employed to represent the stakeholders. The samples are all water-sensitive industry listed on Indonesia Stock Exchange (IDX) in 2018-2019. Data are collected from annual reports and sustainability reports, which are published on corporate and IDX websites. All the developed hypotheses are examined using random effect model. This research finds that firm size positively and significantly influences water disclosure. It means that bigger firm receives higher pressure from stakeholders to create water disclosure. On the other hand, profitability does not substantially influence water disclosure practices. Similarly, higher leverage does not stimulate Indonesian water-sensitive companies to disclose water stewardship information.

Keywords: water disclosure, water-sensitive industry, listed companies, Indonesia

COVID-19 PANDEMIC AND INCOME ON PAWNSHOP ELECTRONIC

Yuliana, Vitratin, Sri Risma Yenny, and Lifia
Institut Maritim Prasetya Mandiri

ABSTRACT

The Covid-19 pandemic has devastated almost all sectors of life, including the economic sector which has caused a decline in people's purchasing power because many companies have suffered losses and even went bankrupt and were forced to lay off their employees. This condition forces some people to sell or pawn their assets to be able to meet their needs during the pandemic. This study aims to investigate the impact of the Covid-19 pandemic on a private electronic pawnshop in Bandar Lampung. This research is field research with a qualitative descriptive method. The data used in the form of primary and secondary data obtained by using the methods of observation, interviews and documentation. Respondents consist of leaders, administrative staff, and some of the company's customers. The results showed that during the Covid-19 pandemic, the income of the company engaged in the electronic pawnshop experienced a drastic decline. The company implements several strategies in order to survive, by promoting on various social media platforms, providing interest waivers, providing mortgage tempo waivers, carrying out various efficiencies to reduce operational costs and other expenses, and maintaining good relations with customers, as well as selling goods immediately. pawns that customers cannot redeem online.

Keywords: Covid-19 Pandemic, Income, Strategy, Electronic Pawnshop

DIGITAL TRANSFORMATION AND BANKING PERFORMANCE IN INDONESIA

Fitri Susilowati
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ABSTRACT

This study aims to determine the influence of fintech internally and externally on the performance and banking risk in Indonesia. The internal influence of fintech is observed in digital transformation. Meanwhile, the external influence is seen from the establishment of P2P lending companies whether P2P lending is a competitor or collaborator in banking in Indonesia. Testing the effect of P2P Lending on banks is also carried out based on the type of debtor, namely MSME debtors and non-MSME debtors. The population in this study is banking supervised by the Financial Services Authority (OJK) for the period 2018-2021. The sample covered banking in the period of 2018 due to the bank's digital policies and the data availability of P2P Lending. Samples were determined using the purposive sampling method. The research samples were 87 commercial banks with a total of 1,305 observations. Bank performance testing was proxied by ROA and ROE, while the risk was proxied by NPL and Zscore. The estimation method used in hypothesis testing was the two-step Arellano-Bond GMM dynamic panel. The estimation method was employed considering the time lag. The results of the study can be determined by the influence of fintech internally and externally on banking performance in Indonesia. The implications of this research can be used as information, advice, and evaluation regarding the regulations or policies making for online services. Banks can determine the right strategy in adopting technology in an attempt to transform. Should a bank do a partial conversion or a full conversion to increase its role in financial intermediation? Should a bank partner with P2P lending in developing a digital service platform, have alliances, and form a digital ecosystem or should a bank build and develop their online service platform? This is intended to increase competitiveness in banking.

Keywords: Transformation, fintech, bank performance, P2P Lending, MSME

DIGITAL-BASED CULTURE HOUSE IN EFFORTS TO IMPROVE COMMUNITY ECONOMY IN PAPRING BANYUWANGI

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ABSTRACT

Budaya merupakan aspek penting yang harus dilaksanakan agar tidak tergerus oleh perkembangan zaman. Tujuan dari penelitian ini adalah untuk melestarikan budaya dengan memanfaatkan teknologi dalam bentuk digital learning, serta sebagai upaya meningkatkan ekonomi masyarakat Lingkungan Papring Banyuwangi. Penelitian ini merupakan penelitian terapan dengan menggunakan metode pengumpulan data berupa wawancara, observasi, dan studi pustaka. Penelitian ini dilakukan pada Sekolah Adat Kampoeng Batara Banyuwangi. Hasil penelitian menunjukkan bahwa digital learning mampu membangkitkan semangat belajar anak-anak. Digital learning yang dikembangkan berisikan budaya nusantara, permainan tradisional anak, dan UMKM masyarakat lokal. Implikasi penting dari adanya digital learning yaitu adanya peningkatan ekonomi masyarakat lokal yang semakin bertambah dan membeli produk-produk UMKM yang disajikan pada galeri Sekolah Adat Kampoeng Batara.

Keywords: Digital Learning, Nusantara Culture, Children's Traditional Games, Community MSMEs

DISPARITY OF PERFORMANCE CHALLENGES OF PROSPECT FAMILY PROGRAM (PKH) CHALLENGES IN GERBANGKERTOSUSILA – EAST JAVA

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ABSTRACT

The characteristics and daily environment of the beneficiary families of the Family Prospect Program (PKH) are different, giving different challenges to the performance of facilitators. Big cities like Surabaya have performance challenges which are of course very different from the performance challenges in Lamongan Regency, which is mostly an agricultural area. The research aims to find the various characteristics of the performance challenges faced by PKH social assistants, which absolutely must be understood by the Government in efforts to alleviate poverty in Indonesia, so that the performance of PKH social assistants in each different region can run as expected. Descriptive research with a combination approach through participatory methods. The research data was collected through a closed survey of respondents who have been determined to consist of shareholders (PKH assistants), stock holders (beneficiaries), and stake holders (relevant government elements) proportionally. The total respondents were 120 people from 7 districts/cities of the Gerbangkertosusila. The results of the study ensure that the handling of poor families by PKH social assistants must be specific according to regional characteristics. The local government must be pro-active in providing additional briefing to the social assistants PKH, by instructor and resource persons who really understand the characteristics of handling poverty problems in each area of work coverage of PKH social assistants.

Keywords: disparity, performance, PKH social assistants.

HOW DOES P2P LENDING LEAD TO BI-RATE AND COMMERCIAL BANK INCOME? EMPIRICAL EVIDENCE FROM INDONESIA

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ABSTRACT

Technological developments have shifted the traditional financial system to digitalization by bringing joy and convenience to some parties. P2P lending comes with that excitement to debtors who do not qualify for bank lending. For this reason, this study aims to analyze the relationship of P2P lending companies to interest rates and income of commercial banks in Indonesia. Using monthly data from January 2017 to April 2022, we analyze this association with the VAR-VECM model. Through various diagnostic model tests, the regression results show that in general P2P lending companies affect interest rates, interest income, and non-interest income of commercial banks. The existence of P2P lending companies currently has a positive effect on interest rates next year. At the same time, P2P lending companies boost bank interest and non-interest income. They significantly hold down the interest and non-interest income of banks. The results record a two-way causal relationship between P2P lending companies and interest rates. The causality of P2P lending companies to non-interest income is also found, but not vice versa. This paper implies several leaps to maintain and control P2P lending risks that could potentially affect the macroeconomic and bank's financial conditions. A healthy business climate can be created when risk monitoring of P2P lending and banking can go hand in hand.

EFFECT OF MINING SECTOR ON ECONOMIC GROWTH AND UNEMPLOYMENT IN FUTURE NATIONAL CAPITAL OF INDONESIA, EAST KALIMANTAN: A SIMULTANEOUS PANEL DATA ANALYSIS

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ABSTRACT

Purpose - Known as a prosperous region in natural resources, Indonesia's prospective new capital, East Kalimantan, has performed very well in the mining and quarrying sector. In the 2010-2019 period, the average contribution of the mining and quarrying sector to the economy was 49.6 percent. But unfortunately, the unemployment rate in East Kalimantan is relatively high in Indonesia, precisely the highest on the Kalimantan Island and even higher than the national rate. This study aims to examine the relationship between economic growth and unemployment and the effect of the mining sector on both.

Methodology - This study uses panel data simultaneous equation model with the EC2SLS estimation method with ten regencies/municipalities in East Kalimantan as the unit of analysis from 2015 to 2019.

Findings - There is no negative relationship between economic growth and unemployment. Economic growth is influenced by the GRDP of the mining sector, domestic investment, and Mean Years of Schooling, while the Natural Resources Revenue Sharing Fund (NRRSF) has no significant effect. Unemployment is influenced by coal mining land, population density, and the minimum wage, while the mining sector workforce has no considerable impact.

Research limitations – Mining sector activity provides polemics regarding economic interests and negative impacts on the environment. This study only discusses the impact on the economy, while environmental issues are not discussed.

Value- Mining sector activity can be increase, as indicated by the downstream coal project and the issue of electric cars that need nickel mineral mining for making batteries.

Keywords — Economic growth, Unemployment, Mining Sector, EC2SLS

EFFECT OF PROFITABILITY AND LEVERAGE ON FIRM VALUE WITH DIVIDEND POLICY AS A MEDIATION VARIABLE

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ABSTRACT

Banks must have good performance and value because, with a good company value, a bank will be easier to attract and give trust to the public or customers. The purpose of this study was to determine the effect of profitability and leverage on firm value with dividend policy as a mediating variable at national commercial banks listed on the Indonesia Stock Exchange in 2017 – 2019. This type of research is quantitative research in which the population or sample is analyzed to test hypotheses. The type of data used is secondary data where the data is processed from data published. The population in this study were banks listed on the Indonesia Stock Exchange in 2017-2019 and obtained a sample of 25 companies which were taken using a purposive sampling technique. The test results state that profitability has a significant effect on dividend policy, profitability has a significant effect on firm value, leverage has a significant effect on dividend policy, and leverage has a significant effect on firm value. While dividend policy cannot mediate the relationship between profitability and firm value, dividend policy cannot mediate the relationship between leverage and firm value.

Keywords: Profitability; Leverage; The value of the company; Dividend Policy

IMPLEMENTATION OF PSAK 69 IN INDONESIA

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ABSTRACT

Agricultural companies in Indonesia from sectors listed on the Indonesian Stock Exchange, which are supported by the availability of information in the annual report and are taken into consideration in decision making by the company owner or company management. Companies are required to disclose their biological assets based on PSAK 69. Biological assets are different from agricultural assets which always decrease, the value of biological assets will always increase. Because of these unique characteristics, biological assets must be treated differently from other assets such as land, buildings, and others. IAS 41 on agriculture was subsequently adopted into PSAK 69 on Agriculture which came into force on January 1, 2018. There are still many agricultural companies that have not fully disclosed their biological assets. The focus is to observe how biological assets, company growth, type of auditor, and public ownership affect biological asset research. Plantation & food crop companies listed on the Indonesia Stock Exchange (IDX) are the population for this study, with a total of 25 entities. 13 of the 25 companies that became the research sample were taken using purposive sampling method. The research technique uses panel data regression on Eviews 10. The findings of this study are the intensity of biological assets and the type of auditor have a significant positive effect on biological assets. company growth has no significant positive effect on biological assets, public ownership does not have a significant negative effect on biological assets.

Keyword: Biological assets; Auditor type; Growth; Public Ownership; PSAK 69

Implementation Strategy for The Downstream Business of Nutmeg (*Myristica argantea* Warb) In Fakfak Regency

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ABSTRACT

Fakfak Regency is one of the producers of nutmeg in Indonesia. The marketing of nutmeg is sold by the public directly to traders at prices that tend to be low. The high cost of transportation that must be borne by nutmeg traders is the main obstacle to marketing nutmeg plantation products. The purpose of the study was to find an implementation strategy to increase the selling value and marketing reach of nutmeg from community plantations in Fakfak Regency. The research is descriptive empirical with a combination of quantitative and qualitative approaches to formulate the form and stages of the strategy. Sources of research data come from stakeholders, share holders, and stock holders of the nutmeg business. Data was obtained through interviews with respondents who had been determined intentionally, using a questionnaire tool that was filled out in private by a trained surveyor. The results show that the strategy for implementing nutmeg downstreaming must be carried out simultaneously starting with introducing nutmeg processing technology, improving work ethic, transferring technology by bringing in skilled workers, focusing on creating products that are in demand by the global market, and improving performance harder to fill the needs of the nutmeg market. very open world.

Keywords: strategy, downstream, industry, pala, Fakfak Regency

Kepemilikan Keluarga dan Manajemen Laba, Sebuah Studi Bibliometrik

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ABSTRACT

Penelitian mengenai kepemilikan keluarga dan manajemen laba dewasa ini berkembang sangat signifikan. Hal tersebut terjadi karena semakin berkembangnya bisnis dengan keluarga sebagai pemilik usaha serta semakin kompleksnya kebutuhan atas laporan profitabilitas perusahaan. Penelitian ini bertujuan untuk memberikan bukti empiris mengenai perkembangan dan arah penelitian dengan topik kepemilikan keluarga dan manajemen laba. Penelitian ini merupakan penelitian literature review dengan menggunakan aplikasi VOSviewer untuk mengolah data publikasi yang diambil dari laman scopus.com, dengan kata kunci family ownership dan earnings management. Hasil penelitian menunjukkan bahwa terdapat 971 data publikasi terkait kepemilikan keluarga dan 240 data publikasi terkait manajemen laba. Publikasi mengenai kepemilikan keluarga didominasi di Scopus Q1, sedangkan penelitian mengenai manajemen laba didominasi di Scopus Q2 dan Q4. Variable yang paling banyak dikaitkan dengan kepemilikan keluarga dan manajemen laba adalah corporate governance. Novelty penelitian ini adalah menggali perkembangan penelitian secara lebih detail untuk masing-masing variable. Kontribusi penelitian ini adalah memberikan arah penelitian mengenai manajemen laba dewasa yakni variabel dari factor internal seperti firm performance, dividend policy, dan ROA, sedangkan arah penelitian mengenai kepemilikan keluarga cenderung kepada variable dari factor eksternal seperti sustainable, risk-taking, dan environmental management.

Kata kunci: kepemilikan keluarga, manajemen laba, bibliometrik

LOCAL GOVERNMENT PERFORMANCE IN INDONESIA: THE ROLE OF GOOD GOVERNANCE AND CORRUPTION

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ABSTRACT

This study focuses on examining good governance and Local Government Performance which is moderated by corruption in 34 provinces in Indonesia during the 2014-2018 period. The human development index is used as a measure of Local Government Performance and corruption is measured using the value of irregularities found by the audit institution. Good governance is measured using a governance index based on the principles of good governance from the National Committee for Governance Policy of the Republic of Indonesia which is processed using the Principal Component Analysis method. The test is carried out using panel data regression with the findings that good governance has a positive and significant on Local Government Performance and corruption weakens the relationship between good governance and Local Government Performance. These findings provide empirical evidence of the importance of sustaining good governance and eradicating corruption in local government organizations to increasing Local Government Performance.

Keywords: Good Governance, Local Government Performance, Corruption

MARKETING STRATEGY AND SELF-EFFICACY ON MSME PERFORMANCE

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ABSTRACT

Strategy and belief in one's abilities are factors that are certainly needed by business owners from small to large. Both can be steps in facing challenges and various environmental situations in the changing business world to achieve good business performance. This quantitative study aims to analyze marketing strategies, and self-efficacy on the performance of MSMEs. This study involved 30 respondents (SMEs) in Surakarta as research subjects. Collecting data using a survey method with interview techniques using a questionnaire. The collected data were analyzed using SPSS software by performing instrument tests, classical assumption tests, and hypothesis testing. The results of this study inform that 1) Marketing strategy affects the performance of MSMEs, and 2) Self-efficacy affects the performance of SMEs. Following up on the findings of this study, it is hoped that in the future MSMEs will be able to optimize financial management and optimize the importance of self-control (self-efficacy) in business implementation.

Keywords: financial attitude, self-efficacy, the performance of MSMEs, MSMEs

NEXUS BETWEEN SHARIAH COMPLIANCE AND STOCK PRICE CRASH RISK: EVIDENCE FROM INDONESIA

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ABSTRACT

This study investigates the impact of firms' shariah compliance on stock price crash risk. This research employs panel data regression using data of non-financial public listed firms in Indonesia from 2015 to 2019. The findings document that Shariah-compliant firms are less likely to hoard bad news, eventually reducing stock price crash risk. The results are robust to alternative crash risk measurement and different estimation methods. The results of this study will help risk-averse investors to include shariah-compliant firms in their investment portfolios for risk minimization. The results also guide policymakers and regulatory bodies to rethink the monitoring mechanisms of publicly listed firms.

Keywords: Stock price crash risk, Shariah-compliant firms, Shariah non-compliant firms, Bad news hoarding

OWNERSHIP STRUCTURES AND TUNNELING IN INDONESIA

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ABSTRACT

The purpose of this study is to provide empirical evidence of the effect of ownership heterogeneity on tunneling activities carried out by companies in Indonesia. The structures used in this study are family ownership, foreign ownership, institutional ownership, and managerial ownership. Tunneling uses proxies for related party receivables and related party payables. The population of this study is all manufacturing companies listed on the Indonesia Stock Exchange from 2018 to 2021. The sample was selected using purposive sampling. The number of samples in this study amounted to 152 companies for 4 years, so a total of 612 observations. Data analysis techniques include descriptive statistical testing and hypothesis testing. This research method uses linear regression analysis with panel data. The variables used in this study are dependent variables (related party loan tunneling), independent variables (family ownership, foreign ownership, institutional ownership, and managerial ownership), control variables (leverage, profitability, and firm size). The results of this study indicate that family ownership and institutional ownership have a positive effect on tunneling activities proxied by related party receivables, other variables have no effect. Meanwhile, if tunneling uses a related party debt proxy, it shows that foreign ownership and institutional ownership have a positive effect on tunneling, family ownership and managerial ownership have no effect.

PAPUA PROVINCE FOCUS STRATEGY IN IMPROVING SMALL AND MEDIUM BUSINESS PRODUCTS THROUGH COMPETITIVE PERFORMANCE

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ABSTRACT

Based on year-on-year growth, the largest source of Indonesia's economic growth in the first quarter of 2020 was in the information and communication sector, which was 0.53 percent, which means that the use of digital economy plays an important role in supporting the flow of information from upstream to downstream and anyone can access information technology. The Important Role of Micro, Small and Medium Enterprises (SMEs) as contributors to Gross Domestic Product (GDP) in Indonesia's economic recovery, for that the government is committed to continuing to support SMEs to be able to survive, develop, and grow amidst the challenges of the pandemic and transformation through the Recovery Program National Economy (MoF 2021). Jayapura Province recorded significant progress in terms of the growth of cooperatives and SMEs in supporting government programs of 944 business units spread across 20 districts and cities (papua.go.id) and increasing the regional income budget and reducing poverty in the region. Until now there is a lot of potential, creativity and innovation that is not optimal when compared to the resources owned by the province. The methodology of this research is quantitative. The population is SMEs in Papua province and the sample collected is 110 SMEs. The instrument used was a level questionnaire. The Likert scale with five statements ranging from very dissatisfied and very satisfied. Analysis tool using SEM PLS. The results of this study indicate that there is a significant positive effect between growth strategy, focus strategy, technology selection on competitive performance.

Keyword: Growth Strategy, Strategy Focus, Competitive Performance

PENDEKATAN ETIKA DALAM MENGINVESTIGASI PENGARUH FRAUD TRIANGLE TERHADAP PERILAKU UNTUK MELAKUKAN TINDAK KECURANGAN AKADEMIK (SURVEI PADA PEMBELAJARAN DALAM JARINGAN DI PROGRAM STUDI SARJANA TERAPAN EKONOMI)

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ABSTRACT

This study marks the development of information technology of online learning that is inseparable from students' ethical deviations. Researchers use fraud triangle framework to investigate the behavior of academic fraud in online learning process. The researcher believes that demographic variables have the ability to enhance the influence of the fraud triangle factor on behavior to commit academic fraud. This is inseparable from the utilitarian behavior of students to maximize their chances for academic success. Quantitative approach is applied to conduct this study, through a survey of 306 undergraduate students in vocational school of a reputable state university. Rigorous tests are conducted to meet the requirements for validity, reliability, and classical assumptions to avoid bias in conclusions. The fulfillment of the BLUE assumption indicates that the OLS approach can be used through Multiple Regression and Moderated Regression Analysis (MRA) analysis techniques for hypothesis testing. To increase confidence that fraud triangle factor is capable to explain behavior to commit academic fraud, the resilience testing is performed under this research. The result shows that individual and contextual factors influence behavior to commit academic fraud. Motivation (initiative), rationalization, and opportunity have a significant positive effect on the behavior of academic fraud. Furthermore, this study also finds that demographic variables such as achievement index and experience of academic cheating are not capable to moderate the fraud triangle factors on the behavior to commit academic fraud. In other words, demographic variables are more likely to be predictor variables in this study.

Keywords: academic fraud behavior, fraud triangle, academic fraud experience, utilitarianism

PRINCIPAL CUSTOMER, RELATED PARTY AND TAX AVOIDANCE

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ABSTRACT

Purpose: This study aims to examine whether principal customer and related party have effect to tax avoidance

Design/methodology/approach: The method uses multiple regression linear to test this research. Principal customers are the company's main customers with total sales exceeding 10% of total sales. Related party are total sales form the companies that have a related party to the company. Measurement of tax avoidance using the current effective tax rate (CETR) Expected.

Findings: The expected results of the research are principal customer have a negative effect to tax avoidance and related party have a positive effect to tax avoidance.

Research limitations/implications: This research has implications for proving that customers can have an influence on the company's tax policy Practical implications: The decrease in tax avoidance from the company with the existence of principal company that affect the company's tax policy. The increase in tax avoidance from the company with the existence of related party that affect the company's tax policy. Originality/value: tax avoidance

Keywords: principal customer, related party, tax avoidance

STUDY OF ACCEPTANCE OF THE USE OF TAX E-FILING TAX APPLICATIONS IN YOGYAKARTA DURING THE COVID-19 PANDEMIC

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ABSTRACT

This study is exploratory research to determine taxpayers' acceptance of the e-filing tax system during the Covid-19 pandemic in Indonesia. The research was conducted on individual taxpayers who live in Yogyakarta for their tax reporting using the e-filing tax application. The questionnaire was distributed to taxpayers from December 2020 to January 2021 using the google form. The analytical tool used is Smart PLS and uses the Unified Theory of Acceptance and Use of Technology as a research model. The number of questionnaires that are complete and can be processed is 139 respondent data. This data has met the minimum requirements for data processing with Smart PLS and can represent the population studied. The results of the study found that Performance Expectancy has a significant effect on Behavior Intention meanwhile Effort Expectancy and Social Influence does not affect the intention of using E-filing taxes for individual taxpayers in Yogyakarta. Surprisingly, Facilitating Condition has a positive and significant effect on the intention to use the E-filing tax for personal taxes report and also has a positive and significant effect on performance expectancy and effort expectancy, meanwhile social influence does not affect effort expectancy.

Keywords: Tax E-filing, Personal Income Tax Report, UTAUT Model, Smart PLS

TESTING ASSET PRICING MODELS IN AN EMERGING MARKET: EVIDENCE FROM INDONESIA

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ABSTRACT

This paper investigates the performance of asset pricing models in Indonesia. This research employs monthly time-series data from 2000 to 2019. By employing ordinary least squares, this study finds that the Fama-French five-factor model is the best model to explain average returns in the Indonesian market. Unlike the US market, this study reveals that Indonesia's book-to-market factor is significant in describing excess portfolio returns in Indonesia. This study is essential for asset pricing literature and practice, especially in emerging markets.

Keywords: asset pricing model, Indonesia stock market, emerging market

THE COMPARATIVE ANALYSIS OF COMPANY VALUE IN THE ERA AND BEFORE THE COVID-19 PANDEMIC

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ABSTRACT

The high stock prices have an impact on the high company value. The high stock value can increase market confidence, not only on the company's current performance, but also on the company's prospects in the future. The company value is reflected in market value from a company's equity and debt market value. The company value can be measured through financial decisions, company size, and financial performance. The study aims to test and analyze investment decision, funding, and company size on financial decision and company value. As well as to test and analyze financial performance as a mediator between investment decision, funding, and company size on company value in the era and before the COVID-19 pandemic. The population is 46 transportation companies listed on the Indonesia Stock Exchange for the 2019 – 2021 period. Data analysis used is path analysis and the Sobel test. The results showed that before the pandemic, all predictive variables had no effect on financial performance, only investment decision and financial performance had effect on company value, and financial performance was able to mediate the effect of company size on company value. When the pandemic occurred, it is showed that investment decision had an effect on financial performance. All predictive variables had no effect on company value, and financial performance was able to mediate the effect of investment decision and funding on company value.

Keywords: Investment Decision, Funding Decision, Company Value, COVID-19 Pandemic, Company Size.

THE EFFECT OF COMPANY PROFITABILITY, LEVERAGE, AND SIZE ON TAX AVOIDANCE DURING THE COVID-19 PANDEMIC IN MANUFACTURING COMPANIES

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ABSTRACT

Companies take advantage of tax avoidance by making deviations or loopholes from the tax law to minimize taxes that must be paid to increase revenue, especially during the Covid-19 pandemic. This study aims to prove the effect of profitability, leverage, and firm size on tax avoidance. This research is a quantitative study, the population in this study are PT Astra International Tbk and PT Astra Otoparts Tbk which are already listed on the Indonesia Stock Exchange (IDX), and the sample was taken using purposive sampling. The data is in the form of company annual reports published on www.idx.co.id and analyzed using SPSS. The results show that profitability as proxied by Return on Assets (ROA), and firm size affect tax avoidance, while leverage, as proxied by Debt to Assets Ratio (DAR), does not affect tax avoidance.

Keywords: Profitability, leverage, company size, tax avoidance, Covid-19 pandemic.

THE EFFECT OF HUMAN RESOURCES COMPETENCE, INFORMATION TECHNOLOGY SYSTEMS, INTERNAL CONTROL SYSTEMS AND GOVERNMENT ACCOUNTING STANDARDS ON THE QUALITY OF LOCAL GOVERNMENT FINANCIAL REPORTS (Empirical Study of the Tegal Regency Regional Apparatus Organization)

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ABSTRACT

Financial reports are a medium for an entity, in this case the local government to account for its financial performance to the public. Local governments must be able to present financial reports that contain quality financial information. This study aims to determine the effect of Human Resource Competence, Information Technology Systems, Internal Control Systems and Government Accounting Standards on the Quality of Local Government Financial Reports. While the population in this study were employees of Regional Apparatus Organizations (OPD) in Tegal District. The sample in this study were finance and accounting staff at OPD Tegal District. The research object used was 39 OPD, from 100 respondents who were finance and accounting staff at the Regional Apparatus Organization (OPD) of Tegal District. The results of this study prove that the competence of human resources and government accounting systems have no effect on the quality of financial reports. Meanwhile, information technology systems and internal control systems affect the quality of financial reports.

THE IMPLEMENTATION OF CORPORATE GOVERNANCE IN CORPORATE SOCIAL RESPONSIBILITY PROGRAM TO INCREASE OF THE COMPANY PERFORMANCE AT PT. PERTAMINA (PERSERO) ON THE ISLAND OF JAVA

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ABSTRACT

The purpose of research is to explore the implementation of corporate governance and identify Corporate Social Responsibility (CSR) Program to society. Society related with the CSR programs require a specific approach to avoid misunderstandings between the local communities and companies. This research is qualitative descriptive that using phenomenological approach and interpretive paradigm, namely a paradigm that focuses on social understanding. Participants in this study are the CSR manager and CSR implementers as the unit of analysis. The data collection method in this research use secondary data, namely data obtained from the Annual Report and documentation at PT. Pertamina (Persero). The results of this study consist of: (1) PT. Pertamina (Persero) has implemented Corporate Governance or good governance, namely transparency, accountability, responsibility, and fairness in running its business to increase of the company performance, (2) Honesty, the value of truth (fairness), justice, transparency and accountability has accordanced with corporate governance at PT. Pertamina (Persero).

Keywords: CG, CSR, Company Performance

WOMEN IN THE BOARDROOM AND FINANCIAL SOUNDNESS-STUDY AT ISLAMIC BANK IN SOUTHEAST ASIA

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ABSTRACT

The study of gender diversity of Islamic bank boards (Board of Directors-BOD and Shariah Supervisory Board-SSB) is still limited. Based on the previous reference, we do not find the role of women in the BOD and SSB members on financial performance and bank risk. We argue that in the corporate governance structure of Islamic banks, BOD and SSB are jointly involved in making bank business decisions so the presence of women as SSB members strengthens the relationship between BOD gender diversity and financial performance. We use unbalanced panel data on 38 Islamic banks in 5 countries in Southeast Asia with an observation period of 2009-2019. Using Random-effects GLS regression, we found that gender BOD and SSB did not affect ROAA (an indicator of financial performance) and z-score (an indicator of financial soundness). However, we found that women in SSB members strengthened the positive effect of gender BOD on ROAA and z-score. Our results are robust after performing the 2SLS test to address the possible problem of endogeneity.

Keywords: Gender Diversity, Islamic bank, Financial Performance, Financial soundness.

THE IMPACT OF BPNT AND PKH ENCOURAGING KPM SATISFACTION PRODUCTIVITY IN BEKASI CITY

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ABSTRACT

The purpose of this study was to find out how satisfied the health of Beneficiary Families (KPM) was with social assistance (Bansos) during the Implementation of Community Activity Restrictions (PPKM) during the Covid-19 pandemic in the form of BPNT (Non-Cash Food Assistance) and PKH (Family Hope Program) , using quantitative research methods using SPSS Statistics and conducting field research (field research) both online and offline, using the self-administered questionnaires mode method, namely distributing questionnaires directly face-to-face to respondents, so that finding problems in KPM while still implementing PPKM, ranging from data inaccuracies, double data to distribution during the Covid-19 pandemic, not many have switched from social assistance, because the assistance is temporary, so that KPM, awareness is needed to be able to increase the ability of their needs in the future and no longer depend on social assistance, so that the implementation of BPNT and PKH on KPM during the implementation period and after the end of PPKM has a positive and significant effect.

Keywords: BPNT, PKH, KPM

EARNINGS MANAGEMENT AND CAPITAL STRUCTURE DECISION: THE ROLE OF MINORITY INTEREST?

Ade Imam Muslim, Doddy Setiawan, Y. Anni Aryani, and Evi Gantayowati
Universitas Sebelas Maret Surakarta

ABSTRACT

Our research seeks to investigate capital structure decisions in family firms. Our research involves earnings management proxies and minority interests. The main research question is whether minority interests play a role in influencing the earnings management and financing decisions of family firms. We use the panel data method and involve 200 family companies listed on the Indonesia Stock Exchange for the period 2010-2020. The results of the study prove that minority ownership plays a role in encouraging earnings management practices and funding decisions in family companies.

Keyword: Capital Structure, Earnings Management, Family Firm, Minority Interest

ECONOMIC IMPROVEMENT OF SMALL AND MEDIUM BUSINESS THROUGH THE UTILIZATION OF WASTE

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Universitas Sebelas Maret Surakarta
and
Siti Nurlaela
Universitas Islam Batik Surakarta

ABSTRACT

This research aims to downstream/commercialize integrating the management of export-scale wood products with the potential for waste wood chips and sawdust as an impact, so as to increase village potential and create an environmentally friendly village in Manggung village in order to increase village potential. This research was conducted as a leap in the field of wood product management and processing of waste wood scraps and sawdust into handicrafts and accessories. Improved financial management and marketing of wood production in Manggung village through improving the quality of human resources as well as export-import training to help increase exports of wood products as well as handicrafts and accessories. By utilizing local potential and local wisdom and increasing the role of persons with disabilities and victims of layoffs through training to increase knowledge and skills by cooperating with the support of the Boyolali District Government. Institutional strengthening of BUMDes Maju Makmur in optimizing the management of wood and wood waste through mentoring, training and provision of supporting equipment as well as improving governance capabilities and establishing teaching factories that will be used to study undergraduate students.

Keyword: Utilization of Environmentally Friendly Waste, Financial Management Management.

FAMILY CONTROL, CEO PUBLICITY, AND EARNINGS QUALITY: A CASE STUDY OF MANUFACTURING COMPANIES IN INDONESIA

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Universitas Sebelas Maret Surakarta

ABSTRACT

Earnings is one of the important information needed by users of financial statements, especially investors and creditors to make economic decisions. Although earnings information is very important, there are indications that the earnings information presented by the entity has not shown quality. In recent years, it was revealed that there were financial reporting scandals carried out by companies listed on the capital market. The results of previous studies also indicate that the quality of financial information produced by the entity is not yet good. This study aims to obtain empirical evidence of the effect of family control on earnings quality with the moderating variable CEO Publicity. This research data is panel data from manufacturing companies for the period 2011 - 2020, so that hypothesis testing uses panel data regression. The sample selection used purposive sampling method with certain criteria. The results of this study are expected to provide theoretical contributions, clarifying agency theory in providing empirical evidence of several determinants of earnings quality in family firms. In addition, it also develops agency theory by considering the role of the media as an external governance mechanism by focusing on CEO publicity in family-controlled companies.

Keyword: family control, CEO publicity, earnings quality

THE ROLE OF HIGHER EDUCATION IMAGE AND SERVICE QUALITY ON THE RELATIONSHIP BETWEEN UNIVERSITY SOCIAL RESPONSIBILITY (USR) AND STUDENTS' LOYALTY

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Universitas Sebelas Maret Surakarta

ABSTRACT

This study aims to examine the relationship between USR, both direct and indirect, to student loyalty through mediation of service quality and university image. The research sample was 109 students who came from the Universitas Sarjanawiyata Tamansiswa as a private university, as many as 35 respondents and Universitas Sebelas Maret Surakarta as a state university, as many as 74 respondents. The research data was obtained by sending a questionnaire in the form of a Google Doc which was sent through the Student WhatsApp Group at the university. The constructs of the four variables were tested with Loading Factors to determine construct reliability and Cronbach Alpha to determine construct validity. The research hypotheses were tested by path analysis using the WarpPLS 8.0 statistical tool. The findings of the analysis are that the image of the university mediates the relationship between USR and student loyalty. Meanwhile, service quality does not mediate the relationship. Another finding is that USR has a direct relationship to service quality, university image and student loyalty. In addition, the image of the university also has a direct relationship with student loyalty. The service quality has an insignificant relationship to student loyalty. Based on the coefficient value, the indirect relationship between USR and student loyalty through the image of the university is stronger than the direct relationship between USR and student loyalty.

Keyword: USR, image, service, loyalty

THE EFFECT OF CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE ON THE FINANCIAL PERFORMANCE OF COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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and
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Universitas Sebelas Maret Surakarta

ABSTRACT

The purpose of this study is (1) To determine the effect of CSR on ROA, (2) To determine the effect of CSR on ROE, (3) To determine the effect of CSR on DAR, (4) To determine the effect of CSR on DER. This type of research is a quantitative study using annual report data (Annual Report) and sustainability report (Sustainability Report) on companies registered in the 2014-2018 Sustainability Disclosure Database, amounting to 13 companies x 5 years = 65 samples. Data analysis techniques used are descriptive statistics, outer model evaluation, and inner model evaluation. The results showed that (1) CSR has a positive influence on ROA, namely on economic, environmental & social performance indicators. (2) CSR has a positive influence on ROE, namely on economic, environmental & social performance indicators. (3) CSR with economic and social performance indicators has a positive effect on DAR, while CSR with environmental performance indicators has a negative effect on DAR. (4) CSR with economic and social performance indicators has a positive effect on DAR, while CSR with environmental performance indicators has a negative effect on DER.

Keywords: Corporate Social Responsibility (CSR), ROA, ROE, DAR, DER

ANALYSIS OF THE EFFECT OF LIQUIDITY RATIO AND PROFITABILITY RATIO ON STOCK PRICES DURING THE COVID-19 PANDEMIC ON FOOD AND BEVERAGE COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

Eny Triana, Ambarwati, Budiono, Indrian Supheni
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ABSTRACT

This study aims to determine the effect of liquidity ratios and profitability ratios on stock prices during the covid-10 pandemic in food and beverage companies listed on the Indonesia Stock Exchange for the 2020-2021 period. This study uses quantitative research methods. The study population was 30 food and beverage companies listed on the Indonesia Stock Exchange in the first quarter to the fourth quarter of 2020 and the first quarter of 2021, which was obtained by using a sampling technique of 150 observations. Independent variable: liquidity (X1) and profitability (X2), dependent variable: stock price (Y). Data collection techniques using the documentation method with search data through the website www.idx.co.id. The analysis technique used is the classical assumption test, multiple linear regression, T test, F test and the coefficient of determination assisted by the SPSS version 25 program. The results showed that partially and simultaneously liquidity and profitability on stock prices.

Keywords: Covid-19, Liquidity, Profitability, Stock Price

THE NEXUS BETWEEN INSTITUTIONAL QUALITY, EFFICIENCY AND STABILITY IN MALAYSIAN ISLAMIC BANKING SECTOR

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Universitas Sebelas Maret Surakarta

ABSTRACT

This study examines the impact of institutional and efficiency on the Malaysian Islamic banking sector. The sample comprises 16 Islamic banks over the period of 2012 to 2020. This study used a Z-score based on return on assets (ROA) and non-performing loans (NPL) as the indicator for financial stability. Besides, this study also introduces interaction terms between efficiency and institutional and observed the impact on financial stability. This study employed the System Generalized Method of Moments (GMM) to overcome the potential issue of endogeneity in our regression. From the findings, we can see that institutional factors (government effectiveness, regulatory quality, and rule of law) influence the Islamic banking performance even though the result is different due to the proxies of financial stability. According to Demirguc-Kunt, Laeven and Levine (2003), the regulations influence the cost of the financial intermediaries. Higher cost of financial intermediaries means that the banks face inefficiency. In this study, we examine the impact of institutions with the condition of efficiency of the banks (interaction term) on the financial stability. Based on our regression result, the government effectiveness and regulatory quality impact negatively and statistically significant on financial stability (ZROA) with the condition of inefficiency of the banks. On the contrary, government effectiveness and regulatory positive and statistically influence on the stability measured by NPL. As for rule of law, the stability (ZROA) can be achieved by the stronger rule of law in the condition of inefficiency whilst the result shows insignificant for the NPL.

Determining the Interest to Use Financial Technology: An Integration Theory of Acceptance Model and Theory of Planned Behavior

Retno Larasatie

Universitas Sebelas Maret Surakarta

and

Rofiul Wahyudi

Universitas Ahmad Dahlan Yogyakarta and Universiti Tun Hussein Onn, Malaysia

ABSTRACT

This study analyzes the factors influencing Generation Millennial's and Z's interest in using Islamic financial technology. Furthermore, investigate the influence of Subjective Norm, Attitude Toward Behavior, Perceived Behavioral Control, Perceived Usefulness, Perceived Ease of Use, Perceived Trust, and Attitude Toward Using. Therefore, in this study, the integration of TAM and TPB was carried out. A survey-based questionnaire design with empirical tests was carried out. The results have supported the hypothesis that all TAM and TPB factors simultaneously affect the interest of the people of Yogyakarta City in using sharia fintech.

Keywords: Interest; Generation Z; Theory of Acceptance Model; Theory of Planned Behavior

DOES FINANCIAL DEVELOPMENT ALLEVIATE CO2 EMISSIONS? A TIME SERIES ANALYSIS FROM INDONESIA

Eka Dyah Pramusinta

Universitas Sebelas Maret Surakarta

ABSTRACT

The debate regarding whether financial development can effectively reduce carbon dioxide (CO₂) emissions has gained increasing attention due to the importance of sustainable development. To provide empirical evidence in support of the theoretical argument, this study investigates the impact of financial development on CO₂ emissions by using a time series data of Indonesia, as one of 10 countries that emits the most CO₂ from 1980 to 2020. Further, we explore the roles of economic growth and foreign direct investment play in the impact of financial development on CO₂ emissions. The study analysis is based on ARDL approach to capture the long run relationship and ECM approach to capture the short run dynamics. The empirical results indicate that in both in short run and long run term, financial development has negative effect on CO₂ emissions reduction, but the impact was not significant. In terms of policy implications, this study suggests the government adopting other mitigation policies for reducing carbon footprints where a sufficient degree of financial deepening and financial sector development has not sufficient.

Keywords: Financial Development, CO₂ Emissions, ARDL, ECM

Tax Avoidance and Family Firm: A Systematic Literature Review

Nurul Herawati

Universitas Trunojoyo Madura

and

Rahmawati Rahmawati, Bandi Bandi, and Dody Setiawan

Universitas Sebelas Maret Surakarta

ABSTRACT

This paper aims to systematically examine studies related to tax avoidance and family firms and set an agenda for future study. This study used a systematic approach to review 18 studies of tax avoidance in family firms in Scopus indexed journals in 2010- July 2020. Studies on tax avoidance in family firms have reported mixed results. The theories used are agency theory, SEW, resource-based views, stakeholder, and legitimacy theory. The heterogeneity of family firms has received the attention of previous researchers. This study is rarely conducted in developing capital markets. There are very few analyzes with an international approach and private companies' context. This study also revealed that previous studies employed various proxy variables in tax avoidance and family firms. This study filled the gap in tax avoidance study in family firms by develops a comprehensive framework that synthesizes and provides overall direction for future research.

Keywords: Tax, Tax Avoidance, Family Firm, Family Business, Systematic Review

Pemulihan Ekonomi melalui Pengembangan Desa Wisata Berwawasan Budaya dengan Pemanfaatan Ruang Digital

Rahmawati

Universitas Sebelas Maret Surakarta

Rochmat Aldy Purnomo

Universitas Muhammadiyah Ponorogo

Rindang Widuri

Universitas Bina Nusantara

and

Sugeng Nugroho

Institut Seni Indonesia

ABSTRACT

Pandes Village, Klaten Regency, is one of the areas in Central Java Province. This area has cultural potential and has a National Cultural icon, namely Ki Narto Sabdo. In its development, several activities emerged in the community in the context of preserving this local culture, including Ketoprak, Wayang Kulit and Karawitan. The potential and big name of the cultural figure, Ki Narto Sabdo, makes the spirit and triggers the community to work in the arts and culture. The problems faced today are limitations in creativity, promotion and supporting facilities. Musical activities, ketoprak and wayang are like normal routines, so they seem monotonous and not attractive to young people or children. This will affect the development of regeneration in the future, so it needs a touch of creation and the latest technology. Cultural promotion is also very minimal because there is no central place for Pandes artists to gather, they are still working and performing in their respective regions. Therefore, there is a need for marketing training with the use of digital space for cultural actors to be more widely known by the public. As a result, artists can better understand marketing strategies by utilizing digital spaces such as Facebook, Instagram, and Tiktok as digital promotional tools for cultural activities in Pandes Village, Klaten Regency.

Keywords: Cultural Tourism, Pandes, Digital Marketing, Digital Business, Ki Narto Sabdo

COVID's Impacts on the Labour Relations and The Human Resource Management Performance Rescue in South East Asia and EU Countries.

Angelia Anggia Permata Norman

Universitas Terbuka and STIE Sutaatmadja Subang

ABSTRACT

Purpose – Identifying several changes in the labor market structure in COVID-19 pandemic times. The context of the research is represented by the way of influence of the COVID-19 pandemic in the economic field, specifically at the labor market level. This tough situation may lead to generate a negative effect in the sphere of traditional jobs and economic sectors. The main challenge for sustainable development in this new global situation is represented by human sustainability.

Methodology –The study extracted 200 journals from early August 2022 until the end of August 2022. This research using literature review represented by the South East Asia and EU-28 countries also covered 9 relevant journals by removing the duplicates.

Findings – The COVID-19 pandemic has resulted in significant talent management challenges consisting of (a) hiring freezes and layoffs; (b) revenue freezes, canceled bonuses, and pay reductions; (c) how work is done (i.e., teleworking); and (d) increased employee stress. The implementation using applicable recommendations, performance human resource management serves important administrative, strategic and communication, developmental, organizational maintenance, and documentation purposes and therefore can be particularly useful in addressing contemporary Human Resource management challenges

Originality – To the best of the author knowledge, this research that directly focusing in labour in South East Asia and EU-28 countries by literature review which is also being related to the rescue by human resource management with these number of journals has not been previously carried out.

Keywords: COVID; Human Resource; Labour relation

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Preface

Little Welcome From Us

Greetings,


Doctoral Program of Economics and Business Faculty, Universitas Sebelas Maret organizes the 2022 International Colloquium on Business and Economics. The conference will be conducted both online and offline (hybrid) in Economic Faculty of UNS Solo, on September 27–28, 2022. In this conference, 30 papers were selected for international proceedings.

Faculty of Economics and Business Universitas Sebelas Maret is one of the respectable business schools in Indonesia. In the recent release from the Times Higher Education (THE), the faculty is categorized as Top 10 Economics and Business Faculty among hundreds University in Indonesia. Currently, our faculty have three undergraduate degrees, three master's degrees, and one doctoral degree program, and all of them are accredited with a rank "A".

We thank all participants who attend and present their works and hope that all comments in the parallel session are constructive to improve the paper's quality. We also thank all the speakers for the time and expertise dedicated to this event: Prof. Corina Ak Joseph, Prof. Evan Lau Poh Hock, Prof. Irwan Trinugroho, and Rayenda Krisna Bamara, Ph.D.

On behalf of the committee, I hope that this conference will give some fuel to the development of business economics especially in the doctoral program in Indonesia.

Thank you.



September 2022

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Abstract

All the articles in this proceedings volume have been presented at the International Colloquium of Business and Economics (ICBE) 2022 during September 27th–28th, 2022 in Doctoral Program of Economics, Universitas Sebelas Maret, Indonesia. These articles have been peer-reviewed by a committee of reviewers and authorized by the Editor-in-Chief, who confirms that this document accurately describes the conference review process.



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[AQ1](#)

1 Review Procedure

The reviews were single-blind. Each submission was examined by 20 reviewers independently. The submissions were first screened for generic quality and suitability. After the initial screening, they were sent for peer review by matching each paper's topic with the reviewers' expertise, considering any competing interests. A paper could only be considered for acceptance if it had received favourable recommendations from two assigned reviewers. Authors of a rejected submission were given the opportunity to revise and resubmit after addressing the reviewers' comments. The acceptance or rejection of a revised manuscript was final. Selected papers will be presented at the colloquium and re-selected for submission to a special edition of international proceedings. Figure 1 displays the paper selection process flowchart.

2 Quality Criteria

Reviewers were instructed to assess the quality of submissions solely based on the academic merit of their content along the following dimensions.

1. The title of the paper is descriptive of the paper's content, straightforward, and appealing;
2. The abstract is informative and summarizes the paper's substance;
3. The introduction clearly states the research gap or research topic and suggests a significant contribution to the literature;
4. The selection of an acceptable and sufficient theoretical framework;

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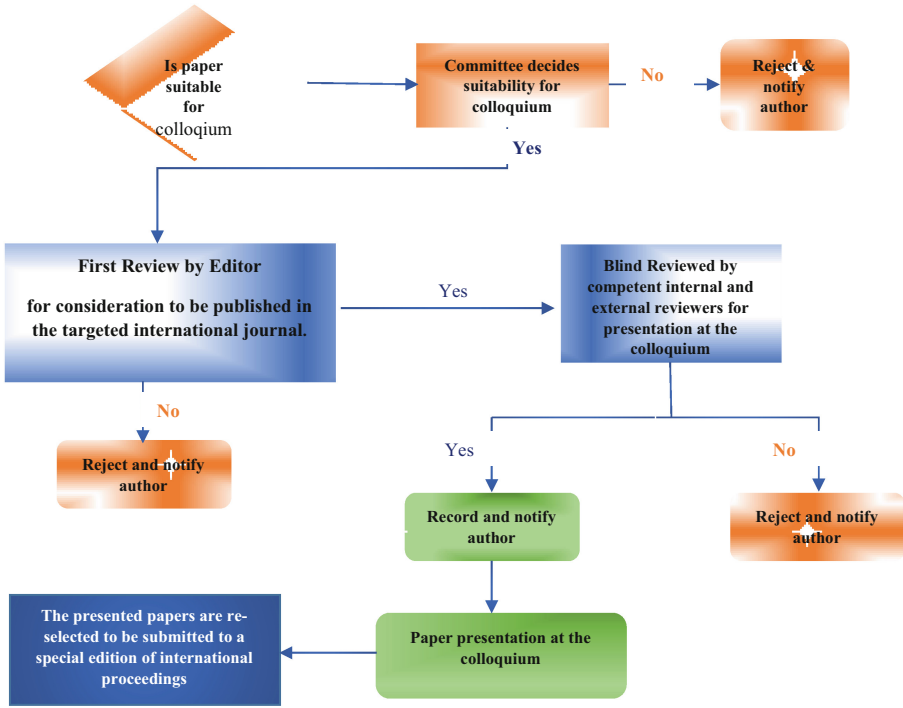


Fig. 1. Paper Selection Process

5. For papers based on empirical research, the selection of study designs or techniques is sufficient and adequately stated;
6. The content clearly describes the research originality, novelty, and timeliness;
7. The reliability of the methodology, analysis, and results;
8. Observance of relevant ethical norms and codes of behavior in the research field;
9. Simplicity, coherence, and precision in language and other modalities of communication, such as figures and tables;
10. The findings of the research make adequate contributions in the topics discussed.

In addition, all the articles have been checked for textual overlap to detect possible signs of plagiarism by the publisher.

3 Key Metrics

<i>Total submissions</i>	109
<i>Number of articles sent for peer review</i>	73
<i>Number of accepted articles</i>	48

(continued)

(continued)

<i>Number of articles for proceedings</i>	27
<i>Acceptance rate</i>	24.77%
<i>Number of reviewers</i>	20

4 Competing Interests

Neither the Editor-in-Chief nor any member of the Scientific Committee declares any competing interest.

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Abstract



The corporate governance literature has widely recognized the role of debt contracts as a mechanism that can minimize agency problems arising from conflicts of interest between managers and capital owners and between minority and majority ownership. Our research seeks to investigate capital structure decisions in family firms. Our research involves earnings management proxies and minority interests. The main research question is whether minority interests play a role in influencing the earnings management and financing decisions of family firms. We use the panel data method and involve 90 family companies listed on the Indonesia Stock Exchange for the period 2010–2020. The results of the study prove that minority ownership plays a role in encouraging earnings management practices and capital structure decisions in family companies. The governance of family companies in Indonesia has allowed minority ownership to act as an external control mechanism. Even in family firms, our research proves that the presence of minority ownership remains an important part of family management decision making.

Keywords
(separated by '-')

Capital Structure - Earnings Management - Family Firm - Minority Interest



Real Earnings Management and Capital Structure Decision: The Role of Minority Interest

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Abstract. The corporate governance literature has widely recognized the role of debt contracts as a mechanism that can minimize agency problems arising from conflicts of interest between managers and capital owners and between minority and majority ownership. Our research seeks to investigate capital structure decisions in family firms. Our research involves earnings management proxies and minority interests. The main research question is whether minority interests play a role in influencing the earnings management and financing decisions of family firms. We use the panel data method and involve 90 family companies listed on the Indonesia Stock Exchange for the period 2010–2020. The results of the study prove that minority ownership plays a role in encouraging earnings management practices and capital structure decisions in family companies. The governance of family companies in Indonesia has allowed minority ownership to act as an external control mechanism. Even in family firms, our research proves that the presence of minority ownership remains an important part of family management decision making.

Keywords: Capital Structure · Earnings Management · Family Firm · Minority Interest

1 Introduction

The corporate governance literature has widely recognized the role of debt contracts as a mechanism that can minimize agency problems arising from conflicts of interest between managers and capital owners and between minority and majority ownership [1]. Our research seeks to investigate the effect of real earnings management on capital structure decisions and the role of minority ownership in determining capital structure policies. Earnings management has been a concern of researchers for decades [2]. This research is important because capital structure decisions are strategic decisions that can determine the company's operations in the future. Previous research has proven the importance of reviewing capital structure decisions as an effort to improve performance, company sustainability and even investment [3].

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We review the capital structure decisions made by family companies. Referring to [4] family companies have several specific characteristics that are interesting to study such as succession, family control and the desire to maintain the good name of the family. In addition, the facts show that family companies practice earnings management. For example, the results of research conducted by [5, 6] show that family companies in Indonesia still implement earnings management practices.

Our research is also motivated by inconsistent research results. Research conducted by [7] in the context of research in China found that minority shareholders have a very limited role as a tool or mechanism for external control. Reference [8] found that changes in ownership, both minority and majority ownership, will not change overall governance. Although several researchers have directly linked the role of minority ownership in earnings management, based on the knowledge of researchers, there has been no test of minority ownership in earnings management and capital structure decisions, especially in family companies.

The purpose of this study is to investigate the role of minority ownership in influencing earnings management and financing decisions, identify variations in the relationship between earnings management and financing decisions, minority ownership and financing decisions and explain these relationships through relevant theories.

Our research involved a total of 90 family companies listed on the Indonesia Stock Exchange for the period 2010–2020 with a total of 990 observations. Our data were analyzed using multiple regression methods and Moderated Regression Analysis (MRA). The results of the study prove that minority ownership plays a role in influencing earnings management and capital structure decisions. This research can contribute to several aspects. First, the development of earnings management literature, capital structure and family companies. Second, for the family company itself in developing governance and choosing effective capital structure decisions.

2 Literature Review

Capital structure is a concept that has long been a concern. Capital structure can be interpreted as a relative share of debt and equity financing [9]. Debt and capital are substitutes for financing and have broad implications. Studies related to capital structure and earnings management can be studied through pecking order theory.

2.1 The Relationship Between Earnings Management and Capital Structure

Previous research has proven the relationship between earnings management and capital structure. For example, research conducted by [10] examines the relationship between earnings management and the institutional environment's capital structure affecting the relationship between the two variables. The results of the study found a positive relationship between earnings management and the level of leverage. Then the research conducted by [11] in the context of companies in Africa found a close relationship between earnings management and capital structure. His research proves that earnings management is closely related to capital structure decisions from long-term debt. Companies in Africa that implement earnings management have a high level of leverage.

Based on this description, we suspect that earnings management has a close relationship with capital structure decisions. Therefore, we formulate the first hypothesis as follows:

H1 = Earnings management has a positive effect on capital structure decisions, especially from debt.

2.2 The Relationship Between Minority Ownership and Capital Structure

Previous research has shown that minority ownership is closely related to capital structure. Research conducted by [12] found that minority ownership is one of the important factors in increasing company profits. Reference [13] found a close relationship between minority ownership and capital structure. Based on this, we formulate the second hypothesis as follows:

H2 = Minority ownership is influential in determining the capital structure.

2.3 The Role of Minority Ownership with Earnings Management and Capital Structure

Earnings management practice is a practice that can be done by management in optimizing accounting information to stakeholders. The management structure of both directors and commissioners in family companies is mostly filled by families. This is done to secure the interests of the family in the company. We suspect that the interests of the majority of families both in the composition of the board of directors and commissioners, as well as through share ownership, have a very strong dominance in making management decisions, especially corporate capital structure decisions. Meanwhile, [14] found a close relationship between minority ownership and capital structure. Therefore, we formulate the third hypothesis as follows:

H3 = Minority ownership plays a role in influencing the company's earnings management and capital structure.

3 Methods

3.1 Sample

This study uses secondary data obtained through the annual report of family companies listed on the Indonesia Stock Exchange for the period 2010–2020. The sampling method we use is purposive sampling according to the research objectives. Based on this technique, a sample of 90 companies was obtained with a total of 990 observations.

3.2 Research Model

We developed a research model in an effort to answer the research questions we posed as follows:

Model 1:

$$TD_{it} = \alpha_0 + \beta_1 REM_{it} + \beta_2 Min_{it} + \beta_3 REM * Min_{it} + \beta_4 FirmAge_{it} + \beta_5 SIZE_{it} + \epsilon \quad (1)$$

where TD_{it} is the capital structure decision that we proxy through Leverage, REM_{it} is the real earnings management of company i in year t . Min_{it} is the minority ownership of company i in year t . $FirmAge$, and $Size$ are control variables.

3.3 Variable Measurement

TD is the company's leverage as a proxy for the company's capital structure decisions that we measure through the comparison between total debt to total equity.

$$TD_{it} = \frac{Liability}{Equity} \quad (2)$$

We measure real earnings management through the model developed by [15] through the abnormal proxy CFO (AbCFO) as follows:

$$\frac{CFO_{it}}{A_{it-1}} = \alpha_1 \frac{1}{A_{it-1}} + \alpha_2 \frac{Sales_{it}}{A_{it-1}} + \alpha_3 \frac{\Delta Sales_{it}}{A_{it-1}} + \epsilon_{it} \quad (3)$$

CFO_{it} is the operating cash flow of company i in year t and A_{it-1} is the total assets of company i in year $t-1$. $Sales_{it}$ is the change in company sales between years t and $t-1$. We measure minority ownership by the percentage of minority share ownership in family companies. The control variable that we use is $FirmAge$ or company age. We measure the age of the company from the company's inception until the end of the observation year, which is 2020. Previous research used $FirmAge$ as a control variable for family companies. For example, research conducted by [15]. The age of the company reflects the company's reputation in making capital structure decisions. Furthermore, [16] argue that the age of the company plays a very important role in determining capital structure decisions, especially the cost of debt. Then the control variable $Size$ or the size of the company that we measure through the natural logarithm of total assets.

4 Result

Previous research used $FirmAge$ as a control variable for family companies. For example, research conducted by [15]. The age of the company reflects the company's (Table 1).

Based on this distribution, our research sample is dominated by companies belonging to the trading industry as much as 32%, and at least companies belonging to the mining industry as much as 6%. The trading industry is more in demand by family companies because of the lower social and environmental risks and responsibilities compared to the mining industry. Second, after the data was collected, we then carried out a series of Univariate and Multivariate tests. Table 2 represents the univariate test. Univariate test to see how far the data is distributed through the mean, maximum value and standard deviation.

Table 1. Sample Based on Industry

Number	Industry	Number of Companies	Number of Observations	Percentage (%)
1	Consumption	8	88	9
2	Manufacture	13	143	14
3	Trading	29	319	32
4	Mining	3	33	3
5	Agriculture, Plantation	6	66	7
6	Property	15	165	17
7	Other	16	176	18
	Total	90	990	100%

Source: processed data, 2022

Table 2. Univariate and Correlation Tests

	TD	REM	MIN	RENMIN	SIZE	FIRIMAGE
Mean	1.575450	-0.005025	0.283003	-0.000748	9.374489	32.24469
Median	0.910000	-0.010000	0.250000	0.000000	9.380000	30.00000
Std. Dev.	6.156682	0.500396	0.175864	0.068878	0.796990	15.97971
Sum Sq. Dev.	37449.88	247.3915	30.55698	4.687246	627.5713	252286.8
Observations	989	989	989	989	989	989
	1					
	0.0052	1				
	0.0220	0.0068	1			
	0.0186	0.8562	-0.0093	1		
	0.0037	0.0234	0.1852	-0.0080	1	
	-0.0037	-0.0192	-0.0533	-0.0523	0.2170	1

Source: processed data, 2022

Based on Table 2, it is known that the average value of TD or capital structure is 1.57. Thus the ratio between capital structure from debt is 1.57 higher than equity funding. The capital structure of family companies is dominated by debt funding. According to [4], capital structure decisions in the form of debt as a mechanism for family companies in protecting family interests from shareholder domination. Furthermore, it is known that the average value of earnings management is -0.005. Based on this, we can conclude that most of the family firms in our sample practice earnings management but with very

Table 3. Multivariate Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.062197	5.639059	0.011030	0.9912
REM	-1.169078	0.797876	-1.465237	0.1432
MIN	-0.761536	2.102177	-0.362261	0.7172
REM*MIN	11.78322	6.031093	1.953745	0.0510*
SIZE	0.209784	0.639519	0.328033	0.7430
FIRMAGE	-0.007285	0.038775	-0.187877	0.8510
Obs	989			
Adjusted R-squared	0.063223			
F-statistic	1.709364			
Prob (F-statistic)	0.000073			

Source: processed data, 2022

low indications. The average minority ownership in family companies is 28%, the rest is owned by controlling shares.

The correlation between capital structure variables and real earnings management is 0.0052, between capital structure and minority ownership is 0.002, between capital structure and minority ownership interaction and real earnings management is 0.018, between capital structure and company size is 0.0037 and between capital structure and company age of -0.0037 . The correlation between real earnings management and minority ownership is 0.0068, between real earnings management and real earnings management interaction and minority ownership is 0.85, between real earnings management and firm size is 0.023 and between real earnings management and firm age is -0.092 . The correlation between minority ownership and the interaction between real earnings management and minority ownership is -0.0093 , the correlation between minority ownership and firm size is 0.18, and the correlation between minority ownership and firm age is -0.05 . Based on this description, we can conclude that between the variables in our study there is no correlation between variables.

Multivariate testing to see the extent of the relationship, variation between variables and the role of majority ownership in influencing earnings management and capital structure decisions. The multivariate testing step begins with a series of selections of the right model, namely the fixed effect model with balance panel data. Table 3 represents the results of the Multivariate test.

Based on the data above, the significance of the role of minority ownership is 0.05 with a regression coefficient of 11.78. We can conclude that minority ownership plays a role in influencing earnings management and capital structure. Our research shows that minority ownership as one that is able to influence the company's capital structure decisions. Although in family companies, capital structure decisions and earnings management practices are determined by the majority ownership of the family and the founder as president director, our results prove that the voice of minority ownership can

Table 4. Additional Test

Low level of earnings management			High level of earnings management	
Variable	Coefficient	Prob.	Coefficient	Prob.
C	-0.7960	0.2387	7.322	0.2090
REM	0.29740	0.2714	-7.06	0.1337
MIN	-0.0597	0.6961	-4.45	0.0896*
REM*MIN	-1.684	0.3907	17.23	0.1406
SIZE	0.1481	0.0431	-0.09	0.8811
FIRIMAGE	-0.0045	0.3161	-0.01	0.5369
Obs	428		562	

Source: processed data, 2022

be considered in making funding policies. Our research supports the research conducted by [12, 13], however it does not support the research conducted by [7]. Our research answers our third hypothesis.

The governance of family companies in Indonesia has allowed minority ownership to act as an external control mechanism. Even in family firms, our research proves that the presence of minority ownership remains an important part of family management decision making.

4.1 Additional Test

We perform additional testing to see how far the role of minority ownership in companies with high and low earnings management can influence capital structure decisions. The first step we took to perform this additional test was to divide the companies according to their level of earnings management. Then we do the test through regression. Table 4 represents the results of the additional tests.

Based on Table 4, we can conclude that minority ownership plays a more important role in influencing earnings management and capital structure decisions at high earnings management levels. The role of external monitoring is very much needed from minority ownership, especially when family companies make capital structure decisions that have an impact on the interests of minority ownership and the company as a whole. Earnings management carried out by family management with the aim of obtaining funding, either in the form of debt schemes or through the issuance of securities, will have an impact on minority interests.

5 Conclusion

The purpose of this study is to investigate the role of minority ownership in influencing earnings management and financing decisions, identify variations in the relationship between earnings management and financing decisions, minority ownership and financing decisions and explain these relationships through relevant theories.

Based on the results of testing on 90 family companies listed on the Indonesia Stock Exchange for the period 2010–2020, we can conclude that minority ownership has a very important role as part of external monitoring, especially in making capital structure decisions. Minority ownership is considered by management in making funding decisions, so that it does not have a negative impact on the interests of minority ownership. In addition, minority ownership can provide management advice or direction in making capital structure decisions.

This research is far from perfect, especially since testing is limited to family companies. Then the earnings management proxy only uses the CFO abnormal proxy. Therefore, further testing may involve other real earnings management proxies such as abnormal production and accrual earnings management.

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Abstract	<p>Due to Indonesia's negative impacts on water quantity and quality, the water-sensitive industry receives greater attention and pressure from its stakeholders to disclose water-related information. As previous studies indicate that firm characteristics are the drivers of corporate social responsibility disclosure, this study investigates the effect of corporate characteristics on water disclosure in the Indonesian water-sensitive industry. Firm characteristics are employed to represent the stakeholders. The samples are all water-sensitive industry listed on Indonesia Stock Exchange (IDX) in 2018–2019. Data are collected from annual reports and sustainability reports, which are published on corporate and IDX websites. All the developed hypotheses are examined using random effect model. This research finds that firm size positively and significantly influences water disclosure. It means that bigger firm receives higher pressure from stakeholders to create water disclosure. On the other hand, profitability does not substantially influence water disclosure practices. Similarly, higher leverage does not stimulate Indonesian water-sensitive companies to disclose water stewardship information.</p>	
Keywords (separated by '-')	Water disclosure - Water-sensitive industry - Listed companies - Indonesia	



Corporate Characteristics and Water Disclosure in Indonesian Water-Sensitive Industry

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Abstract. Due to Indonesia's negative impacts on water quantity and quality, the water-sensitive industry receives greater attention and pressure from its stakeholders to disclose water-related information. As previous studies indicate that firm characteristics are the drivers of corporate social responsibility disclosure, this study investigates the effect of corporate characteristics on water disclosure in the Indonesian water-sensitive industry. Firm characteristics are employed to represent the stakeholders. The samples are all water-sensitive industry listed on Indonesia Stock Exchange (IDX) in 2018–2019. Data are collected from annual reports and sustainability reports, which are published on corporate and IDX websites. All the developed hypotheses are examined using random effect model. This research finds that firm size positively and significantly influences water disclosure. It means that bigger firm receives higher pressure from stakeholders to create water disclosure. On the other hand, profitability does not substantially influence water disclosure practices. Similarly, higher leverage does not stimulate Indonesian water-sensitive companies to disclose water stewardship information.

AQ1

Keywords: Water disclosure · Water-sensitive industry · Listed companies · Indonesia

1 Introduction

Today, Indonesia is suffering many water-related problems because of climate change, population growth, and business activities [1]. These cause water availability and quality in this country are gradually decreasing. On the other hand, water is essential for human and other creatures' survival [2]. In terms of business impact on water, companies contribute significantly to the water crisis because they use a higher amount of water, and their waste can contaminate water sources with hazardous elements such as metal, mercury, etc. [3, 4]. If companies have poor water management, it can ruin the ecosystem, and human health, in extreme cases, resulting in human death [5].

As the disaster of the water crisis is approaching, stakeholders will more actively scrutinize company's activities [6, 7]. They want companies to use the water effectively and efficiently and minimize the potential for environmental damage [8]. The

water-sensitive industry is believed to receive higher stakeholder attention than the non-sensitive industry. Therefore, companies receive higher pressure from stakeholders to show water stewardship activities and communicate them to the stakeholders through water disclosure [9]. According to stakeholder theory, companies must satisfy stakeholder demands to maintain good relationships [10, 11]. Hence, water disclosure can be an effective medium to share water information, which is expected to meet the demands and pressures of stakeholders [7–9]. In addition, such disclosure can maintain a corporate “social contract” [8]. On the other hand, stakeholders will revoke corporate licenses if companies fail and can no longer operate [12].

In terms of determinants of corporate disclosure, firm characteristics are understood as important drivers of disclosure related to corporate social responsibility [13, 14]. First, previous studies suggest that larger companies are more likely to be subject to public scrutiny [7]. Larger firms have more stakeholders interested in social and environmental activities [15]. Hence, larger firms are more willing to disclose social and environmental information. Second, environmental-related disclosure is sensitive to firm’s financial performance [7]. It provides companies with abundant resources to respond to stakeholder demands; thus, corporate disclosure will be created. Third, companies with a greater leverage ratio will be expected to meet creditor expectations in socially responsible activities [15]. Creditors influence companies to make social and environmental disclosure because they want to assess corporate risk in non-financial aspects such as environmental risk [9]. Therefore, this study adopts these characteristics to investigate their effect on water disclosure in the Indonesian water-sensitive industry. These corporate characteristics can also be discussed in relation to stakeholder pressures [8].

2 Theoretical Framework and Hypothesis

Various theories have been adopted to explain corporate social responsibility (CSR) related disclosure drivers. Stakeholder theory [16] and legitimacy theory [17, 18] are the most dominant theories adopted by scholars. Stakeholder theory postulates that a company’s management is expected to show activities that are expected by stakeholders [15]. Two branches of stakeholder theory represent how companies respond to stakeholder expectations and demands [8]. The normative branch suggests that all stakeholders have a right to be given information about the organizational impact, although stakeholders do not use it [10]. The managerial branch believes that it is impossible for a company to satisfy all unlimited stakeholders [11]. Therefore, managers pay attention to stakeholders that are critical to achieving the company’s goals [19].

Legitimacy theory is closely related to stakeholder theory. It posits that a company needs to ensure that it operates within the bounds and norms of stakeholders. This theory relies on the concept of “social contract” between companies and societies [17, 18]. If a company operates in unacceptable ways, stakeholders will effectively revoke the contract to continue the operations. However, stakeholder demands are not fixed and change over time. Hence, it requires the managers to be responsive to the unpredicted needs. Companies can use corporate disclosure to share information with stakeholders and maintain legitimacy [20].

Corporate characteristics are the common factors investigated in social and environmental disclosure literature. This study only examines the effect of firm size, firm profitability, and leverage ratio. Larger firms are more visible to the public eye so that they more easily attract stakeholder interests [21]. Larger firms are more likely to be subject to consumer hostility, militant employees, and the attention of government regulation bodies [22]. It can be assumed that larger firms use more water so that stakeholders focus on them. Hence, bigger firms are more willing to disclose more water-related information to avoid stakeholders' negative attention. Therefore, this study develops the following hypothesis:

H1: there is a positive association between firm size and water disclosure.

Financial performance can stimulate corporate capability to undertake programs related to social demands [23]. The highly profitable firm is more credible to the public; thus, it raises social expectations of accountability and transparency [15]. Managers need to ensure that the company not only focuses on financial and non-financial aspects, including water disclosure. Previous studies support a positive association between financial performance and corporate disclosure [7]. Therefore, this study proposes the following hypothesis:

H2: there is a positive association between financial performance and water disclosure.

When companies have a higher leverage ratio, it can be said that the creditor is a powerful stakeholder who can influence corporate activity and disclosure [15]. In addition, high-leverage firms are riskier, so managers are expected to disclose information to assure the stakeholders [24, 25]. Yu et al. [7] find that creditor provides significant pressure on the company to disclose water-related information. Hence, it is hypothesized that:

H3: there is a positive association between leverage and water disclosure.

3 Research Method

This study uses 258 water-sensitive companies listed on the Indonesia Stock Exchange from 2018 to 2019. The samples include material, consumer non-cyclical, energy, infrastructure, and properties and real estate industry sector [8]. Data are collected from companies' annual and sustainability reports, which are available on companies' websites.

The dependent variable (water disclosure) is evaluated using an index based on the 24 water parameters developed by Morikawa, Morrison, and Gleick [26]. This study assumes that all parameters are equally important. A value of 1 is given if a water parameter is disclosed in the corporate report and 0 otherwise. A total of these scores are used to measure the extent of water disclosure. Firm size is measured by the total asset presented in the annual report. To avoid non-normality, this variable is transformed using a natural logarithm. Financial performance is defined as return on asset, which is

Table 1. Descriptive Statistics

Variable	Mean	Min	Max	Std. Deviation
WD	2.034	0	8	1.457
SIZE	28.636	22.376	33.030	1.916
PRF	0.016	-1.538	0.606	0.157
LEV	0.518	-0.300	2.629	0.312

Note: WD = water disclosure; SIZE = firm size; PRF = firm financial performance; LEV = leverage.

the ratio of net income and total assets. Leverage is defined as the ratio of total debt and total assets.

The following model is used to test the proposed hypothesis:

$$\text{WD: } \beta_0 + \beta_1 \text{ SIZE} + \beta_2 \text{ PRF} + \beta_3 \text{ LEV} + \varepsilon$$

where:

WD = water disclosure

SIZE = firm size

PRF = profitability

LEV = leverage.

4 Results and Discussions

Table 1 depicts the descriptive statistics for the variables examined in this study. The mean value of water disclosure is 2.034 from a minimum score of 0 to a maximum score of 8. It reports that the level of water disclosure in the Indonesian water-sensitive industry is very low. It supports Zhang, Tang, and Huang [27] that water disclosure is relatively new, meaning water sustainability is not perfectly understood compared to other natural resources [5]. The firm size variable has an average value of 28.636, with a minimum value of 22.376 and a maximum value of 33.030. Firm financial performance ranges from a value of -1.538 to a value of 0.606, with a mean value of 0.016. It shows that companies' financial performance is relatively poor, so they have limited resources to satisfy stakeholder demands, including water stewardship activities and disclosures. Leverage ratio has a mean value of 0.518 indicating that companies highly relies on debt, therefore, creditor may provide higher pressure to companies.

Table 2 shows the correlation matrix for all variables. First, water disclosure positively correlates to firm size ($\rho = 0.095$). Similarly, firm financial performance positively affects water disclosure ($\rho = 0.076$), but it is insignificant. Last, firm leverage ratio is negatively and insignificantly related to water disclosure ($\rho = -0.006$). This study also checks that there is no multicollinearity problem between predictor variables. Gujarati [28] states a multicollinearity problem occurs if the correlation coefficient value exceeds 0.8. It can be seen in Table 2 that all coefficient values are less than 0.8; thus, there is no serious multicollinearity problem. This study also uses the variance inflation factor

Table 2. Correlation matrix

	WD	SIZE	PRF	LEV
WD	1			
SIZE	0.095**	1		
PRF	0.076	0.168***	1	
LEV	-0.006	-0.321***	0.007	1
VIF		4.25	4.24	1.14

Note: WD = water disclosure; SIZE = firm size; PRF = firm financial performance; LEV = leverage. *, **, ***, represent significance at 10%, 5%, and 1%, respectively.

Table 3. Regression Result

Variable	Coefficient	P-value	Decision
SIZE	0.270	0.000*	Supported
PRF	0.189	0.547	Not supported
LEV	0.028	0.906	Not supported
R2	0.148		
F-Stat	40.95		
Prob.	0.000*		

Note: WD = water disclosure; SIZE = firm size; PRF = firm financial performance; LEV = leverage. *, **, ***, represent significance at 10%, 5%, and 1%, respectively.

(VIF) values to assess this issue. Sekaran and Bougie [29] suggest that the value of VIF should not be higher than 10. The values of VIF presented in Table 2 are less than 10, indicating that the multicollinearity problem is unlikely.

Table 3 reports the regression results based on random effect model (REM). This study finds that firm size has a positive and significant effect on water disclosure ($\beta = 0.301$, $p < 0.01$), hence H1 is supported. It is consistent with previous studies finding that larger firms provide a higher level of disclosure [7, 9]. This study confirms that larger firms receive higher stakeholder pressure to show water performance and disclosure. Because their visibility to the public is higher than smaller firms, stakeholders expect bigger companies to be more concerned about the environment, including water. In addition, stakeholders need information regarding water stewardship activities to understand that companies operate in effective and effective ways. Therefore, managers of larger firms cannot ignore stakeholders' demands; thus, water disclosure is produced to maintain the social contract.

This study also finds an interesting finding that the effect of financial performance is insignificant to water disclosure ($\beta = 0.189$, $p > 0.10$). Hence, H2 is not supported. However, this study supports the finding of Burritt et al. [8], who suggest that firm financial performance is not a determinant of water disclosure. This finding indicates that

water stewardship activities and disclosure do not depend on firm profitability. Previous studies argue that highly profitable firms are more credible to the public, raising public expectations to show socially responsible activities [15]. On the other hand, as the water scarcity issue is emerging today, stakeholders ignore the firm financial performance and expect all companies to consider protecting water quantity and quality. Ullah, Muttakin, and Khan [30] document that profitable organizations are more visible and experience greater pressure and demand for non-financial information. Yet, our finding reports that all firms are under public scrutiny because water is important for human life and the ecosystem. Although profitable firms have sufficient financial capability to resolve environmental issues quickly, non-profitable firms must provide a budget to show water performance for their going concern. Therefore, it can be concluded that stakeholders have demands and expectations to all companies to perform water responsibility activities and disclose them to the public without respect to profitability.

Our last finding documents that leverage positively affects water disclosure but is insignificant. This finding supports Wicaksono and Setiawan [9], but it contradicts Yu et al. [7] that firm leverage is a significant driver of water disclosure. Our finding suggests that creditor is likely not interested in water disclosure. It is because the creditor does not use water information to assess corporate risk, so the creditor does not want to influence the manager to produce water disclosure. However, this study assumes that creditors expect the company to disclose all aspects of social responsibility (CSR) rather than a specific subset [9, 24]. It is because the whole set of CSR disclosure provides comprehensive information about corporate non-financial risks; therefore, creditor is more interested in influencing manager to produce CSR disclosure.

5 Conclusions

This paper investigates the effect of corporate characteristics on water disclosure in the Indonesian water-sensitive industry. Following Burritt et al. [8], corporate characteristics can correspond with stakeholder pressures for managers to create water disclosure. This paper finds that firm size is a significant driver for water disclosure in the Indonesian water-sensitive industry. It suggests that larger firms create a higher level of water-related disclosure than smaller firms. It is because a larger firm is more visible so that it receives more attention from the public. However, this study provides unexpected results as firm profitability and leverage have insignificant relationships to water disclosure. It indicates that stakeholder provides pressure without considering firm profitability because a water-sensitive industry contributes significantly to the decrease in water quality and quantity. In addition, the creditor is not interested in water disclosure because it wants the whole set of corporate social disclosure to assess non-financial risks. This research contributes to the literature by providing empirical evidence about corporate characteristics' influence on stakeholder pressure. This paper acknowledges research limitations as research findings should be interpreted cautiously. First, the results may differ if non-sensitive industry is included in the research sample. Second, the use of two years data set may restrict the generalization of the research findings.

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Abstract As an intervening variable of coloration profitability, this study aims to ascertain the impact of capital structure on firm value. The research sample is. 15 corporations from 20 state-owned businesses listed on the Indonesia Stock Exchange (IDX) between 2010 and 2018 made up the research sample. The number of research samples is determined using the purposive sampling technique. The analytic data techniques used

were descriptive statistics, the classic assumption test, the partial hypothesis test, and the intervening test. The study's findings demonstrate that the price-to-book value increases as the return on equity increases. The debt-to-equity ratio decreases as the return on equity increases. The debt-to-equity ratio negatively and negligibly impacts price-to-book value. The debt-equity ratio does not mediate the relationship between return on equity and price-to-book value.

Keywords
(separated by '-')

PBV - ROE - DER



Capital Structure as a Mediating Factor in the Profitability and Firm Value Connection

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Abstract. As an intervening variable of coloration profitability, this study aims to ascertain the impact of capital structure on firm value. The research sample is 15 corporations from 20 state-owned businesses listed on the Indonesia Stock Exchange (IDX) between 2010 and 2018 made up the research sample. The number of research samples is determined using the purposive sampling technique. The analytic data techniques used were descriptive statistics, the classic assumption test, the partial hypothesis test, and the intervening test. The study's findings demonstrate that the price-to-book value increases as the return on equity increases. The debt-to-equity ratio decreases as the return on equity increases. The debt-to-equity ratio negatively and negligibly impacts price-to-book value. The debt-equity ratio does not mediate the relationship between return on equity and price-to-book value.

Keywords: PBV · ROE · DER

1 Introduction

The corporation's mission today is changing from profit maximization (profit maximization), which was the original objective, to creating value for the company (value creation). According to [1] value creation is a goal that is influenced by the company's social benefits as well as its economic performance. State-Owned Enterprises (BUMN) are business entities whose shares are primarily owned by the government, and are one of the numerous business models currently emerging in Indonesia. State-Owned Enterprises, or BUMN, are business entities whose entire or major portion of capital is owned by the state through direct statements deriving from segregated state assets, in accordance with Law of the Republic of Indonesia No. 19 of 2003. In order to realize the welfare of the community, the national economy must be implemented through state-owned companies. Plantations, agriculture, fishing, transportation, trade, telecommunications, energy, construction, finance, and other sectors are some of the industries serviced by SOEs.

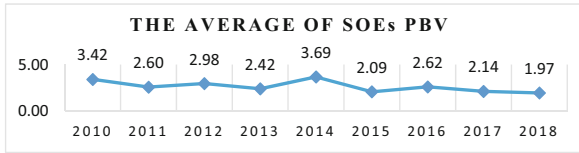


Fig. 1. Price to Book Value (PBV) chart for state-owned businesses listed on the Indonesia Stock Exchange for the years 2010–2018 (Processed by the authors).

From 2015 to 2018, SOE contributions to the APBN increased steadily. The SOEs' contribution to the APBN in 2015 was Rp. 202.6 trillion, a rise to Rp in 2016, 204.1 trillion, and then it grew to Rp in 2017, 223.9 trillion, and it climbed to Rp 257.1 trillion in 2018 as a result of Rp 45.1 trillion in dividend payments and Rp 212 trillion in SOE taxes (www.ekonomi.bisnis.com). However, BUMN shares tended to increase more slowly throughout 2015, which was consistent with the slowdown in the execution of government projects. This is demonstrated by the fact that five state-owned businesses that have lost the most money are PT. Gas Negara Perusahaan (Persero) Tbk. PT (PGAS). Mandiri Bank (Persero) Tbk PT (BMRI). (Persero) Semen Gresik Tbk PT (SMGR). BNI (Persero) Tbk, or Bank Negara Indonesia PT, BBNI, and. BTK Bukit Asam (Persero). (PTBA) (www.finance.yahoo.com) (www.finance.yahoo.com). According to Bloomberg data, the value of PTBA shares plummeted the most in 2015, by 63.12%, followed by PGAS's 54.74% decline, SMGR's 31.17% decline, BBNI's 18.03% decline, and BMRI's 15.55% decline (www.investasi.kontan.co.id). State-owned corporations' value will undoubtedly decrease as a result of the drop in the value of their stock.

According to price to book value (PBV), the value of BUMN enterprises changed as follows between 2010 and 2018 (Fig. 1).

When looking at the graph, the average PBV of SOEs has been fluctuating, with 2010 serving as the basis year for comparison in the year after. Every year between 2010 and 2014 had ups and downs for the average PBV value, but from 2010 to 2014, there was an increase of 7.31%. In 2014, the average PBV value increased significantly, from 34.41% to 3.69 points. 43.36%, which started at 3.69 points in 2014 and fell to 2.09 points in 2015, represented a considerable decline. The average PBV, however, rose by 25.35% to 2.62 points in 2016. In addition, there was a decline in the years that followed, 18.32% in 2017 and 7.94% in 2018. The average PBV of SOEs listed on the IDX had a PBV ratio above 1 during the observation period. PBV ratios above one are typically found in successful companies and show that the stock's market value outweighs its book value (overvalued).

Numerous factors, including the company's external and internal issues, might affect the change in the price to book value. According to [2], rising profitability will result in more shares becoming outstanding, raising the value of the business. According to [3] an increase in a company's profitability will be followed by an increase in its value because investors will respond favorably to the company's strong ability to make profits by investing their capital. According to various research findings, [4] claims that a company's profitability has no bearing on its market value. This is because the company's profits are unstable from year to year and have a tendency to fluctuate, so investors are unsure of the outcomes the company will achieve in the future.

As previously said, the difference between profitability and firm value is estimated since other variables influence how the two variables relate to one another. The capital structure is a factor that is assumed to affect the two variables, according to several publications. According to studies by [5–8], capital structure can act as a mediator between profitability and firm value.

Profitability and firm worth cannot be directly associated, according to the search for some of the pertinent references. Capital structure has the ability to act as a mediator in the link between the two factors. By considering these diverse causes and using capital structure as an intermediary variable, the research aims to examine the relationship between profitability and business value. The discrepancy between profitability and firm value is a topic of this study. Therefore, the purpose of this study is to clarify the direct and indirect relationships between profitability and business value.

2 Literature Review

2.1 Agency Theory

The interests of shareholders in corporations, as expressed in the valuation of the equity in companies, are typically the main focus of the application of agency theory in corporate governance. Let's say that stock price movements can benefit managers. Then, when both positive and negative news is announced to the market, managers are motivated to characterize the company's performance or to take advantage of the situation. This has the potential to deceive outside parties (investors) about the company's value on numerous occasions in a way that benefits managers, [9].

2.2 Signalling Theory

A signal, as defined by [10], is a step taken by a firm to inform investors of how management perceives the company's prospects. Information asymmetry between business management and those interested in the information is demonstrated by signal theory. This signal takes the form of details regarding the steps taken by the administration to carry out the owner's requests. Hartono (2017) asserts that data released as an announcement will serve as a signal for investors to make investment decisions.

2.3 Firm Value

Reference [11], who claim that firm value is an investor's estimation of a firm's level of performance, which is frequently connected to stock prices. Reference [12], stated the same thing, stating that firm value is an investor's evaluation of the company's performance and success, which is represented in the stock price in the market. The valuation of the company as determined by the market's stock price indication will reveal the presence of promising investment prospects. From the many definitions of firm value presented above, it can be inferred that firm value reflects corporate governance as a metric of business success that can draw investors and seeks to optimize both company wealth and shareholder wealth.

2.4 Profitability

According to [2], a number of policies and choices contribute to profitability. The definitive response to how successfully the company has been managed is given by profitability ratios. Furthermore, [13], uses profitability as a ratio to illustrate how profitable a business is. The profitability ratio used by [14], on the other hand, is a ratio that evaluates management effectiveness overall and takes into account both investment and sales profit levels. The more accurately the profitability ratio captures a company's capacity for large profits, the better. Based on the opinions of the experts mentioned above, it can be deduced that profitability is the ability of the business to make money from both sales and investments, which describes the final determination of how successfully the business has been managed and whose benefits will be felt by the business' internal parties or external parties.

2.5 Capital Structure

The capital structure described by [15], can be seen as a balance between the usage of loan capital made up of short-term debt, long-term debt, and own capital. The company's capital structure, according to [16], is permanent financing made up of preferred stock, long-term debt, and shareholder capital. According to [17], a company's capital structure depicts the many financial sources that it uses to fund all of its operations and business expansion. The company's capital structure will be optimal thanks to the combination of strong sources of funding. According to [18], the capital structure is the distribution of funds used to establish a business or business within a corporation. These funds may come from long-term or short-term loans, foreign capital or own capital, and other reserves.

2.6 The Effect of Profitability on Firm Value

Theoretically, signaling theory constructs the link between profitability and business value. Reference [19], asserts that the signaling theory holds that businesses with high levels of profitability will send out a good signal to investors, piquing their interest in purchasing shares. The stock price will be impacted by the increased share demand, which will also raise the company's value. According to [20, 21], profitability is thought to be able to provide assurance of a company's future prospects. The public places a high value on the company since it can provide reliable expectations of future value. According to [22], businesses that can steadily improve their earnings will be viewed by investors as a sign of strength, which will raise the value of the company. On the basis of the justification for earlier research, research hypothesis 1 might be stated as follows:

H1: The firm value increases with profitability.

2.7 The Effect of Profitability on Capital Structure

According to [24], businesses with high levels of profitability will use debt more frequently since lenders like banks and creditors have more faith in these businesses. Reference [23], empirical research linking the debt-to-equity ratio and return on equity. The

findings demonstrate that the debt-to-equity ratio is positively and significantly impacted by return on equity. Additionally, studies by [24–30], were conducted that are pertinent to the findings of the research. Overall, the findings demonstrate that the debt-to-equity ratio is considerably impacted by the return on equity, which is positive. On the basis of the justification for earlier research, research hypothesis 2 might be stated as follows:

H2: The capital structure is better the higher the profitability.

2.8 The Effect of Capital Structure on Firm Value

Debt use can save taxes and agency costs, improving corporate value and increasing efficiency [31]. Debt to equity ratio and price-to-book value have a positive and significant link, according to empirical research by [34]. Another empirical study by [33], supports the idea that any extra debt will raise the price to book value if the debt-to-equity ratio is below the ideal level. In accordance with the findings of the aforementioned research, additional studies by [34–41], have also been conducted. These studies show that capital structure influences business value in a way that increases it. On the basis of the justification for earlier research, research hypothesis 3 can be constructed, and is as follows:

H3: The greater the capital structure, the greater the rise in firm value.

2.9 Profitability and Firm Value Relationship: The Impact of Capital Structure Mediation

Reference [23], the findings demonstrate that the debt-to-equity ratio is positively and significantly impacted by return on equity. Other investigations by [27–30], that are pertinent to the findings of the research above have also been conducted. The findings typically demonstrate that the debt-to-equity ratio is considerably impacted by the return on equity, which is positive. Debt to equity ratio and price-to-book value have a positive and significant link, according to [38–41], conducted further research that are pertinent to the survey's findings and demonstrate the capital structure's sizable positive impact. In terms of the company's value. On the basis of the justification for earlier research, research hypothesis 4 may be created, and it is as follows:

H4: The relationship between profitability and firm value is mediated by capital structure.

3 Data and Metodologi

3.1 Population and Sample

All state-owned businesses that were concurrently listed on the Indonesia Stock Exchange from December 31, 2010, to December 31, 2018, a total of 20 businesses, comprise the population in this study. 15 state-owned businesses that were listed on the Indonesia Stock Exchange between 2010 and 2018 made up the sample for this study. Purposive sampling was used to determine the number of samples.

3.2 Variable Measurement

Price to Book Value (PBV), which is the ratio between the market price per share and book value per share, serves as a stand-in for firm value, the dependent variable, in this study [42]. Return on Equity (ROE), the percentage of total equity to net income, is used as a stand-in for profitability [43]. While the debt-to-equity ratio, which compares total debt and own capital, serves as a proxy for the capital structure as an intervening variable [43].

3.3 Data Analysis

3.3.1 Classic Assumption Test

The purpose of the traditional assumption test is to evaluate the viability of the regression model utilized in this investigation. According to [44], the traditional assumption tests utilized are the normality test, multicollinearity test, heteroscedasticity test, autocorrelation test, and linearity test.

Equation for Regression

The mathematical equation for the relationship between profitability and the impact of excellent corporate governance on business value is as follows:

$$PBV = \beta_0 + \beta_1 ROE + e^1 \quad (1)$$

$$ROE = \beta_0 + \beta_2 DER + e^2 \quad (2)$$

$$PBV = \beta_0 + \beta_1 ROE + \beta_2 DER + e^3 \quad (3)$$

where β_0 is a constant, β_1 and β_2 are the ROE and DER coefficients, respectively. e^2 is a phrase of error at the same time. The term of error can be calculated using this formula: $e = \sqrt{(1 - R^2)}$. If Eqs. 1 and 2 have a considerable impact, the model is considered to be mediate.

3.3.2 Partial Test

The t-test (partial test) evaluates the contribution of each independent or explanatory variable to the variance of the dependent variable [46]. The significance level for the test is set at 0.05. Using $df = n - k$ and the t-table value for the 5% alpha level (0.05), the t-count results are then compared.

4 Result and Discussion

4.1 Classic Assumption Test

4.1.1 Normality Test

The initial observation data for this study totaled 135 ($N = 135$); after the data transformation, the observation data was decreased because there were negative values, to 128

Table 1. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		Model 1	Model 2	Model 3	
N		126	126	126	
Normal Parameters ^{a,b}	Mean	0.000	0.000	0.000	
	Std. Deviation	0.190	0.193	0.472	
Most Extreme Differences	Absolute	0.076	0.046	0.119	
	Positive	0.076	0.046	0.111	
	Negative	-0.052	-0.041	-0.119	
Test Statistic		0.076	0.046	0.119	
Asymp. Sig. (2-tailed)		0.072 ^c	0.200 ^{c,e}	0.000 ^c	
Monte Carlo Sig. (2_tailed)			0.440^d	0.934^d	0.056^d
	99% Confidence Interval	Lower Bound	0.427	0.928	0.050
		Upper Bound	0.452	0.941	0.061

Note(s): a. Test distribution is Normal; b. Calculated from data; c. Lilliefors Significance Correction; d. This is a lower bound of the true significance; e. Based on 10000 sampled tables with starting seed 2000000.

Table 2. Linearity Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.106 ^a	0.011	0.003	0.191
2	0.552 ^b	0.305	0.299	0.193
3	0.151 ^c	0.023	0.015	0.474

Note(s): a. Predictors: (Constant), Lg_ROE; b. Predictors: (Constant), Lg_ROE; c. Predictors: (Constant), Lg_DER, Lg_ROE

(N = 128). The authors then used the Lg10 form to standardize the data. Researchers must also complete the outlier steps in order to limit the observation data to 126 (N = 126). The data were transformed into Lg10 form and the outlier phases, and the following are the results of the normalcy test (Table 1).

The Monte Carlo significance value for regression model 1 is 0.440, for regression model 2, 0.934, and for regression model 5, 0.056, according to the Kolmogorov-Smirnov (Monte Carlo) normality test table data. Since the significant value for each of these regression models is greater than 0.05 (> 0.05), it can be said that the data in the five regression models are regularly distributed.

4.1.2 Linearity Test

It is possible to determine if the regression model in this study is linear or not based on the above linearity test (Lagrange multiplier), and the results are presented in Table 2.

Table 3. Summary of Linearity Test Analysis

Model	C ² -count (n × R ²)	(>/<)	C ² -table (n – k)
1	126 × 0.011 = 1.386	<	(126 – 2) = 124 = 150.989
2	126 × 0.305 = 38.43	<	(126 – 2) = 124 = 150.989
3	126 × 0.023 = 2.898	<	(126 – 2) = 124 = 150.989

Table 4. Multicollinearity Test Result

Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	B				Tolerance	VIF
1	(Constant)	-0.350	0.110		-3.198	0.002		
	Lg_ROE	0.621	0.088	0.514	7.081	0.000	0.977	1.023
	Lg_DER	-0.121	0.035	-0.250	-3.439	0.001	0.977	1.023

Note(s): Dependent Variable: Lg_PBV

The result of c2-count < c2-table indicates that the tree regression models in this investigation are linear, which is inferred from Table 3.

The three regression models used in this study are linear, as shown by Table 3, where the value of c2-count < c2-table.

4.1.3 Multicollinearity Test

Steps of the multicollinearity test; the following are the outcomes of the multicollinearity test run with the SPSS v.25 software (Table 4).

The profitability variable (Lg ROE) does not exhibit multicollinearity symptoms, as can be observed from the test results above, as it has a tolerance value of 0.977 > 0.10 and a VIF value of 1.023 10. The capital structure variable (Lg DER), which has tolerance values of 0.977 > 0.1 and VIF 1.023 10, is another variable that does not exhibit multicollinearity symptoms.

4.1.4 Heteroscedasticity Test

A suitable regression model is homoscedasticity or no heteroscedasticity, which is represented in Table 5. Based on the heteroscedasticity test (white test) above, it can be determined whether the regression model is in the form of homoscedasticity or heteroscedasticity.

The five regression models in this study are either homoscedastic or there is no heteroscedasticity, as shown by the value of c2-count < c2-table in Table 6.

Table 5. Heteroscedasticity Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.133 ^a	0.018	0.010	0.048
2	0.177 ^b	0.031	0.024	0.054
3	0.153 ^c	0.024	0.016	0.174

Note(s): a. Predictors: (Constant), Lg_ROE; b. Predictors: (Constant), Lg_ROE; c. Predictors: (Constant), Lg_DER, Lg_ROE

Table 6. Summary of Heteroscedasticity Test Analysis

Model	C ² -count (n × R ²)	(>/<)	C ² -table (n - k)
1	126 × 0.018 = 2.268	<	(126 - 2) = 124 = 150.989
2	126 × 0.031 = 3.906	<	(126 - 2) = 124 = 150.989
3	126 × 0.024 = 3.024	<	(126 - 2) = 124 = 150.989

Table 7. Autocorrelation Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.201 ^a	0.041	0.033	0.140	2.039
2	0.253 ^b	0.064	0.056	0.196	1.856
3	0.216 ^c	0.047	0.039	0.181	2.002

Note(s): a. Predictors: (Constant), Lg_ROE; b. Predictors: (Constant), Lg_ROE; c. Predictors: (Constant), Lg_DER, Lg_ROE

4.1.5 Autocorrelation Test

The authors use the Cochrane-Orcutt method to perform the autocorrelation treatment stages because there is an autocorrelation regression model in this study and all regression models have a Durbin-Watson value dL value. Using this method, the observation data that originally contained 126 (N = 126) decreased to (N = 124). The Cochrane-Orcutt test results, as they were determined by the SPSS v.25 program (Table 7).

The following conclusions can be drawn from autocorrelation treatment data using the Cochrane-Orcutt test:

1. With 124 observational data points (N = 124) and 1 independent variable (k = 1), Regression Model 1 produced a Durbin-Watson value of 2.039 when compared to the value of the Durbin-Watson table, which is accessible in the appendix. The values of dL and dU were then 1.6909 and 1.7231 respectively. Since table 4.11 shows that there is neither positive or negative autocorrelation if dU (1.7231) > d (2.039) > dL (1.6909)

Table 8. First Hypothesis Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	B		
1	(Constant)	0.201	0.021		9.626	0.000
	CO_Lg_ROE	0.317	0.126	0.224	2.511	0.013

Note(s): Dependent Variable: CO_Lg_PBV

- (2.2769), which denotes accepting the H0 option, the regression model 1 cannot contain autocorrelation.
- With 124 observational data points (N = 124) and one independent variable (k = 1), Regression Models 2 and 5 produced a Durbin-Watson value of 1.856 when compared to the Durbin-Watson table value at a significance level of 0.05 available in the appendix. We arrive at the values of dL = 1.6909 and dU = 1.7231. Therefore, it can be inferred that regression models 2 and 5 do not exhibit autocorrelation since, according to table 4.11, if the H0 option is accepted, then dU (1.7231) > 4 - dL (2.2769), there is neither a positive autocorrelation nor a negative autocorrelation.
 - With 124 observational data points (N = 124) and 1 independent variable (k = 1), Regression Model 3 produced a Durbin-Watson value of 2.002 when compared to the value of the Durbin-Watson table, which is accessible in the appendix. The values of dL and dU were then 1.6909 and 1.7231 respectively. Since table 4.11 shows that there is neither positive or negative autocorrelation if dU (1.7231) > 4 - dL (2.2769), which denotes accepting the H0 option, the regression model 3 cannot contain autocorrelation.

4.2 Partial Hypothesis Test

4.2.1 The Effect of Profitability on Firm Value

The hypothesis testing supports the first hypothesis, which states that “the higher the return on equity, the higher the price to book value,” as shown by the coefficient value of 0.317 with a significance value of 0.013, which is less than = 0.05, and the t-count value (2.511) > t-table (1.65744) at the 5% significance level (= 0.05), with degrees of freedom (df) = 124 - 2 = 122. Considering the 2010–2018 timeframe, this condition demonstrates that return on equity has a favorable and significant impact on the price-to-book value of BUMN companies listed on the Indonesia Stock Exchange. Then either Ho is rejected accepted or the first hypothesis is accepted. These findings are consistent with studies conducted by [45, 46], which found that the price to book value increased as the return on equity increased (Table 8).

These findings suggest that profitability growth—in this instance, a return on equity can demonstrate better company prospects because there is a possibility for increasing profits to be realized by the company, which will boost investor confidence to invest in the business and make it simpler for management to raise money in the form of company stock. According to the signaling theory, businesses that are profitable will subtly notify

Table 9. Second Hypothesis Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	B		
1	(Constant)	0.043	0.019		2.282	0.024
	CO_Lg_ROE	-0.280	0.115	-0.216	-2.440	0.016

Note(s): Dependent Variable: CO_Lg_DER

the market, allowing it to differentiate between businesses of high and low quality. To earn a profit, investors put money into the business. Investors demand a bigger return when a company can generate more profits, which elevates the company's worth and, in this situation, results in a higher price to book value.

4.2.2 The Effect of Profitability on Capital Structure

According to the second hypothesis test, the coefficient value of (-0.280) with a significance value of 0.016, which is less than $= 0.05$, and the t-count value of (-2.440) t-table of (1.65734), at the real level 5% ($= 0.05$), with degrees of freedom ($df = 124 - 1 = 123$), are both less than 0.05. According to this circumstance, the debt-to-equity ratio of BUMN companies listed on the Indonesia Stock Exchange timeframe was negatively and significantly impacted by return on equity. Ho is then disproved, or the second hypothesis is accepted. These findings are consistent with those of [15, 47, 48], who found that the debt-to-equity ratio decreased with an increase in return on equity (Table 9).

These findings show that the management of the company believes that the amount of profit generated by the business determines the ratio of its capital structure in a significant way. This is because the management of the business specified its capital structure based on the amount of return and cost of capital resulting from the use of debt to support the business' operational activities. Profitable businesses tend to focus internal financing and only borrow a little amount from the outside world. Due to a lack of available internal capital and the fact that debt is the preferred external source, less profitable companies typically have higher outstanding debt. This assertion is consistent with the pecking order theory proposed by Myers (1984), which explains that businesses prioritize different funding sources in different order.

4.2.3 The Effect of Capital Structure on Firm Value

According to the third hypothesis test, the coefficient value of (-0.145) with a significance value of 0.140 larger than $= 0.05$ and the t-count value of (-1.485) t-table (1.65744) at the real level 5% ($= 0.05$) with degrees of freedom ($df = 124 - 2 = 122$) can be seen. The debt-to-equity ratio has a negative and negligible impact on the price-to-book value of state-owned businesses that are listed on the Indonesia Stock Exchange, according to this criterion. The third hypothesis is either rejected or Ho is accepted at

Table 10. Third Hypothesis Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.201	0.021		9.626	0.000
	CO_Lg_ROE	0.317	0.126	0.224	2.511	0.013
	CO_Lg_DER	-0.145	0.097	-0.133	-1.485	0.140

Note(s): Dependent Variable: CO_Lg_PBV

that point. These findings are consistent with studies by [51], which show that the debt-to-equity ratio has a negative, non-significant relationship with the price-to-book value (Table 10).

The findings of this study suggest that the value of the company will not be significantly diminished by an increase in the debt ratio. This is the case since the company's debt ratio is within acceptable bounds, preventing a large decline in the company's value. As a result, investors will still be interested in investing in the company despite the interest expense and debt installment payments that the company must make to creditors because it is believed that the company's current debt ratio position is within an acceptable range and has not significantly increased business risk. In this way, investors won't alter their fundamental investment strategies in response to fluctuations in the debt ratio.

4.3 Mediation Test

The coefficient's value reveals the size of the relationship between capital structure as measured by DER and profitability as assessed by ROE. It displays unfavorable and noteworthy outcomes ($a = (-0.280)$ with $\text{sig} = 0.016$). The extent of the impact of capital structure, as assessed by DER on firm value, as measured by PBV, is shown by the coefficient value b , which shows negative and insignificant results ($b = (-0.145)$ with $\text{sig} = 0.140$). The capital structure variable was examined in this study since the coefficient b , an insignificant finding, did not satisfy the mediation requirements. The relationship between profitability and firm value cannot be mediated by debt to equity ratio. H_0 is therefore confirmed, or the fourth hypothesis put out is disproved (Table 11).

This finding suggests that great profitability does not necessarily translate into a low capital structure. Despite rising company profitability, state-owned businesses still rely on debt rather than capital financing (external funds). The company's debt ratio, whose growth does not correspond to the pattern of company profitability, does not significantly influence the investment choices of investors. Consequently, the impact on raising the company's worth is similarly minimal.

Table 11. Intervening Test Results

Antecedent	M (DER)					Y (PBV)				
		Coeff.	SE	Sig.	t		Coeff.	SE	Sig.	T
X (ROE)	<i>a</i>	-0.280	0.115	0.016	-2.440	<i>c'</i>	0.317	0.126	0.013	2.511
	-	-	-	-	-	<i>c</i>	0.358	0.124	0.005	2.885
M (DER)	-	-	-	-	-	<i>b</i>	-0.145	0.097	0.140	-1.485
constant	<i>i_M</i>	0.043	0.019	0.024	1.957	<i>i_{Y'}</i>	0.201	0.021	0.000	9.626
	-	-	-	-	-	<i>i_Y</i>	0.195	0.021	0.000	9.476
		$R^2 = 0.047$					$R^{2'} = 0.081$			
		F(.0699) = 35.858, $\rho < .005$ $R^2 = 0.064$								

5 Conclusion and Limitation

Investor confidence in the company's ability to increase profits will dramatically boost investment levels. Profitable businesses tend to favor internal financing over external investment; thus they only need modest amounts of external capital. Because the company's debt level has not risen above the ideal level, an increase in the debt ratio won't considerably lower its worth.

Because the research object only employs state-owned enterprises as samples, the study's findings cannot be generalized; as a result, the study's findings do not adequately represent all the companies listed on the Indonesia Stock Exchange. Additionally, because the observed factors are restricted to profitability, sound corporate governance, and structure, they do not fully account for all aspects of what influences firm value increases and drops. Future research should broaden the study's subject, include observable factors, and employ many proxies for each experimental variable.

Author Contribution. Contribution of Author: A.A. help with conceptualization, formal analysis, and the creation of original works revision, editing, and drafts. E.N. support formal analysis and methods. M.R. participated in the analysis of the data, writing an initial draft, then revising and editing it. All authors read and concur published edition of the writing.

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Chapter 4

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Abstract

This paper aim to examine the influence of financial performance and disclosure of corporate social responsibility on the market value of consumer goods manufacturing companies listed on the Indonesia Stock Exchange in 2019–2020. The investigation utilizes secondary data extracted from annual financial statements. This study employs a sample of 50 companies that was selected purposively. By employing multiple linear regression model, the test results demonstrate a significantly positive relationship between financial performance as a proxy for return on assets (ROA) and firm value (Tobins Q). These results indicate that the company's capability to generalize assets into profits has a positive impact on the company's market value. Other findings indicate that corporate social responsibility as proxied by the global reporting initiative (GRI) index has a positive and statistically significant influence on company value, implying that disclosure of social responsibility investments has contributed to the enhancement of business reputation. This study can serve as a practical resource for business actors seeking to maximize corporate value by improving financial performance and disclosing social responsibility initiatives.

Keywords
(separated by '-')

Profitability - Corporate Social Responsibility - Company Value



Impact of Financial Performance and CSR Disclosures on Consumer Goods Industry Companies

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Abstract. This paper aim to examine the influence of financial performance and disclosure of corporate social responsibility on the market value of consumer goods manufacturing companies listed on the Indonesia Stock Exchange in 2019–2020. The investigation utilizes secondary data extracted from annual financial statements. This study employs a sample of 50 companies that was selected purposefully. By employing multiple linear regression model, the test results demonstrate a significantly positive relationship between financial performance as a proxy for return on assets (ROA) and firm value (Tobins Q). These results indicate that the company's capability to generalize assets into profits has a positive impact on the company's market value. Other findings indicate that corporate social responsibility as proxied by the global reporting initiative (GRI) index has a positive and statistically significant influence on company value, implying that disclosure of social responsibility investments has contributed to the enhancement of business reputation. This study can serve as a practical resource for business actors seeking to maximize corporate value by improving financial performance and disclosing social responsibility initiatives.

AQ1

Keywords: Profitability · Corporate Social Responsibility · Company Value

1 Introduction

During the Covid-19 outbreak, many Indonesian companies were under financial duress and neglected their social responsibility efforts. Companies involved in CONSUMER GOODS, on the other hand, have seen increasing financial performance and social responsibility initiatives focused at assisting residents infected with the Covid-19 virus. This phenomenon indicates that, although the Covid-19 pandemic, consumer goods firms are profitable and investing their wealth in socially responsible actions. Based on this occurrence, the goal of the study is to explore the impact of financial performance and disclosure of social responsibility investments on the company's market value.

Based on occurrences in Indonesia, the Covid-19 pandemic might be considered as an opportunity for corporations to improve their reputation and future financial performance. Many prior research have demonstrated that a company's market value is closely

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related to its social responsibility and financial performance. Investor confidence in purchasing company shares is influenced by the firm's valuation, which affects performance and future expectations [1, 2]. The financial success of a firm as reflected in its financial statements for a given period is an important factor that investors consider when investing in stocks. Financial statements are used by investors to forecast future earnings and as a decision-making tool [3]. Financial statements are reports that show the existing or forecast financial position of a corporation [4]. Global economic success will compel companies disclosing their social responsibilities. Corporate social responsibility can raise a company's performance by improving its image and attracting new resources [3].

According to [5], corporate social responsibility leads to a competitive advantage and improved revenues. Meanwhile, [6] shown that investing in social responsibility has a considerable positive influence on firm sustainability. Reference [7] discovered evidence that social responsibility promotes company reputation improvement. Another study found that investors are interested in the disclosure of social responsibility in the social and environmental domains while making investment decisions [7].

Social responsibility has a positive and considerable effect on corporate value, according to research [8, 9]. The purpose of this study is to assess the motivations for social disclosure as a measure of social responsibility [10–12]. According to Reintjes [13], the influence of sustainability disclosure on firm value can predict future financial success. According to [14], the perceived benefits of social responsibility outweigh the costs and have an impact on raising corporate value. Social responsibility include the protection of employee welfare, which can boost productivity, business image, and public trust, boosting brand image and competitiveness. Social responsibility can help to build long-term development goals [15].

According to research [16, 17], social responsibility has a favorable association with firm value [18]. This statement indicates that when a corporation fails to declare its social responsibility efforts, the impact on the value and reputation of the company decreases. On the other side, when firms report on their social responsibility efforts, their stock value rises. Social responsibility is defined as a notion that encompasses the environment, employees, communities, and shareholders, as well as the environmental, social, and governance aspects. Firm value serves as a proxy for Tobin's Q as the dependent variable. Tobin's Q is calculated by [19] as the entire book value of assets minus book value and equity market value, divided by the total book value of assets. Tobin's Q is a variable used to calculate a company's value based on its future market value [20, 21].

Several prior studies have demonstrated that the higher the Return on Assets, the greater the firm value [22–24]. Other study, on the other hand, indicates that Return on Assets has a negative and small impact on the company's value [25, 26]. According to these studies, an improvement in profitability or financial performance cannot affect market perceptions of firm value because other factors are suspected to be disruptive.

The differences in prior studies' findings on the effects of social responsibility and financial performance on company market value make this an issue worth debating. Several earlier research concluded that there is no association between disclosure and financial performance [27–31]. Stakeholders prefer high-profit corporations to those that report on social responsibility [30]. These findings are supported by a study [32] that discovered that disclosing social responsibility has no influence on corporate value.

According to research [33], social responsibility that focuses on community participation has a direct positive impact on firm value, whereas [3, 34] state that the disclosure of social responsibility has a positive and significant effect on firm value. As a result, the findings of this study will fill a void left by earlier research.

2 Literature Review

This study employs compliance theory to demonstrate how financial performance and corporate social responsibility impact corporate value. According to compliance theory [35–37], companies must comply with rules and norms that are realized through social action in order to gain recognition from society and the environment, business stability, and achieve good corporate governance practices [38].

Corporate value is a reflection of stakeholders' confidence in the company's ability to meet specified conditions, as a result of the company's operations from their inception to the present. According to [17], optimizing company values is a company's normative objective. For publicly traded corporations, maximizing company value equates to maximizing the stock market price, which maximizes the wealth of shareholders or company owners [18].

The profitability ratio based on Return On Assets is a measurement of a company's capacity to generate profit from its assets [22]. Return on Assets measures profitability by indicating a company's capacity to generate profits from its total assets [39]. Tobins Q is utilized to forecast firm worth by comparing market value to accounting value [40–42].

3 Methodology and Data Analysis

Secondary data from annual reports of consumer goods manufacturing companies listed on the Indonesia Stock Exchange in 2019–2020 is utilized in this study. This study gathered information from 94 annual reports of Indonesian consumer products manufacturing companies. However, many annual reports lack the necessary information for this study. As a result, the sample was chosen on purpose using the following criteria: companies that provide complete information in line with the objectives of this study. Previous research has demonstrated that purposive sampling is suitable for all types of data and generates a convenience sample (Van Ryzin, 1995). Ultimately, a sample of 50 selected companies was obtained for this study.

The assessment of the return on asset ratio (ROA) variable in this study refers to research [43], specifically by dividing total assets (TA) by earnings after tax (EBT) (EAT). Meanwhile, the social responsibility variable is measured using the global reporting initiative (GRI) index score which is displayed in the company's annual report. Furthermore, according to a study [44], the Tobins Q variable is calculated by adding the liquidation value of preferred stock (PS), year-end value of common stock (MVE), book value of inventory (BVI), and total debt (TD), which is then divided by the book value of the company's total assets (TA).

Multiple linear regression models are used in this study to analyze the influence of financial performance (ROA), corporate social responsibility (CSR), and firm market value (Tobins Q). This model is widely used to determine the impact of the independent

Table 1. Statistik Deskriptif

Variable	N	Minimum	Maximum	Mean	Std. Deviation
ROA	50	3.72	9.32	5.21	3.39
CSR	50	2.73	0.43	-0.84	0.43
Tobins Q	50	2.35	8.11	1.47	2.44
Valid N (listwise)	50				

variable on the dependent variable (Wang et al., 2013). The econometric model in this study is defined as follows:

$$\text{Tobins Q} = \alpha + \beta_1 \text{ROA} + \beta_2 \text{CSR} + \mu \quad (1)$$

where Tobins Q is the company's market value; ROA is the return on asset ratio; CSR is a the value of global reporting initiative (GRI) index; α is constant; β is coefficient; μ is error sign.

4 Result and Discussion

Table 1 illustrates that the Tobins Q variable with an average value (mean) greater than 1 suggests that the company's capital market value tends to rise. With a standard deviation of 2.43%, when the standard deviation value is more than the average value, the outcomes are poor. Because the standard deviation is relatively high, the spread of data produces aberrant results and promotes bias. Tobins' Q has a minimum value of -3.72% and a high value of 8.11%. According to this result, the Tobins Q fluctuation is not exceptionally high.

The ROA variable has an average value (mean) of 5.21% and a standard deviation of 3.38%. Because the standard deviation is less than the mean, the findings are fairly good. This is because the deviation's reflection is so great that the data distribution produces normal results and does not induce bias. The lowest ROA value is -3.72% and the highest is 9.32%. These findings imply that changes in Return On Assets are not excessive.

The CSR variable has an average (mean) value of -0.84% and a standard deviation of 0.43%, where the standard deviation is less than the mean, indicating that the results are fairly satisfactory. This is due to the fact that the standard deviation is a reflection of a very large variance, therefore the data distribution displays normal results and is not biased. Minimum CSR value is -2.73% and highest -0.43%. These findings demonstrate that changes in social responsibility are not excessively high.

This study tested the hypothesis to determine the effect of financial performance and Corporate Social Responsibility on the market value of a firm, and the following findings were determined (Table 2).

[AQ2](#)

It is recognized that financial performance influences company value (Tobins Q) based on partial test findings of financial performance (ROA). The study [7] supports the conclusion that financial performance has a favorable effect on firm value. This

Table 2. Regression Results

Variable	Coefficient	t-Statistic	Prob
C	111.18	0.35	0.73
ROA	-0.34	-2.40	0.02**
CSR	197.57	2.66	0.01*

Note(s): Dependent variable is Tobin Q; Signs * and ** indicate p-value < 1% and p-value < 5%, respectively

demonstrates that the higher ROA, the greater the impact on the company's value, which will likewise rise. A positive ROA suggests that a profit can be made on the total assets utilized to operate. For investors, an evaluation of the company's capacity to generate profits is essential. The larger the profit of a business, the better its performance. It can be claimed that the better the company, the higher its worth.

The t-test results explain the value of - t in the regression model, indicating that the independent variable on the dependent variable influences firm value substantially. Disclosure of social responsibility has a t-value of 2.65 and a significance value of $0.01 < 0.05$, suggesting that disclosure of social responsibility influences corporate value (Tobins Q). The greater the disclosure of social responsibility, the greater the impact on the company's value.

5 Conclusion

This study examines the effect of financial performance and social responsibility on the market value of corporations by examining consumer products manufacturing firms in Indonesia during the Covid-19 pandemic. It has been demonstrated that the financial performance proxied by ROA has a positive and significant effect on the company's value proxied by Tobins Q. The higher the ROA, the better the value of the company. A positive ROA indicates that the company can generate a profit from its total operating assets. Disclosure of social responsibility (CSR) has a positive and substantial effect on corporate value, as measured by Tobins Q. The greater the extent to which a firm discloses its social disclosure features, the larger the effect on the company's value. This study suggests, based on these findings, that the Covid-19 pandemic presents a chance for corporate actors to raise firm value by investing in greater social responsibility, which ultimately improves future financial performance.

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Keywords (separated by '-')	audited financial statements - audit results - tax	



The Determinant Analysis of the Length of Time for Submission of Financial Statements on Manufacturing Companies in Indonesia 2016–2020 Period

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Abstract. Companies that go public have an obligation to publish audited financial statements. Financial statements contain information as a positive or negative signal for stakeholders for economic decisions. The company must pay attention to the length of time for submitting the company's financial statements. This study examines the effect of tax avoidance, managerial ownership, institutional ownership and audit quality on the length of time for submitting financial statements. The analysis technique uses classical assumption test and multiple linear regression. The results of the study show that managerial ownership has a significant positive effect on the length of time for submitting financial statements. Audit quality has a significant negative effect on the length of time for submitting financial statements. Meanwhile, tax avoidance and institutional ownership do not have a significant negative effect on the length of time for submitting financial statements.

AQ1

AQ2

Keywords: audited financial statements · audit results · tax

1 Introduction

The preparation of financial statements aims to provide information for stakeholders. The information contained in the financial statements is a positive or negative signal for the company. The obligation of a go public company is to compile reliable financial statements for interested parties. Companies must pay attention to the length of time the company's financial statements are submitted. Financial statements are prepared to provide information on the financial position, financial performance of the company as one of the economic considerations for stakeholders in making business decisions [10]. Financial statements show how far management is responsible for the resources it manages. Financial statements are the result of reflection of economic transactions related to the operational activities of a company. Financial statements contain financial and non-financial information as a signal to the company's stakeholders.

AQ3

Companies listed on the Indonesia Stock Exchange (IDX) are required to report and or publish audited financial statements with the provisions of no later than the end of the fourth month after the date of the financial statements as of December 31st. If the go public companies late in submitting financial reports in accordance with the provisions set by the Financial Services Authority (Indonesian abbreviation is OJK) they will be subject to administrative sanctions and fines in accordance with the provisions of the legislation. Companies that are listed and traded on the Indonesia Stock Exchange (IDX) have an obligation to publish audited financial statements to stakeholders. This is done so that stakeholders can get the information signals in the company as a consideration in making economic decisions.

BAPEPAM Regulation Number X.K.6 in conjunction with BAPEPAM No. KEP-431/BL/2012, states that Issuers or Public Companies listed on the stock exchange are given a maximum period of four months from closing the books to submit their audited financial statements. Financial Services Authority Regulation Number 29/POJK.04/2016 concerning Annual Reports of Issuers or Public Companies. This regulation regulates companies to provide accurate information to investors regarding the condition of the company's performance and in order to keep up with global capital market developments, but in reality, there are still delays in submitting annual financial statements on the Indonesia Stock Exchange (IDX). If this is not complied with by the company, the Indonesian Stock Exchange (IDX) will announce and impose sanctions on the company, starting with warnings, fines and suspension of shares traded on the stock exchange.

In 2020 there were around twenty six listed companies that had not submitted audited financial statements for audited financial statements ending as of December 31, 2019 to August 29, 2020. **Based on the decision letter of the Board of Directors of PT. Indonesia Stock Exchange No. Kep-00089/BEI/10-2020 concerning relaxation of the deadline for submitting Financial Statements and Annual Reports, in 2021 there will be around eighty eight companies that have not submitted their audited financial statements until August 31, 2021 consisting of manufacturing companies, insurance companies, services (Transportation, Hotels and Telecommunication).** Then the decision letter of the Board of Directors of PT. Indonesia Stock Exchange Number Kep-00024/BEI/04-2022 dated April 28, 2022 regarding the change in the relaxation of the deadline for submitting audited financial statements and annual reports, there are forty-nine stock listed companies have not submitted audited financial statements for financial statements ending as of 31st December 2021.

The audit must be carried out with great care, thoroughness and sufficient and appropriate collection of audit evidence, considering the amount of material misstatement in the financial statements as the basis for providing an audit opinion. As a result, the auditor needs time to collect sufficient and appropriate audit evidence. The audited financial statements can be published by the company after the auditor has completed the process of examining the financial statements. Auditors need time to complete audit work and make companies submit audited financial statements sometimes late on the Indonesian stock exchange. Reference [11] confirm that the auditor's report is prepared in writing, systematically, and contains as required by the professional association of auditors, valuable information for users who need it. The financial statements that are accompanied by

an independent auditor's report provide a signal of positive and/or negative information for the company's stakeholders to make strategic and economic decisions.

The factors that can affect the submission time of audited financial statements are divided into external and internal factor [12]. The company's internal factors such as those related to the company's financial performance, corporate governance, the risk of the company's business processes or efforts to avoid paying taxes. The company's external factors such as audit quality. Management behaviour usually tends to delay publishing financial statements when the information contained in the financial statements is dominated by negative information [19]. The results of the [13] research on Tax Avoidance and Institutional Ownership have a significant negative effect on the length of time for submitting financial statements, while managerial ownership has no effect on the length of time for submitting financial statements.

The results of the [17] research show that the Audit Committee, Audit Quality and Independent Commissioner have a significant positive effect on Timeliness Reporting, Institutional Ownership has a significant negative effect on timeliness reporting. Research results [18] shows that the Independent Commissioner and the Audit Committee have no significant positive effect on the Timeliness of Submission of Financial Reports. KAP's reputation and audit opinion have a significant negative effect on Timeliness of Submission of Financial Reports. The existence of gaps in the results of previous studies provides a gap for researchers to conduct this research. The research questions were posed as follows: Does tax avoidance affect the length of time for submitting financial statements? Does managerial ownership affect the length of time for submitting financial statements? Does institutional ownership affect the length of time for submitting financial statements? Does audit quality affect the length of time for submitting financial statements? The purpose of the study was to obtain empirical evidence on the effect of tax avoidance, managerial ownership, institutional ownership and audit quality on the length of time for submitting financial statements.

2 Literature Review and Hypothesis Development

2.1 Signal Theory

According to [9], company management provides signals to stakeholders through the financial statements which they prepare and publish. The financial statements contain the hope that the parties which outside the company make changes to the valuation of the company. Management will try to send a signal that contains strong information to be able to change the assessment of the company's external parties. Spence (1973) in [9] states that signal theory explains the actions taken by the signaller to influence the behaviour of the signal receiver. Signal theory is concerned with understanding how one signal is valuable and useful while another signal is useless. Signalling theory talks about the actions of company management providing signals about the company through various aspects of financial information disclosure to be seen as a signal for investors as the basis for making economic decisions. Disclosure of financial information, one of which is the presentation and publication of financial statements that have been audited by an independent auditor to users as a basis for making economic decisions.

2.2 The Effect of Tax Avoidance on the Length of Time for Submitting Financial Statements

Tax avoidance is one form of tax plannings that contains information and signals for stakeholders about the current condition of the company. The auditor will take a long time to detect tax avoidance that may be carried out by the company so that it has an impact on the length of time for submitting financial statements. Several previous research results show that the tax avoidance variable has a negative effect on the length of time for submitting financial reports [14, 16]. The companies that do tax avoidance tend to take longer to submit their financial statements.

H1: Tax avoidance has a significant negative effect on the length of time for submitting financial statements.

2.3 The Effect of Managerial Ownership on the Length of Time for Submitting Financial Statements

The managerial share ownership will encourage managers to be careful in making decisions and have an influence on the preparation of financial statements. Financial statements contain both positive and negative information as a signal to stakeholders. The managers with share ownership in the company will be more responsible for managing the company and try to perform better. One of the managements with good performance is submitting the company's financial statements in a timely manner. Research result of [1, 14] provide evidence of managerial ownership has a significant effect on the length of time the company's financial statements.

H2: Managerial Ownership has a significant positive effect on the length of time for submitting financial statements.

2.4 The Effect of Institutional Ownership on the Length of Time for Submitting Financial Statements

The preparation of financial statements is influenced by the capital ownership by outsiders [3]. The involvement of institutional parties in the ownership of a company's shares will increase control for better performing management. Institutional Ownership will provide information signals for stakeholders about the condition of the company in the current year. The results of previous research [1, 17] state that institutional ownership has a significant negative effect on the timeliness of company financial statements.

H3: Institutional ownership has a significant negative effect on the length of time for submitting financial statements.

2.5 The Effect of Audit Quality on the Length of Time for Submitting Financial Statements

Audit Quality is a description of the process of audit results carried out based on audit standards and quality control standards as a measure of the implementation of the duties

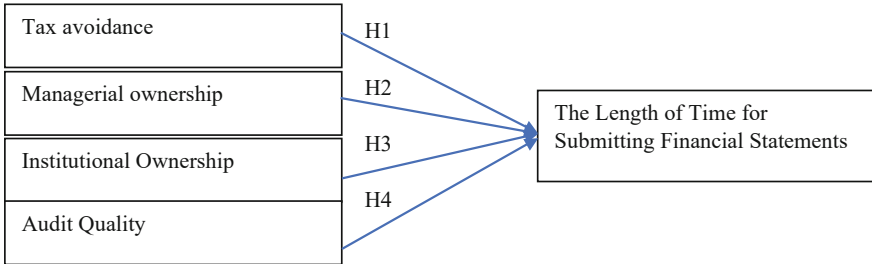


Fig. 1. Research Model

and responsibilities of an auditor's profession [21]. Audit activities generally take a long time so management tries to plan the audit process earlier in order to provide better results. Quality audit results will provide a signal for the company's stakeholders. Audit quality is one of the triggers for companies to submit their financial statements in a timely manner. An earlier audit will make the auditor more careful in auditing and submitting the audit results in a timely manner so that the time for submitting the company's financial statements on the stock market is also timely. Research by [18] shows that audit quality has a negative effect on the length of time for submitting financial statements. The fourth hypothesis proposed is:

H4: Audit quality has a significant negative effect on the length of time for submitting financial statements.

AQ4 The Research Model is described as follows (Fig. 1).

3 Research Methods

This study uses a quantitative approach that emphasizes testing theories, research variables with numbers and analysing data through statistical procedures [8]. The research data was taken using purposive sampling method with the following criteria: (1). Manufacturing companies in the various industry sub-sectors that publish annual financial statements published during 2016–2020. (2). The company's Annual Report that has been audited for the 2016–2020 period. (3). The company earned a profit during the 2016–2020 period. (4). The company has managerial and institutional ownership in the 2016–2020 period.

The independent variables of this study consist of tax avoidance (X1) measured by the value of the Cash Effective Tax Rate (Cash ETR), managerial ownership (X2) is measured by the number of shares owned by the company's management such as the board of directors, the board of commissioners. Then the third independent variable is institutional ownership (X3) measured using the ratio between the number of shares owned by the institution to the number of company's shares outstanding as a whole [20]. The fourth independent variable, namely audit quality (X4) is measured by dummy, which is given a value of 1 if the company is audited by the Big Four KAP and given a value of 0 if the company is not audited by the Big Four KAP [15]. The dependent variable (Y) the length of time for submitting financial statements is measured by using

Table 1. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.575 ^a	0.954	0.914	24.530	1.991

Note(s): a. Predictors: (Constant), tax avoidance, managerial ownership, institutional ownership, audit quality; b. Dependent Variable: Length of time

Source: Data processed 2022

the number of days it takes to announce the audited annual financial statements to the public from the end of the financial statements as of December 31st [6]. The analysis technique in this study uses the classical assumption test consisting of normality test, heteroscedasticity test, multicollinearity test, and autocorrelation test. Multiple linear regression analysis was conducted to examine the effect of the independent variables (tax avoidance, managerial ownership, institutional ownership, and audit quality) on the dependent variable (length of time for submitting financial statements). The research data was processed using the SPSS 22 program.

4 Results and Discussion

This study uses audited financial statements data from 26 companies for the five years for 2016–2020 period. The research sample is 130 research data. Classical Assumption Test in this study uses the normality test by performing the Kolmogorov-Smirnov (K-S) test. K-S test results show a significant value of 0.065 which is above 0.05 ($0.065 > 0.05$), it can be concluded that the data in this study is normally distributed (Table 1).

Autocorrelation test using Durbin Watson test obtained a value of 1.991. Because the value of DW (1.991) is between dU (1.7774) and $4-dU$ (2.2226), it can be concluded that there is neither positive nor negative autocorrelation. Multicollinearity test is seen from the value of tolerance and VIF. The test results obtained for tax avoidance of tolerance value of 0.900 and VIF of 1.111, managerial ownership of tolerance value of 0.874 and VIF of 1.144, institutional ownership of tolerance value of 0.858 and VIF of 1.165, audit quality of tolerance value of 0.940 and VIF of 1.063. Thus, the tolerance value is less than 0.10 and the VIF is more than 10, it is concluded that there is no multicollinearity between the independent variables in the regression model. Heteroscedasticity testing can also be seen from the Glejser test to regress the absolute residual value of the independent variable. The significance value for the Tax Avoidance variable is 0.327, Managerial Ownership is 0.113, Institutional Ownership is 0.783 and Audit Quality is 0.183, it can be said that the data in this study did not experience heteroscedasticity disorders.

4.1 Multiple Linear Regression

Multiple linear regression test was used to see the effect of independent variables consisting of tax avoidance variables (X1), Managerial Ownership (X2), Institutional Ownership (X3) and Audit Quality (X4) on the length of time for submitting financial statements

Table 2. Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	B		
1	(Constant)	84.045	11.210		7.497	.000
	PenghPajak	-14.206	8.474	-.148	-1.676	.096
	KepMNJ	105.276	30.905	.306	3.406	.001
	KepInst	13.117	13.841	.086	.948	.345
	KuAudit	-12.356	4.841	-.221	-2.552	.012

Note(s): a. Dependent Variable: The length of time

Source: Data processed 2022

(Y). The results of research data processing for multiple linear regression are presented in Table 2.

[AOS](#)

4.2 The Effect of Tax Avoidance on the Length of Time for Submitting Financial Statements

The results of multiple linear regression obtained a significant value of 0.096 with a negative direction. It means that tax avoidance does not have a significant negative effect on the length of time for submitting financial statements. Tax avoidance is a form of tax planning by exploiting loopholes in tax regulations. Tax avoidance requires the right business strategy and sufficient time for the company to design it. Companies that go public will consider many things before doing tax avoidance. Because tax avoidance can give a negative signal to company stakeholders. Companies that go public will pay close attention to the timing of their financial statements so that they do not avoid taxes.

4.3 The Effect of Managerial Ownership on the Length of Time for Submitting Financial Statements

Statistical test using SPSS 22 obtained a significant value of 0.001 with a positive direction. It means that managerial ownership has a significant positive effect on the length of time for submitting financial statements. Because managerial share ownership will encourage the board of directors and commissioners as well as other top management to be careful in making decisions. Directors, board of commissioners and top management as the company's operational managers as well as company shareholders. They will be more responsible in managing the company with a sense of belonging to the company. Managerial ownership will affect the performance of the management better. Management will pay attention to the length of time the company's financial statements are submitted because they realize that the financial statements are a reflection of its performance and provide a positive signal for company stakeholders.

4.4 The Effect of Institutional Ownership on the Length of Time for Submitting Financial Statements

The results of data processing using SPSS 22 obtained a significant value of 0.345 with a positive direction. It means that institutional ownership does not have a significant negative effect on the length of time for submitting financial statements. Because institutional ownership is one of the external controls on management performance contained in the financial statements. Institutional ownership should give a positive signal if it is accompanied by a fairly large proportion of institutional ownership in the company. However, institutional ownership that is not large cannot encourage management to submit financial statements in a timely manner or pay attention to the length of time for submitting financial statements.

4.5 The Effect of Audit Quality on the Length of Time for Submitting Financial Statements

Audit quality has a significant value of 0.012 with a negative research direction. It means that audit quality has a significant negative effect on the length of time for submitting financial statements. Audit quality is an examination process based on audit standards, auditor's code of ethics, appropriate audit procedures and sufficient and appropriate audit evidence so that audit results are of high quality. Quality audit results provide positive information for stakeholders. Audit quality is shown from planning to reporting audit results, which pays attention to time. In other words, audit quality will have an impact on the length of time the company's financial statements are submitted. This study supports [18] regarding the results of their research which provides evidence that audit quality has a negative effect on timeliness reporting.

5 Conclusions

Financial statements contain information that is useful for stakeholders to be taken into consideration in making economic decisions. The information gives a positive or negative signal about the condition of the company. So that the company's management must pay attention to the length of time for submitting its financial statements. The results of this study indicate that audit quality as a result of the auditor's work is an integrated process starting from planning to reporting the audit results. The financial statements as the object of examination will be evaluated, assessed by the auditor based on the established criteria. Go public companies listed on the stock exchange have the obligation to submit audited financial statements to the stock market and other interested parties. So that the length of time for submitting the company's financial statements is influenced by the quality of the audit. The managerial ownership variable has a significant positive effect on the length of time for submitting financial statements. The research results also show that tax avoidance and institutional ownership do not have a significant effect on the length of time for submitting financial statements.

The implication of this research is that the length of time for submitting financial statements can be influenced by internal factors and external factors of the company.

Internal factors such as tax avoidance and managerial ownership. External factors can be seen from institutional ownership and audit quality. Further research can examine the risks related to business processes and financial performance from the company's internal aspects. This study takes research samples from manufacturing companies for the 2016–2020 period. Future research can extend the year of observation for better results.

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Chapter 6

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Abstract



This study aims to determine the effect of service convenience on customer satisfaction, repurchase intention and word of mouth at Esthetic Rosereve Jakarta. The population in this study are Esthetic Rosereve Jakarta customers who have been customers since 2015 and the population is not limited. In this study, because the population is not limited, the sampling in the study was carried out using the formula Hair et al. [27] with the assumption of $n \times 5$ to 10 observed variables (indicators). So in this study the number of samples is the number of indicators $\times 5 = 19 \times 5 = 95$ respondents. The data collection method used in this research is to use a questionnaire from customers of Esthetic Rosereve Jakarta. Data analysis method using Partial Least Square. The findings in this study prove that: (1) service convenience has a positive and significant effect on customer satisfaction, (2) Service convenience has a positive and significant effect on repurchase intention; and (3) service convenience has a positive and significant effect on word of mouth at Esthetic Rosereve Jakarta. Suggestions for Esthetic Rosereve: (1) improve services, especially in the payment process, namely non-cash payments, such as collaborating with OVO, Go-Pay or Shopee-Pay which are digital payment services and are currently popular and widely used by consumers. (2) Increase innovation in facial treatment menus, (3) carry out more attractive and diverse promotions, (4) continue to build and improve customers' positive impressions at every arrival.

Keywords
(separated by '-')

service convenience - customer satisfaction - repurchase intention - word of mouth - Esthetic Rosereve Jakarta



The Effect of Service Convenience on Customer Satisfaction, Repurchase Intention, and Word of Mouth at Esthetic Rosereve

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Abstract. This study aims to determine the effect of service convenience on customer satisfaction, repurchase intention and word of mouth at Esthetic Rosereve Jakarta. The population in this study are Esthetic Rosereve Jakarta customers who have been customers since 2015 and the population is not limited. In this study, because the population is not limited, the sampling in the study was carried out using the formula Hair et al. [27] with the assumption of $n \times 5$ to 10 observed variables (indicators). So in this study the number of samples is the number of indicators $\times 5 = 19 \times 5 = 95$ respondents. The data collection method used in this research is to use a questionnaire from customers of Esthetic Rosereve Jakarta. Data analysis method using Partial Least Square. The findings in this study prove that: (1) service convenience has a positive and significant effect on customer satisfaction, (2) Service convenience has a positive and significant effect on repurchase intention; and (3) service convenience has a positive and significant effect on word of mouth at Esthetic Rosereve Jakarta. Suggestions for Esthetic Rosereve: (1) improve services, especially in the payment process, namely non-cash payments, such as collaborating with OVO, Go-Pay or Shopee-Pay which are digital payment services and are currently popular and widely used by consumers. (2) Increase innovation in facial treatment menus, (3) carry out more attractive and diverse promotions, (4) continue to build and improve customers' positive impressions at every arrival.

Keywords: service convenience · customer satisfaction · repurchase intention · word of mouth · Esthetic Rosereve Jakarta

1 Introduction

The beauty business in Indonesia is currently very attractive and promised because it has a wider market potential, this can be seen from the rapid growth of the beauty business in the past few years. Based on the study conducted by Euromonitor, the business potential of the beauty and care industry in Indonesia in 2019 is estimated to reach US



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\$6 billion. That number is predicted will continue to increase in the next few years. In 2022, the potential is estimated to reach US \$8.4 billion (source: *Bisnis.com*). Chairman of Indonesian Franchise and Licensing Association, [1], said that in 2019 the beauty business was included in the list of the top 10 most sought after franchise businesses along with minimarket, pharmacie, workshop, kebab, course institution, laundry, contemporary culinary, coffee shop, and barbershop (source: *Bisnis.com*).

In the service business, service convenience is important, where services are rewarded through implementation (performances) and service convenience can facilitate that. Reference [2] stated that service convenience is one of the strategies of a company to fulfil consumer needs in terms of minimizing the time and effort of consumers to get benefits related to the products or services offered, so that in the end there is customer satisfaction and trust to repurchase the products or services that was offered, it means that the lower cost of time and effort perceived by consumers in the process of using services, the higher possibility of consumer loyal behavior and the possibility to repurchase the products or services that was offered. Service Convenience consists of five dimensions, namely Decision Convenience, Access Convenience, Transaction Convenience, Benefit Convenience, and Postbenefit Convenience [3, 4].

In the research of [5], stated that the five types of service convenience dominate consumer satisfaction with the services, which means that the better consumer's assessment on service convenience, the more satisfied consumers will be with these services. Customer satisfaction is very important for a business, especially a business that produces the products in the form of services, such as beauty clinic business, because customer satisfaction is one of the indicators that will be assessed in the clinic's service standards. Service convenience can have a good impact on companies, namely repurchase intention, as conveyed [6], which stated that repurchase intention is an effort to maintain long-term relationships with customers that must be considered because it becomes a tools to gain competitive advantage by the entrepreneurs.

Service convenience also has a promotional impact, namely Word of mouth (WOM), which is one of the most effective ways and is used in the business world to market its products with the aim of attracting new consumers and convincing them to buy the products that was offered. According to [7], word of mouth is a compliment, recommendation and customer comments about their experience of services and products that really influences customer decisions or their buying behavior, it means that word of mouth can build customer trust.

Esthetic Rosereve, which is one of the most popular facial treatments in Jakarta, very concerned the service toward every customer who comes, Esthetic Rosereve has a different concept from other beauty clinics, namely carrying a Japanese style concept starting with greeting customers with a Japanese bowing "ojigi", saying "irasshaimase" which is welcome and "arigatou gozaimasu" which is thank you when the customer finishes the treatments. Esthetic Rosereve has a significant increase in the number of customers in the last three years, in 2016–2018. Customers who come for treatments every month can reach 1000 customers and even more, and are dominated by loyal members. Researchers want to study and conduct more in-depth research on the factors that drive the increase in the number of customers.

The phenomenon in this research is the occurrence of significant increase in customers at Esthetic Rosereve, so that attracting researchers to examine and conduct more in-depth research on the factors that drive the increase in the number of customers. Researchers conducted initial observations at Esthetic Rosereve, especially on the services provided to each customer from the beginning to the end of the process. The standard of services provided at Esthetic Rosereve is the standard of Japanese service, starting from a welcome greeting in Japanese “irasshaimase” and a brief explanation of the facial menu. Further, customers will be directed to do skin checks, to get the information about skin conditions, treatments needed and homecare products that are suitable for their skin conditions. The duration of the facial is one hour to one hour and thirty minutes.

To monitor the level of customer satisfaction, Esthetic Rosereve periodically every three months makes a different questionnaire for customers who do the treatments, in order to know the wishes, criticisms and suggestions from customers and then used as an evaluation material for Rosereve’s progress. Previous researchers have also do similar research about service convenience and customer satisfaction, such as research [8–11], but there are differences in the results (research gap) shown by previous research. The research of [12], concluded that the service convenience attribute has a positive and significant effect on customer satisfaction, while the research of [13], concluded that there are service convenience attributes, namely decision convenience and access convenience, which didn’t have significant effect on customer satisfaction. Research by [14], stated that the dimensions of service convenience and service quality affect repurchase intention of customers.

Based on this review, the researcher wants to do a different study from previous researchers, where the researcher will use word of mouth as one of the variables that influence the entrepreneurs to do service convenience, and this research was conducted at Esthetic Rosereve (beauty services).

Based on the background above, several problems can be formulated as follows: (1) Does Service Convenience has a significant positive effect on Customer Satisfaction at Esthetic Rosereve Jakarta; (2) Does Service Convenience has a significant positive effect on Repurchase Intention at Esthetic Rosereve Jakarta; (3) Does Service Convenience has a significant positive effect on Word of Mouth promotion at Esthetic Rosereve Jakarta.

Whereas, the objectives of this study are: (1) to find out and analyze the effect of Service Convenience on Customer Satisfaction at Esthetic Rosereve Jakarta; (2) To find out and analyze the effect of Service Convenience on Repurchase Intention at Esthetic Rosereve Jakarta; (3) To find out and analyze the effect of Service Convenience on Word of Mouth at Esthetic Rosereve Jakarta.

2 Literature Review

2.1 Service Convenience

Businesses engaged in services will certainly more interact with their customers than non-service businesses. The services that was purchased by the customer will be directly perceived by the customer, so that the customer can directly assess the performance of the service obtained. Therefore, the companies of service provider must be able to

provide services that make their customers comfortable and exceed the expectations of customers. According to [15] service convenience is a consumer's perception of time and effort related to the purchase or use of a service. According to [16], service convenience can be interpreted as adding value to consumers through reducing the time and effort that consumers spend in a service. Meanwhile, [17] defines service convenience as an assessment made by consumers according to control over the management, utilization and conversion of time and effort in achieving their goals related to access and use of services. Reference [18], identify five dimensions to measure service convenience are decision convenience, access convenience, transaction convenience, benefit convenience and post-benefit convenience.

2.2 Customer Satisfaction

According to [19], satisfaction is a person's feeling of satisfaction or disappointment resulting from a comparison of product performance or results with expectation. If the performance is less than expectation, the customer will be disappointed and if it is in accordance with the expectation, the consumer will feel satisfied. According to [4], satisfaction comes from the Latin "Satis" which means quite good, adequate and "Facio" which means to do or make. In simple terms, satisfaction can be interpreted as an effort to fulfill something or make something adequate. Meanwhile, according to [20], suggests that satisfaction is the customer's response to the fulfillment of their needs. It means the assessment that a form of privilege of an item or service or the goods/services itself, provides a level of comfort associated with fulfillment needs below or exceeding customer expectations. Service convenience can cause customer satisfaction is a balance between expectations and customer experience of the product or service that is perceived during consumption and post consumption.

According to [21], the dimensions of customer satisfaction, the things that can affect customer satisfaction can be seen from the size or dimensions:

- (1) Stay loyal. Satisfied consumers will tend to be loyal. Consumers who are satisfied with the products that they consume will have a tendency to repurchase from the same manufacturer.
- (2) Buy the products offered. Consumers will arise the desire to buy other products offered by the same manufacturer, because of the desire and expectations to repeat good experiences and avoid bad experiences.
- (3) Recommend products. Satisfaction is a factor that encourages positive word of mouth communication. This is in the form of recommendations to other potential customers by saying good things about the product and the company that provides the service or product.
- (4) Willing to pay more. Consumers generally tend to use price as a benchmark for satisfaction, when the price is higher, consumers tend to think that quality will be high as well.
- (5) Giving feedback. Consumers always want more and more, even though satisfaction has been achieved, therefore many consumers will provide input or suggestions so that their wishes can be achieved.

2.3 Repurchase Intention

Reference [22] suggest that repurchase intention is the tendency of buying behavior from customers that is repeated over a certain period of time based on past experiences when they shop. According to [23], stated that repurchase intention is a person's planned decision to repurchase certain services, by considering the situation that occurs and the level of preference. According to [24], purchase intention arises after an alternative evaluation process and in the evaluation process, someone will make a series of choices about the product to be purchased on the basis of brand or interest. According to [25], there are four dimensions used to measure repurchase intention, namely:

- (1) Transactional Interest. Transactional interest is a person's tendency to buy products that have been consumed.
- (2) Exploratory Interests. Exploratory interest describes the behavior of someone who is always looking for information about the product that is interested in and looking for information to support the positive characteristics of the product.
- (3) Preferential Interests. Preferential interest is an interest that describes the behavior of someone who has a main preference for the product, meaning that consumers make the product they have consumed as the main choice and this preference can change if something happens to their preference product.
- (4) Referential Interest. Referential interest is a person's tendency to refer products that they have consumed to others.

2.4 Word of Mouth (WOM)

According to [24], word of mouth marketing is a marketing activity through person-to-person intermediaries either orally, in writing, or electronic communication tools related to the experience of purchasing services or experiences using products or services. Reference [26], stated that the word of mouth strategy is an attractive strategy because this strategy combines low financing and fast interpersonal communication, especially through technology, such as the internet and social media. Reference [27] defines Word of Mouth as an exchange of ideas, thoughts, and comments between two or more consumers, and neither of them is a marketer. It can be concluded that word of mouth is a form of recommendation distributed by customers based on the experience they have received either individually or in groups of a product or service. Word of mouth has great power as a promotional medium, recommendations from trusted friends and other consumers based on experience gained are more trusted than from commercial sources such as advertisements and sales people.

According to [14], word of mouth indicators are as follows: (a) The content of the message conveyed is persuasive; (b) The content of the message conveyed is honest (not fake); (c) The content of the message conveyed is reliable; (d) The content of the message conveyed can be trusted; (e) The recommender has good communication skills.

3 Methods

This study uses quantitative research methods, the measurement scale used is the ordinal scale where this scale is the basis for the Likert scale. In this study, the researcher used a purposive sampling technique where the researcher determined the sampling by determining the special characteristics of Esthetic Rosereve Jakarta customers. The population in this study were Esthetic Rosereve Jakarta customers who had been customers since 2015 and the population was unlimited. The data collection instrument used was a questionnaire. Whereas, the sample in this study were 95 respondents, and the sampling technique was using the [28] formula.

After the primary data has been collected, data processing is carried out using the PLS (Partial Least Square) program, which is a component analysis method or variance Based Structural Equation Modeling where the data processing is a Partial Least Square (Smart-PLS) program version 3.0., which is in this study statistical data analysis was measured using Smart PLS software starting from the measurement model (outer model), model structure (inner model) and hypothesis testing.

4 Results and Discussion

1. Characteristics of Respondents

Based on the results of research conducted on 95 respondents, namely Esthetic Rosereve Jakarta customers who have been customers since 2015, it can be seen that the general description of the characteristics of respondents is as follows: it is known that the majority of respondents are between 31 years – 40 years old, namely 40% and dominated by women (82%), the majority of respondents' occupations are employees (49.5%) and already be a members for between 1 year – 3 years (42%) with income ranging from 4 million – 5 million per month (31.6%).

2. Convergent Validity Test Results

Testing the Convergent Validity of the measurement model with reflexive indicators is assessed based on the correlation between the item scores and the calculated construct score. Individual indicators are considered valid if they have a correlation value above 0.70. However, in scale development research, a loading factor of 0.50–0.60 is still acceptable. The results of the modified convergent validity test can be conveyed that all indicators have met convergent validity because they have a loading factor value above 0.50.

3. Discriminant Validity Test Results

Discriminant validity testing, namely reflective indicators can be seen in the cross loading between the indicators and their constructs. An indicator is valid if it has the highest loading factor for the intended construct compared to the loading factor for other constructs. Thus, latent constructs predict indicators in their block better than indicators in other blocks.

Table 1. R² Value of Endogenous Variables

Endogenous Variables	R-square
Customer satisfaction	0.396
Repurchase intention	0.569
Word of mouth	0.744

Source: Output PLS

In the discriminant validity test, it can be seen that the correlation of the service convenience construct with the indicators (SC1 = 0.725, SC2 = 0.639, SC3 = 0.736, SC4 = 0.797, and SC5 = 0.734) is higher than the correlation of service convenience indicators with other constructs, then the correlation of customer satisfaction with the indicators (KP2 = 0.730, KP3 = 0.827, and KP5 = 0.845), this proves that the indicator is higher than the correlation of customer satisfaction indicators with other constructs, then the correlation of repurchase intention constructs with the indicators (RI1 = 0.913, RI2 = 0.923, RI3 = 0.820, and RI4 = 0.541), this means that the indicator is higher than the correlation of the repurchase intention indicator with other constructs. The correlation of the word of mouth construct with the indicators (WOM1 = 0.937, WOM2 = 0.941, and WOM3 = 0.721) is higher than the correlation of word of mouth indicators with other constructs.

The next test is the inner model testing, namely the development of a concept and theory-based model in order to analyze the relationship between exogenous and endogenous variables that have been described in a conceptual framework.

a. Test Results of R-Square Value

The structural model indicates that the model on the customer satisfaction variable, repurchase intention is said to be moderate because it has a value between 0.33 and 0.50, while word of mouth can be said to be strong because it has a value of more than 0.67. The effect model of the independent latent variable service convenience on customer satisfaction has R-square value of 0.396 which can be interpreted that the variability of the customer satisfaction construct which can be explained by the variability of service convenience is 39.6% while 60.4% is explained by other variables outside the study. The effect of the latent variable service convenience on repurchase intention has R-square value of 0.569 which can be interpreted that the repurchase intention variable that can be explained by the service convenience variable is 56.9% while 43.1% is explained by other variables outside the study (Table 1).

The model of the effect of the latent variable service convenience on word of mouth has an R-square value of 0.744 which can be interpreted that the variability of the word of mouth construct that can be explained by the variability of service convenience is 74.4% while 25.6% is explained by other variables outside the study.

b. Goodness of Fit Model Test Results

Testing the Goodness of Fit Structural Model on the inner model uses the predictive-relevance (Q^2) value. Q-square value greater than 0 (zero) indicates that the model has predictive relevance.

The predictive relevance value is obtained by the formula:

$$Q^2 = 1 - (1 - R_1)(1 - R_p)$$

$$Q^2 = 1 - (1 - 0.396)(1 - 0.569)(1 - 0.744)$$

$$Q^2 = 1 - (0.604)(0.431)(0.256)$$

$$Q^2 = 1 - (0.06664)$$

$$Q^2 = 0.9334$$

The results of these calculations show the predictive-relevance value of 0.9334, which is greater than 0 (zero). It means that 93.34% of the variation in the variables of customer satisfaction, repurchase intention, and word of mouth (the dependent variable) is explained by the independent variables used. Thus, the model is feasible to have relevant predictive value.

c. Hypothesis Testing Results (Estimated Path Coefficient)

The significance value of this hypothesis can be obtained by the bootstrapping procedure. Seeing the significance of the hypothesis by looking at the parameter coefficient values and the T-statistical significance value in the bootstrapping report algorithm. To find out whether it is significant or not, it can be seen from the T-table at alpha 0.05 (5%) = 1.96, then the T-table is compared with the T-count (T-statistics) (Fig. 1; Table 2).

4.1 Discussion of Research Results

1. The effect of service convenience on customer satisfaction

Based on the hypothesis testing in this study, the results of the T-statistic value is 8.096, the original sample value is 0.629, and the P Values is 0.000. The T-statistic value is greater than the T-table value 1.96, the original sample value shows a positive value, and the P-values is less than 0.05, these results indicate that service convenience has a positive and significant effect on customer satisfaction.

It means that if service convenience increases, it will increase customer satisfaction as explained by the indicators measuring customer satisfaction, namely customers who get facial services satisfying or exceeding customer expectation then continue to do facial treatments at Esthetic Rosereve and recommend the treatments that have been tried to

Table 2. Hypothesis Testing Results

	Original Sample	Standard Deviation	T Statistics	P Values	Description
Service convenience → Customer satisfaction	0.629	0.052	8.096	0.000	Positive - Significant
Service convenience → Repurchase intention	0.754	0.024	8.911	0.000	Positive - Significant
Service convenience → word of mouth	0.863	0.023	9.241	0.000	Positive - Significant

Source: Output PLS

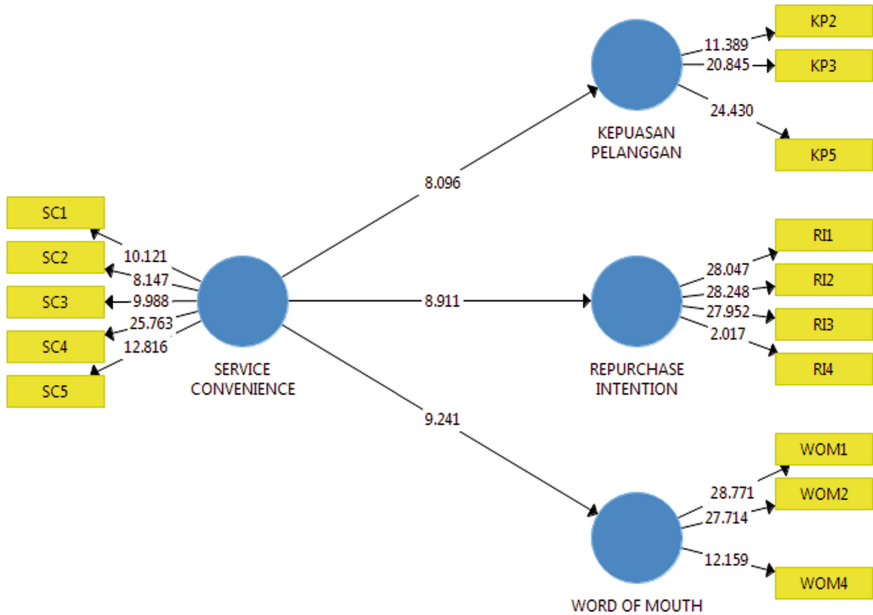


Fig. 1. Bootstrapping Test Results. Source: Output PLS

friends or relatives. Customers also find it easy to interact and get services at Esthetic Rosereve throughout the operational hours provided, so customers are happy with the services provided. This study proves that service convenience is an important factor in serving consumers to provide the best service so that customer satisfaction arises. The

results of this study are in line with the research of [12, 29–31], which found that service convenience had a significant positive effect on customer satisfaction.

2. The effect of service convenience on repurchase intention

Based on the hypothesis testing in this study, the results of the T-statistic value is 8,911, the original sample value is 0.754, and the P Values is 0.000. The T-statistic value is greater than the T-table value 1.96, the original sample value shows a positive value, and the P-values is less than 0.05, these results indicate that service convenience has a positive and significant effect on repurchase intention.

It means the customer perceived convenience increasing repurchase intention, as explained by the indicators measuring repurchase intention, namely the customer really likes the facial treatments provided at Esthetic Rosereve, so that they regularly come back for do the treatments and recommends facial treatments that are usually done to their friends and family.

Customers also feel the service convenience with a facial schedule that is always reminded by Esthetic Rosereve every two weeks, so that facial treatments are carried out regularly and on a schedule. This remainder program affects customer repurchase intention because customers are more motivated to come after being reminded about the facial schedule that must be done. The results of this study support the results of [32, 33] who found that service convenience had a significant positive effect on repurchase intention.

3. The effect of service convenience on word of mouth

Based on the hypothesis testing in this study, the results of the T-statistic value is 9.241, the original sample value is 0.863, and the P Values is 0.000. The T-statistic value is greater than the T-table value 1.96, the original sample value shows a positive value, and the P-values is less than 0.05, these results indicate that service convenience has a positive and significant effect on word of mouth.

It means that if the customer feels comfortable with the Esthetic Rosereve service, it will increase the number of references, especially references through word of mouth, as explained by the word of mouth measuring indicators, namely some customers have recommended Esthetic Rosereve to their friends and will recommend Esthetic Rosereve if there are friends who are looking for a facial. Customers also feel comfortable when doing facial treatments at Esthetic Rosereve because it doesn't hurt and doesn't make the skin red. This experience is so immersive that customers share positive things about Esthetic Rosereve and recommend their friends and family to try facial at Esthetic Rosereve. This study is in line with research conducted by [34, 35].

5 Conclusion

- (1) Service convenience has a significant positive effect on customer satisfaction of Esthetic Rosereve. It means that if the convenience of the service that provided is good, it will increase customer satisfaction.

- (2) Service convenience has a significant positive effect on repurchase intention of Esthetic Rosereve. It means that if the customer feels the convenience of the service when doing treatments, it will increase interest in visiting again.
- (3) Service convenience has a significant positive effect on word of mouth of Esthetic Rosereve. It means that if the customer feels comfortable with the Rosereve Esthetic service, the customer will recommend it to relatives, friends or people they know.

5.1 Suggestion

Based on the conclusions above, then there are some suggestions that can be considered for Esthetic Rosereve Jakarta and for further researchers:

- (a) Esthetic Rosereve should improve services, especially in the payment process, namely non-cash payments, such as collaborating with OVO, Go-Pay or Shopee-Pay which are digital payment services and are currently popular and widely used by consumers.
- (b) Esthetic Rosereve should increase innovation in facial treatments menu. Facial menu innovation can be done periodically, for example every three months or every six months, it can also replace the old facial menu that is less attractive to customers. Facial menus that are less desirable can also be updated by modifying tools, techniques or products so that it becomes a new menu that is more interesting.
- (c) Esthetic Rosereve should carry out more attractive and diverse promotions so that customers continue to come and do facials because they are given lucrative promotional offers. For example, if the customers do promotion for purchasing three facial treatments, they will get one free facial treatments. With the promotion of this package, it will make customers more bound and routine to do facials at Esthetic Rosereve.
- (d) Esthetic Rosereve must continue to build and enhance the positive impression of customers at every arrival. This can be done by highlighting Rosereve's unique side, which is real Japanese. For example: when new customers arrive, they are given warm towels to clean their hands and for waiting customers are given warm or cold ocha. This can give a deep impression to customers and they will tell these positive things to others.

Suggestions for further researchers are to develop variables and indicators that have not been used in this study, such as promotion, ambience, or service quality variables.

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Abstract The use of the MyPertamina application influences the lower middle class. The limited information and the exposure of the lower middle-class community have implications for the realization of the distribution of subsidized fuel oil. The writing of this article aims to determine the effect of the performance of gas station operators on the use of the MyPertamina application in PT. Satria Citra Kencana uses qualitative research

methods by collecting data using observation and interviews with gas station operators. The result of this study is that the presence of the MyPertamina Application brings a positive influence on gas station operators pt. Satria Citra Kencana is a power that arises from people who form characters and characters, where gas station operators immediately understand the use of the MyPertamina application and help the community in its use.

Keywords
(separated by '-')

Influence - Performance - MyPertamina App



The Effect of the Performance of Gas Station Operators on the Use of the MyPertamina Application in PT. Satria Citra Kencana

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Abstract. The use of the MyPertamina application influences the lower middle class. The limited information and the exposure of the lower middle-class community have implications for the realization of the distribution of subsidized fuel oil. The writing of this article aims to determine the effect of the performance of gas station operators on the use of the MyPertamina application in PT. Satria Citra Kencana uses qualitative research methods by collecting data using observation and interviews with gas station operators. The result of this study is that the presence of the MyPertamina Application brings a positive influence on gas station operators pt. Satria Citra Kencana is a power that arises from people who form characters and characters, where gas station operators immediately understand the use of the MyPertamina application and help the community in its use.

AQ1

AQ2

Keywords: Influence · Performance · MyPertamina App

1 Introduction

The Government of the Republic of Indonesia recently issued a policy through one of the SOEs (State-Owned Enterprises), namely PT. Pertamina Persero (Pertamina) is the use of the MyPertamina application. The MyPertamina application is an application that will be used by the public in filling fuel (Fuel Oil). Previously, people who wanted to refuel at gas stations were enough to queue before finally arriving at the refueling station, but nowadays there are many among the upper middle class who refuel their vehicles with subsidized fuel which is fuel subsidized which is intended for the lower middle class.

AQ3

Consumers who are entitled to receive solar subsidies have been fully regulated in Presidential Regulation No. 191 of 2014. So on that basis, the Central Government through Pertamina issued a regulation on the use of the MyPertamina application to ensure that subsidies from the two types of fuel were received by a truly decent society. In addition, the use of the MyPertamina application is to ensure the implementation of the duties of PT Pertamina (Persero), which was previously only responsible for the distribution and sale of fuel, now it is also asked to supervise the sale of subsidized fuel

is appropriate and the main reason is that most of the petalite fuel and solar subsidies are distributed to inappropriate people or not on point.

Quoted from the official website of PT Pertamina (Persero), Corporate Secretary of Pertamina Patra Niaga, Into Ginting said that the distribution of Peralite and Solar subsidies still has various challenges. One of the big challenges is the distribution that is not on target, where users should not be entitled to participate in consuming subsidized fuel. With the presence of improper users, it will certainly affect the quota that must be obeyed by Pertamina Patra Niaga as a business entity assigned by the government.

The use of the MyPertamina application is not as smooth as planned by the Government. The lower-middle-class people are the main target of using the MyPertamina application so the distribution of subsidized fuel oil on target does not receive a positive response because there are still many people in the lower middle class who still do not understand the use of smartphones, especially the use of the MyPertamina application. The limited information and the exposure of the lower middle-class community have implications for the realization of the distribution of subsidized fuel oil.

Peralite distribution has reached 57.56% or around 13.26 million kiloliters (KL) of the total quota this year of 23.05 million KL. Meanwhile, diesel has reached 51.24% of this year's total quota of 15.10 million KL with average monthly consumption above 10%.

Gas Stations (Public Refueling Stations) as distributors of Fuel Oil, one of which is subsidized Fuel Oil, are in direct contact with the people who use the MyPertamina application. The application is used to facilitate the service of gas stations in refueling. Moreover, the company will easily experience development and progress if it has quality human resources [1]. As for gas station employees, in this case, the operator of the refueling oil station who is dealing with the public will refuel using the MyPertamina application. Whether the performance of the gas station operator affects the use of the MyPertamina PT Satria Citra Kencana?

2 Methodology

The writing of this study uses qualitative research methods according to Marihot et al. [2] with data collection using observations and interviews with gas station operators who are directly related to the use of the MyPertamina application by people who want to refuel subsidized oil.

Before entering further into the discussion, you must know the relationship between the use of the MyPertamina application by the public to gas station operators, especially gas station operators in PT. Satria Citra Kencana (Fig. 1).

AQ4

The policy of controlling subsidized fuel consumption issued by the government is carried out through PT Pertamina using the MyPertamina application system [3]. MyPertamina is a digital financial service application from PT Pertamina that is integrated with the LinkAja application. The MyPertamina application is used in non-cash fuel payments at Pertamina gas stations. This application offers various benefits to consumers such as practicality and ease of making transactions, being able to find out access to the nearest gas station, there are vouchers, and attractive cashback, as well as getting points from every transaction that can be exchanged for various rewards available in

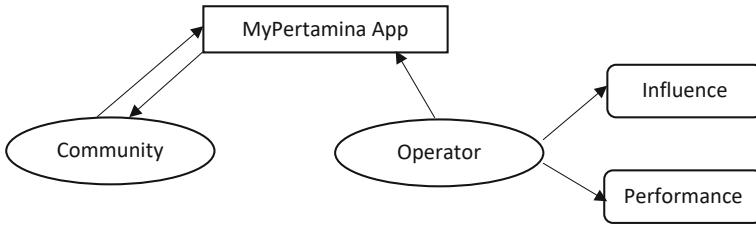


Fig. 1. Research Scheme MyPertamina

the Pertamina MyPertamina Application in Softina et al. [4]. The benefits that can be obtained by consumers if they use the MyPertamina application according to Oktaviana et al. [5], namely: Electronic payment (e-Payment), Earning Point, Redeem Point.

2.1 Performance

Performance is an overview of the level of achievement of the implementation of an activity/program/policy in realizing the goals, objectives, vision, and mission of the organization legally, not violating the law and by the law with morals and ethics, which are contained in the formulation of the strategic planning strategy of the organization concerned. Performance is an expectation in the form of the result of conformity between individual achievement efforts and organizational goals in this case the organizational goals of government officials (Budiyanto and Mochklas, 2020) [6]. According to Putri and Mursyidah [7] performance is the result of work that can be achieved by one or a group of people in an organization, according to their respective authorities and responsibilities, to achieve the goals of the organization concerned legally, not violating the law and by morals and ethics.

The work environment is everything that exists around the workman and that can affect him in carrying out the duties he carries out or that is his responsibility. Hartawati and Sahur [8] performance is a result obtained by a person in carrying out his duties in the Agency by the provisions and regulations carried out in the Agency. Performance is what affects how much they contribute to the organization. Performance improvement for both individuals and groups is the center of attention to improve organizational performance [9]. According to Rosminah [10] performance is the result of work that has been achieved by employees/employees by the duties and responsibilities that have been given and do not conflict with applicable law. According to Afandi in Triwandani [1] performance is the result of work that can be achieved by a person or group of people in a company by the authority and their respective responsibilities to legally achieve the goals of the organization, do not violate the law and do not conflict with morals and ethics. Setiawan and Nuridin [11] said the work environment is everything that exists around employees when working both physically and nonphysically that can affects employees while working. According to Cashmere the factors affecting performance consist of:

1. *Abilities and Expertise*

The ability or skill that a person has in doing a job. The more you have the ability and expertise, you will be able to complete the work according to what has been set.

2. *Knowledge*

The point is knowledge of work. A person who has good knowledge of work will give good work results, and vice versa.

The benchmarks in assessing performance according to Bernadin and Russel in Erri et al. [12] are the following performance benchmarks:

1. *Quality*

Each employee has their duties. As an employee, the first thing that is assessed in performance is how the quality of the work produced.

2. *Quantity*

One aspect of performance is how much work can be done.

3. *Punctuality/Timeliness*

This aspect looks at how short the time is spent to complete a particular job. The less time used, of course, the better the assessment you get.

4. *Cost-effectiveness*

The effectiveness of the use of funds, and how effective the expenses used in completing work tasks are. One of the aspects is how effectively the expenses are used in completing work tasks.

5. *Self-consideration*

The need for a supervisor One of the basis for determining aspects of performance is how independent it is to work. The less it is to get help from others, especially superiors, the more self-consideration will be.

3 Results and Discussion

As previously known, the MyPertamina application has brought influence or influence to the lower middle class as users of subsidized fuel oil, this influence is the lack of understanding of the public in the use of the application and its impact is the declining fuel sales and the number of complaints from the public.

A state in which there is a reciprocal relationship or causal relationship between what affects and what is affected. In this case, the influence is more inclined to something that can bring changes to a person to go in a more positive direction. If this influence is positive then, a person will change for the better, who has a vision and mission far in the future.

The MyPertamina application certainly brings a reciprocal relationship between the community, the MyPertamina application, and gas station operators (refueling officers). People will refuel oil by doing several commands on the MyPertamina application. The reciprocal relationship is that the gas station operator will check the data and if it is correct and appropriate, subsidized refueling will be carried out.

The operator of subsidized fuel oil gas stations at PT. Satria Citra Kencana has no negative influence on the MyPertamina application for subsidized refueling oil, as explained in the theory that influence is the power that exists and arises from something (people, things) that contribute to shaping a person's character, beliefs, or actions, the MyPertamina Application has a positive impact in the form of adaptability and the desire

to understand the procedures and mechanisms for using the MyPertamina application, the operator of PT gas stations. Satria Citra Kencana. The operator understands the use of the MyPertamina application in addition, for this understanding the gas station operator at PT. Satria Citra Kencana seems to be helping people to use the MyPertamina application which wants to refuel subsidized fuel oil.

The presence of the MyPertamina Application brings a positive influence on the gas station operator PT. Satria Citra Kencana, namely the power that arises from people who form character and character, where gas station operators who are in charge of subsidized fuel oil stations can immediately understand procedures and mechanisms for using the MyPertamina application and can help people who refuel subsidized fuel oil.

However, it is also necessary to see whether the MyPertamina application has an impact on the performance of gas station operators in PT. Satria Citra Kencana. According to Dariansyah et al. [13] performance or performance is an illustration of the level of achievement of the implementation of a program of activities or policies in realizing the goals, objectives of the vision, and mission that poured through the strategic planning of an organization. Achievement or performance is a record of the results obtained from certain work functions or activities over a certain period, to assess achievement or performance requires indicators that can provide an objective assessment of the performance. This is supported by research [14] that task suitability and technology have a positive and significant effect on expediency and perception.

Referring to this theory based on the results of the interview, it can be seen that the gas station operator PT. Satria Citra Kencana for subsidized fuel oil refueling stations functionally continues to run as it should and works by SOPs (Standard Operational Procedures). The presence of the MyPertamina application brings an adaptation impact for the operator to work in refueling. This ability can help people to refuel subsidized fuel and has implications for the distribution of subsidized fuel oil on target to those who are entitled to receive it.

4 Conclusion

From the results of this study, it can be concluded that the presence of the MyPertamina Application has a positive influence on the operator of PT. Satria Citra Kencana, namely the power that arises from people who form character and character, where gas station operators who are in charge of subsidized fuel oil stations can immediately understand procedures and mechanisms for using the MyPertamina application. This ability can help people to refuel subsidized fuel and has implications for the distribution of subsidized fuel oil on target to those who are entitled to receive it.

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Abstract	<p>Strategy and belief in one's abilities are factors that are certainly needed by business owners from small to large. Both can be steps in facing challenges and various environmental situations in the changing business world to achieve good business performance. This quantitative study aims to analyze marketing strategies, and self-efficacy on the performance of MSMEs. This study involved 30 respondents (SMEs) in Surakarta as research subjects. Collecting data using a survey method with interview techniques using a questionnaire. The collected data were analyzed using SPSS software by performing instrument tests, classical assumption tests, and hypothesis testing. The results of this study inform that (1) Marketing strategy affects the performance of MSMEs, and (2) Self-efficacy affects the performance of SMEs. Following up on the findings of this study, it is hoped that in the future MSMEs will be able to optimize financial management and optimize the importance of self-control (self-efficacy) in business implementation.</p>	
Keywords (separated by '-')	Financial Attitude - Self-Efficacy - The Performance of MSMEs - MSMEs	



Marketing Strategy and Self-efficacy on MSME Performance

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Abstract. Strategy and belief in one's abilities are factors that are certainly needed by business owners from small to large. Both can be steps in facing challenges and various environmental situations in the changing business world to achieve good business performance. This quantitative study aims to analyze marketing strategies, and self-efficacy on the performance of MSMEs. This study involved 30 respondents (SMEs) in Surakarta as research subjects. Collecting data using a survey method with interview techniques using a questionnaire. The collected data were analyzed using SPSS software by performing instrument tests, classical assumption tests, and hypothesis testing. The results of this study inform that (1) Marketing strategy affects the performance of MSMEs, and (2) Self-efficacy affects the performance of SMEs. Following up on the findings of this study, it is hoped that in the future MSMEs will be able to optimize financial management and optimize the importance of self-control (self-efficacy) in business implementation.

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Keywords: Financial Attitude · Self-Efficacy · The Performance of MSMEs · MSMEs

1 Introduction

Advances in technology today show changes in various aspects of life. In the past, the advertising and promotion process still used print media and broadcast media for communication in the commercial process, but now there is a new phenomenon, namely marketing through digital media that can promote all forms of digital advertising to reach market segments. The convenience of technology allows various forms of marketing to be carried out digitally so that entrepreneurs are expected to be able to optimize existing opportunities to achieve more aggressive and innovative business goals.

During rapid progress, unexpected things happened to the world community, including Indonesia. The events that occurred in 2020 will be an event that history will continue to remember. The Covid-19 pandemic that hit the world became a frightening event from 2020 to 2021. The consequences of this pandemic have caused many casualties. During the pandemic, the governments of each country including Indonesia urge the public to limit mobility outside the home to prevent the spread of the Covid-19 virus. With the appeal, of course, activities in the community are disrupted, and this can affect the social and economic sectors. Moreover, the MSME sector which has experienced severe

turmoil caused by Covid-19 has threatened its business resilience. The word adaptation is a must that must be implemented. Because the resilience of a business affects many aspects, one of which is family livelihood, employment, and the welfare of its employees. One of the ways that MSMEs need is to expand marketing in business activities, by conducting marketing communications to analyze marketing opportunities, choose the right targets and must be good at managing the business they run to be effective during this adaptation period [1]. In addition to marketing strategies, self-management or self-efficacy also needs to be maximized in dealing with these situations. Resilience or resilience in general can be interpreted as the ability that exists within an individual to recover from a stressful situation and be able to adapt and survive threatening conditions [2]. According to Bandura resilience is also strongly influenced by an individual's belief in his ability to perform a task, solve problems, and cope with stress in his life, known as self-efficacy [3]. Individuals who have a high level of self-efficacy are characterized by confidence in their abilities, see obstacles or problems as challenges, feel less negative emotions, and feel motivated and persistent when faced with obstacles. Meanwhile, individuals with low self-efficacy are characterized by feelings of doubt about their abilities, are prone to depression, avoid difficult situations, see tasks and obstacles as threatening, and are unable to respond to stressors received effectively [3].

The hope is that if business actors can adapt to conditions during a pandemic through the way they market their goods and maintain their self-efficacy in the future, which will help improve their financial performance to survive or improve even in difficult times. Based on previous research proposed by Soedewi Soedorowardi, in an economic magazine entitled *The Effect of Marketing on the Financial Performance of Small Scale Industries*, it is stated that simultaneously the ability to market products has a significant effect on the financial performance of small-scale industries. The focus of this research is the marketing strategy used in running a business to boost or maintain business performance during the Covid-19 period.

2 Literature Review Hypotheses Development

First, confirm that you have the correct template for your paper size. This template has been tailored for output on the A4 paper size.

In this template, the “Styles” menu should be used to format your text if needed. Highlight the text you want to designate with a certain style, and then select the appropriate name on the Style menu. The style will adjust your fonts and line spacing. Use italics for emphasis; do not underline. To insert images in Word, position the cursor at the insertion point and either use Insert | Picture | From File or copy the image to the Windows clipboard.

2.1 Theory Resource-Based View and Theory Market-Based View

One theory that connects strategy with company resources is the Resource Base View (RBV). RBV theory is used to approach formulating strategies to develop a sustainable competitive advantage [4]. The assumption of RBV theory is how companies can compete with other companies to get a competitive advantage in managing their resources

by the company's capabilities. The concept of capability in organizations is the foundation of the competitive advantage literature [5, 6]. RBV theory views the company as a collection of resources and capabilities owned by the company. Differences in resources and capabilities of the company with competing companies will provide a competitive advantage for the company.

While the Market Based View theory stems from the emergence of market attractiveness (market attractiveness) where the strategy is burdensome on the company's position in the industry and the environment in which the company operates [7]. According to Iswardhana and Chotimah, the MBV approach can be applied to expand the company's plans and objectives when viewed from political factors, customers, market conditions, technology, social and other factors to make a strategy. In the competitive industry itself, Porter explains that five forces influence industry competition, namely the entry of new entrants, the threat of substitute products, the bargaining power of buyers, the bargaining power of suppliers, and competition among existing competitors [8]. These five competitive forces together determine the intensity of competition and the profitability of the industry.

2.2 Social Cognitive Theory

Social cognitive theory is a theory that emphasizes the idea that most human learning occurs in a social environment. By observing other people, humans acquire knowledge, rules, skills, strategies, beliefs, and attitudes. Individuals also look at models or examples to study the usefulness and suitability of behaviors as a result of the modeled behavior, then they act according to beliefs about their abilities and the expected results of their actions [9]. Social learning theory or what is also known as social-cognitive theory initiated by Bandura is part of behaviorism's personality theory. Understanding behaviorism believes that behavior can be modified by studying conditions and experiences. This sentence indicates that this school also actually wants to emphasize that the behavior shown by a person/individual is nothing but influenced by something visible compared to feelings that are difficult for other individuals to understand. In addition, Albert Bandura also emphasizes unintentional events or events, where the point of attention is the reaction, not the event itself. The incident or event referred to by the author is an event experienced by someone [10].

2.3 MSME Performance

Performance is the extent to which the results of the achievement of certain tasks. Company performance is the level of achievement of results that is a manifestation of the company's goals (Simanjuntak, 2005). In measuring the performance of MSMEs, it is necessary to have the right measuring tools which are not only based on financially oriented measuring tools but also non-financial measuring tools that are adapted to the purpose of measurement [11].

2.4 Marketing Strategy

Marketing according to the Big Indonesian Dictionary (KBBI) is a process, method, or act to market merchandise, while the definition of a marketing strategy is a plan to

increase influence on the market, both in the short term and in the long term, based on market research, appraisal, product planning, sales promotion and planning, and distribution. Meanwhile, according to Kotler's book delivered by Hariyanti and Wirapraja the definition of marketing is the process by which companies engage customers, build good relationships with customers, and create value for customers, so that they can get good value/feedback from customers in their business. Order to increase profit and customer equity [12].

2.5 Self Efficacy

Bandura believes that self-efficacy is a very essential element of personality. Yusuf and Juntika define self-efficacy as self-confidence (self-confidence) in one's own ability to display behavior that will lead to the expected results [10]. Self-efficacy is often associated with outcome expectations, which are estimates that the behavior performed by oneself will achieve certain results. Self-efficacy can come from four things, namely: (a). Performance experience is an achievement that has been achieved in the past, (b). The vicarious experience is the experience gained through social modeling, (c). Social persuasion, and (d) Emotional state. The higher the self-efficacy, the higher the self-confidence about its ability to achieve success. In difficult situations, people with low self-efficacy will easily reduce their efforts or give up. On the other hand, people with high self-efficacy will try harder to overcome the challenges they face [13].

Theory of market based view and resource based view [14], MBV and RBV theories are complementary theories and have an important role in explaining the influence of strategy on company performance. The theory can be measured using a marketing strategy. Marketing activities can be in the form of activities or actions that have an impact on product demand, including in terms of price changes, modifying advertisements, making promotions, determining distribution options, and many others. Social cognitive theory [9]. Explain that social cognitive theory is based on the view of human agency that individuals are agents who proactively participate in their own environment. This theory can be measured using self-efficacy. Perceived self-efficacy is defined as a person's belief about their ability to produce a defined level of performance that exerts influence over life-affecting events. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave well. Then for the dependent variable in the form of financial performance which is a picture of the success of a company or business in the form of results that have been achieved as a result of various things that have been done. The results of performance measurement can be used as a management performance evaluation tool, whether a business has been running effectively or not.

A good strategy is a quality strategy that is compiled from various processes of analysis of internal and external factors. The focus in developing a marketing strategy lies in the quality of the resulting strategy to drive marketing performance. So that a quality strategy can be understood as a strategy that is structured and can be implemented, a strategy that has basic guidelines, and a strategy that has passed the process of analyzing weaknesses and strengths so that the strategy can be measured. It is the quality and quality strategy that will later increase the expected performance [11]. Research conducted by Soedorowardi shows the influence of financial attitudes on the performance of MSMEs [15]. The influence of marketing on the financial performance of small-scale industries

Stating that simultaneously the ability to market products has a significant effect on the financial performance of small-scale industries, the formulation of the hypothesis is as follows:

H₁: Marketing strategy affects the performance of SMEs.

Self-efficacy can create a positive circle in which people who have high self-confidence become more engaged in their duties to improve performance, and in turn, the performance achieved further increases their confidence [16]. Self-efficacy is closely related to entrepreneurial characteristics, where these characteristics are influenced by two factors, namely demographic and psychological factors [17]. These characteristics contain personality traits and competencies that affect business processes which will later affect MSME business performance [18]. Therefore, MSME actors as much as possible can apply the entrepreneurial spirit in controlling their business to increase competitiveness and maintain their business [18]. In a condition when dealing with a problem, the individual can emerge with a sense and belief that he is able/unable to overcome the condition. This belief in self-ability is what is associated with the term self-efficacy. The concept coined by Albert Bandura emphasizes the role of learning, social experience, and mutual determination in personality development.

The results of the study state that Self-Efficacy has a positive effect on the performance of MSMEs [1, 19]. Based on the discussion of theory and research results, the formulation of the hypothesis is as follows:

H₂: Self-Efficacy affects the performance of MSMEs.

3 Research Method

This research is included in the type of research, namely research that aims to test a theory or hypothesis to strengthen or even reject the theory or hypothesis of pre-existing research results. This research was conducted in the city of Surakarta on MSME entrepreneurs with a total of 30 MSME entrepreneurs as respondents. Roscoe's theory explains that the sample that can be used in a study is the number of member sample a minimum amount of variable researched (Sugiyono, 2010: 130). Operational Definition The variables in this study are: Marketing Strategy (X1) marketing strategy is a plan to increase influence on the market, both in the short and long term, which is based on market research, assessment, product planning, promotion, and sales planning, and distribution; Self-efficacy (X2) is a person's belief in his ability to master the situation and produce something that can be in the form of workability, firmness in completing tasks and willingness to accept challenges; Business Performance (Y) namely the work of a person in carrying out a business can be in the form of Profitability, Ability to generate profits at a certain percentage, Market Share, namely market reach owned, Business Processes and Growth and learning such as Employee welfare, Employee Experience. The population of this study is MSME entrepreneurs who are in Surakarta City, the sampling technique uses a purposive sampling technique with the criteria of MSMEs located in Surakarta City and still operating until 2022. Data analysis was used in testing samples using SPSS 26 software.

Table 1. Descriptive Statistical Test Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
X1	30	48	80	68.5667	8.28244
X2	30	15	25	20.3667	2.34128
Y	30	12	20	16.5000	1.87083

Source: IBM SPSS Statistics 26 Output, 2022

Table 2. Validity Test Results

Variable	Sig (2-tailed)	Critical Value	Note
X1	0.002	0.05	Valid
X2	0.000	0.05	Valid
Y	0.000	0.05	Valid

Source: IBM SPSS Statistics 26 Output, 2022

4 Results and Discussion

The population in this study were MSME business actors in the Surakarta area, amounting to 30 respondents. Submission of descriptive statistical test results aims to provide information about the characteristics of the proxies of the research variables.

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Table 1 shows the results of each variable, Table 1 shows the amount of data in this study 30 samples. The marketing strategy variable has a minimum value of 48 and a maximum value of 80. The average financial attitude variable is 68.5667 and the standard deviation value is 8.28244. The self-efficacy variable obtained a minimum value of 15 and a maximum value of 25. The average self-efficacy variable was 20.3667 and the standard deviation value was 2.34128. The MSME performance variable obtained a minimum value of 12 and a maximum value of 20. The average MSME performance variable was 16.5000 and the standard deviation value was 1.87083.

4.1 Validity Test Results

The validity test can be seen if the value of sig (2-tailed) < 0.05 , and vice versa if the value of sig (2-tailed) > 0.05 then the data is invalid.

Based on Table 2, the calculation of the validity test shows that the sig (2-tailed) value of each variable has a value < 0.05 . By the provisions that have been explained, the data is said to be valid if the value of sig (2-tailed) < 0.05 . The conclusion from Table 2 is that the variables of marketing strategy, self-efficacy, and performance of MSMEs are valid.

Table 3. Reliability Test Results

Variable	Koef Cronbach's Alpha	Critical Value	Note
X1	0.906	0.6	Reliable
X2	0.861	0.6	Reliable
Y	0.842	0.6	Reliable

Source: IBM SPSS Statistics 26 Output, 2022

Table 4. Normality Test Results

	K_S. Value	Asymp. Sig (2-tailed)	Information
Unstandardized Residual	0.05	0.200	Normally distributed data

Source: IBM SPSS Statistics 26 Output, 2022

4.2 Reliability Test

The reliability test is seen based on Cronbach's Alpha value, if the value is > 0.6 then the data is reliable. Vice versa, if the Cronbach Alpha value < 0.6 , then the data is not reliable.

Based on Table 3, by the provisions that have been explained, the data is said to be reliable if the Cronbach Alpha value is > 0.6 . The conclusion is based on Table 3 that the variables of marketing strategy, self-efficacy, and performance of MSMEs indicate that the data is reliable.

4.3 Classic Assumption Test Results

4.3.1 Normality Test

This study uses a statistical test, namely the Kolmogorov Smirnov test.

The data is normal if the value of Asymp sig (2-tailed) > 0.05 and Table 4 shows the value of Asymp sig (2-tailed) 0.200, which means that it is greater than 0.05, meaning that the data is normally distributed.

4.3.2 Multicollinearity Test

The method to diagnose the presence of multicollinearity is to perform the Variance Inflation Factor (VIF) test. If the VIF is greater than 10, then there is a multicollinearity problem between independent variables. The multicollinearity test aims to test whether the regression model correlates with independent variables.

Based on Table 5, it can be seen that there is no multicollinearity between independent variables because the results of the calculation of the Tolerance value of each independent variable do not show results less than 0.10 and the results of the calculation of the VIF value also show the results of each independent variable not being more than 10.

Table 5. Multicollinearity Test Results

Variable	Tolerance	VIF	Information
X1	0.864	1.158	There is no multicollinearity
X2	0.864	1.158	

Source: IBM SPSS Statistics 26 Output, 2022

Table 6. Heteroscedasticity Test Results

Variable	Asymp. Sig (2-tailed)	Information
X1	0.838	There is no heteroscedasticity
X2	0.730	

Source: IBM SPSS Statistics 26 Output, 2022

Table 7. Multiple Linear Regression Test Results

Dependent Variable: Y		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	B		
Model 1	(Constant)	3.866	2.793		1.384	0.178
	X1	0.092	0.035	0.407	2.613	0.014
	X2	0.311	0.125	0.389	2.496	0.019

Source: IBM SPSS Statistics 26 Output, 2022

4.3.3 Heteroscedasticity Test

Heteroscedasticity testing using Spearman’s Rho correlation coefficient test technique, which correlates the independent variable with the residual. The test uses a significant level of 0.05 with a 2-sided test. If the correlation between the independent variable and the residual has a significant result of more than 0.05, it means that there is no heteroscedasticity (Table 6).

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Based on the classical assumption test that has been carried out, none of the assumption tests are problematic and this shows that the existing variables are feasible and can continue testing to the multiple linear regression model.

5 Hypothesis Testing Results and Discussion

5.1 Multiple Linear Regression Test

The results of the multiple linear regression analysis above obtained the following equation:

$$Y = 3.866 + 0.092X1 + 0.311X2 e. \tag{1}$$

Table 8. Test Results for the Coefficient of Determination R2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.659a	0.434	0.392	1.45876

Note(s): a. Predictors: (Constant), X2, X1; b. Dependent Variable: Y

Source: Output IBM SPSS Statistics 26, 2022

Based on these equations, the translation of the results is as follows:

1. Based on the multiple linear regression equation in Table 7, shows a constant value of 3.866, meaning that if the independent variables of marketing strategy (X1) and self-efficacy (X2) are constant, the level of disclosure of MSME performance can be predicted at 3.866 units.
2. The financial attitude variable (X1) in the multiple linear regression model above the coefficient value of 0.407, means that if the marketing strategy variable increases, while the other variables are constant, the MSME performance will increase by 0.407.
3. The self-efficacy variable (X2) in the multiple linear regression model is above the coefficient value of 0.389, which means that if the self-efficacy variable increases, while the other variables are constant, the MSME performance will increase by 0.389.

5.2 Coefficient of Determination Test R2

The coefficient of determination (R2) measures how far the model's ability to explain the variation of the dependent variable. The value of Adjusted R Square (R2) is a coefficient of determination that explains how big the proportion of variation in the dependent can be explained by the independent variables together.

Based on Table 8 in the Adjusted R Square column, the coefficient of determination is 0.392 which means 39.2%, this shows the ability of the independent variable to explain the variance of the dependent variable. While 60.8% is explained by other variables outside of this study.

5.3 Model Feasibility Hypothesis Test (F Test)

This test is conducted to determine whether all the dependent variables simultaneously (simultaneously) can affect the dependent variable. The criteria for decision-making are if H0 is accepted (Ha is rejected) if sig F (0.05) and Ha is accepted (H0 is rejected) if sig F (0.05).

Based on Table 9, it can be seen that the significance value of $F = 0.000$ (smaller than $= 0.05$). This means that Ha is accepted, in other words, marketing strategy and self-efficacy simultaneously significantly influence the performance of MSMEs.

Table 9. The Model of Feasibility Test Results (Test F)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44,044	2	22.022	10,349	.000b
	Residual	57,456	27	2.128		
	Total	101,500	29			

Note(s): a. Predictors: (Constant), X2, X1; b. Dependent Variable: Y
 Source: IBM SPSS Statistics 26 Output, 2022

Table 10. The Results of Partial Hypothesis Testing (t-test)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	B		
1	(Constant)	3.866	2.793		1.384	0.178
	X1	0.092	0.035	0.407	2.613	0.014
	X2	0.311	0.125	0.389	2.496	0.019

Note(s): a. Predictors: (Constant), X2, X1; b. Dependent Variable: Y
 Source: IBM SPSS Statistics 26 Output, 2022

5.4 Partial Hypothesis Test (T Test)

The t-test was conducted to determine the significance of each independent variable on the dependent variable. The criteria for decision making is if H_0 is accepted if the significance value is $< \alpha = 0.05$ and H_0 is rejected if the significance value is $> \alpha = 0.05$.

Based on Table 10, it can be seen that the X1 variable has a significance value of $F = 0.008$, the results meet the sign requirements of < 0.05 , then H_1 is accepted. This means that financial attitudes affect the resilience of MSMEs. Furthermore, the X2 variable has a significance value of $F = 0.003$, the results meet the sign requirements of < 0.05 , then H_2 is accepted. That is, the locus of control affects the resilience of SMEs.

As seen in Table 10, the financial attitude has a calculated value of 2.613 with a significance of 0.014. The significance value is $0.014 < 0.05$, this means that the marketing strategy variable has a significant effect on the performance of MSMEs, so it is accepted. This means that the marketing strategy carried out by MSMEs will affect good financial performance as well. From the analysis carried out on MSME traders, it was found that they carried out their marketing strategy during this pandemic quite well. Utilizing existing technology and social media and carrying out business by choosing strategic places/locations, has proven to help to improve the performance of MSMEs. This research is in line with research conducted by H_1 Soedorowardi that the marketing strategy has a positive effect on the performance of SMEs [15].

Table 10 shows that self-efficacy has a t-count value of 2.496 with a significance level of 0.019. The significance value is $0.019 < 0.05$, this means that the self-efficacy variable

has an effect on financial performance, so it is accepted. This means that if an entrepreneur has good self-efficacy, it is possible to have good financial performance. Self-efficacy provides confidence and motivation that everyone can give good performance and make them more active and optimal in doing work. The results of this study are the same as those conducted that self-efficacy influences business performance [1, 19].

6 Conclusion

This study concludes that both simultaneously and partially marketing strategies and self-efficacy affect the performance of MSMEs. The conclusion is following the Theory Market-Based View and Theory Resource-Based View. This theory is following the MBV and RBV theories that competitive strategies and the use of internal resources can encourage the improvement of MSME performance. And these findings are in line with the Socia Cognitive theory where an action or behavior comes from the belief and ability to observe each individual, meaning that in improving the performance of SMEs, the ability to observe and self-confidence (self-efficacy) and view of the environment or things that happen are important factors in improving performance, an attempt.

This study has several limitations, first, namely ensuring that the validity and reliability values pass, but in the validity and reliability tests, researchers need to delete questions so that the data used can be valid and reliable. Second, the coefficient value which is still low at 39.2% indicates the lack of a strong marketing strategy and self-efficacy as an independent variable affecting the performance of MSMEs as the dependent variable.

Based on the results of the research described and the limitations that have been conveyed, the researcher suggests further research to use a larger and wider sample of MSME actors to be able to find out more broadly the condition of the population. Then, using other variables that can affect financial performance, such as financial knowledge, literacy, gender, and others. As well as expanding the scope of research so that sampling can be more diverse and varied.

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Author Queries

Chapter 9

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

profitability have a positive and statistically significant impact on the value of a company. However, our hypothesis which suggests that dividend policy moderates the link between capital structure and company value cannot be supported. In contrast, we document that dividend policy can influence the link between profitability and business value, with favorable and statistically significant outcome. This study implies that telecommunication industry does not consider dividend policy as material factor to boost the company value with any form of capital structure chosen by the firms.

Keywords
(separated by '-')

Firm Value - Capital Structure - Profitability - Dividend Policy



Capital Structure, Profitability, and Firm Value: Does Firm's Dividend Policy Matter? Evidence from Telecommunication Industry

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Abstract. Using dividend policy as a moderating variable, the purpose of this study is to examine the factors that determine the value of a firm, focusing on the capital structure and profitability of the telecommunications industry listed on the IDX from 2016 to 2020. The findings of this study show that capital structure and profitability have a positive and statistically significant impact on the value of a company. However, our hypothesis which suggests that dividend policy moderates the link between capital structure and company value cannot be supported. In contrast, we document that dividend policy can influence the link between profitability and business value, with favorable and statistically significant outcome. This study implies that telecommunication industry does not consider dividend policy as material factor to boost the company value with any form of capital structure chosen by the firms.

Keywords: Firm Value · Capital Structure · Profitability · Dividend Policy

1 Introduction

Company performance is a resource allocation control mechanism that indicates the company's financial health over a certain time period. As a result, the company's performance is a key source of concern for investors, shareholders, and the overall economy. Prior studies have established a link between firm performance and capital structure and firm's profitability [1–6]. The ideal capital structure can be used to create a balance between risk and return, allowing businesses to design strategies to maximize stock prices while minimizing capital costs.

However, there are still disparities in the findings of studies on the impact of capital structure on firm value. Reference [7] demonstrate that capital structure and profitability influence firm value. Similarly finding also documented by [8, 9]. Contrary, capital structure and profitability have no effect on firm value [10]. Reference [1] finds that capital structure has a negative effect on ROA.

Similarly, research findings on the impact of profitability as a proxy for financial performance on firm value remain contradictory. Profitability has a positive and significant effect on firm value following [11–13]. Profitability, on the other hand, has a negative effect on firm value, according to [14, 15].

Previous research on the effect of capital structure on firm value with dividend policy as a moderating variable has yielded inconsistent results. Reference [16] documents that dividend policy has a moderating role on the effect of capital structure and firm value in mining industry listed firms. It has a positive and significant results. These findings are consistent with those of [17–19]. On the other hand, [20] found that dividend policy fails to moderate the effect of capital structure on firm value.

In addition, [17] document that dividend policy plays a role as moderating variable between profitability and firm value, promoting the positive and significant results. This study implies that the association between dividend policy and firm value become stronger when firms have favorable dividend policy published for their stockholders. The findings of this study are also consistent with the findings of [4, 6, 21]. Contradictory, [5] shows that dividend policy cannot moderate the relationship between profitability and firm value.

To reconcile previously contradictory findings, this study aims to examine how capital structure and profitability may influence firm value. We also furthered investigate the moderating role of dividend policy on this relationship using telecommunication industry as our focus which listed in Indonesia capital market (IDX).

This study contributes to the literature on finance and firm value in several ways. First, we contribute to the literature on firm value by demonstrating that capital structure and profitability are important mechanisms for increasing a firm's value in the telecommunications industry. We discovered that as firms gain profitability and incur more debt on their capital structure, the value of the firm rises. Second, we contribute to the dividend policy literature by demonstrating that dividend policy is an important driver of firm value enhancement when a company achieves high profitability. Third, we discover that dividend policy cannot induce firms' capital structure to improve in order to increase firm value. As a result, we contribute to the dividend policy literature by arguing that the telecommunications industry views dividend policy as a non-superior condition when their capital structure is high in debt. Fourth, we contribute to capital market authority the need to establish regulation or law that can increase the importance of dividend policy while also encouraging firms to design capital structures that can increase the importance of dividend policy in order to create higher corporate value.

2 Literature Review

2.1 Signalling Theory

According to signaling theory, a company intentionally sends a signal to the market in the hope that the market will respond and influence the company's stock price. If the information signal provided by the company is poor, the stock price will fall, and vice versa. According to Signaling Theory, investors can increase the company's value if its profitability rises [22]. A high profitability value is regarded as a positive signal for investors, with the expectation that the higher the company's profitability, the higher

the profit generated. As a result, if the company's profitability is high, the dividends distributed to investors will increase, and investors' opinions will increase the company's value [23]. Furthermore, the signal theory asserts that capital structure can influence the value of a company. Companies with a lot of debt will be able to save money on taxes because the interest paid will increase the value of the company. Investors will see a positive signal for companies with high debt because they believe the company will grow in the future [7].

2.2 Firm Value

The value of a company describes firms' level of success, which is related to the share price from the perspective of an investor. The higher the stock price, the greater the value of the company [8]. The price of shares outstanding in the market, which is formed by demand and supply on the stock exchange, is used to determine a company's fair value. The market stock price reflects the various policies and decisions made by the management. Management's policies and decisions within the company include managing the company's assets, debts, and capital in order to generate profits. Which level of profitability is associated with firm value? The Price Book Value (PBV) ratio will be used to measure firm value in this study. We measure the PBV by deflating market price per share with book value per share.

2.3 Capital Structure

Long-term debt is compared to a company's own capital, which is represented by long-term funding [24]. A company's capital structure policy must consider the risk and rate of return (return), because as debt is increased, the risk and rate of return expected by the company increases [25]. The DER ratio was used in this study to examine the capital structure (Debt equity ratio). DER define as total liabilities divided by total equity.

2.4 Profitability

Profitability is a ratio that describes a company's ability to generate profit [4]. Profitability ratios can benefit the company because they can explain the contribution of the company's profits over time, which can affect the number of dividends. Because dividends are the acquisition of the company's net income. If the net profit obtained is higher, the company's ability to pay dividends to investors will also be higher, potentially increasing the company's value [21]. The Return on Equity metric will be used in this study to determine the level of company profitability (ROE). We measure ROE as net profit deflated by total equity.

2.5 Dividend Policy

Dividend policy is a policy that addresses issues concerning the use of profits that are the rights of shareholders, such as whether the profits will be retained for reinvestment or distributed as dividends [26]. The dividend policy must determine the appropriate

amount of profit allocation between dividend distribution and profit retained as retained earnings. The DPR (Dividend Payout Ratio) ratio is used in this study to assess dividend policy. We measure DPR as dividend per share deflated by earnings per share.

3 Hypothesis Development

3.1 Capital Structure and Firm Value

Following [25], capital structure has a positive and significant effect on the value of a company. The value of the company rises as the capital structure improves. An increase in capital structure indicates that the company's use of debt funds is greater than its use of equity funds. Furthermore, research (23) shows that capital structure has a partial positive effect, in other words. Higher debt will increase the company's value because investors believe that the use of debt indicates that the company has good future business prospects. Their findings were consistent with those of [7–9]. Based on the preceding explanation, the first hypothesis proposed in this study is:

H1: Capital structure has a positive impact on firm value.

3.2 Profitability and Firm Value

Reference [21] find that the effect of profitability on firm value is positive and significant. High profitability is a positive signal for shareholders who believe that the company can create favorable conditions and become their attraction to own the company's shares, which can cause a high demand for shares in the market and directly increase the company's value. Reference [5] finds that the effect of profitability on firm value is positive and significant. Profitability has an impact on a company's value because companies that generate large profits will have large internal funds to attract investors to buy shares of the company. The findings of this study are also consistent with the findings of [4, 6, 11–13]. Based on the preceding statement, the second hypothesis proposed in this study is:

H2: Profitability has a positive impact on firm value.

3.3 Relationship Between Capital Structure and Firm Value with Dividend Policy as a Moderating Variable

Reference [18] evidenced that dividend policy moderates the effect of capital structure on firm value, with significant positive results. Profits can be generated by companies with a high DER ratio value. Profitability allows the company to pay out large dividends to shareholders. This will pique the interest of investors, potentially increasing stock prices and company value. This line of reasoning is in line with [16, 17, 19]. Based on the explanation provided above, the third hypothesis proposed in this study is:

H3: Dividend policy moderate the relationship between capital structure and firm value.

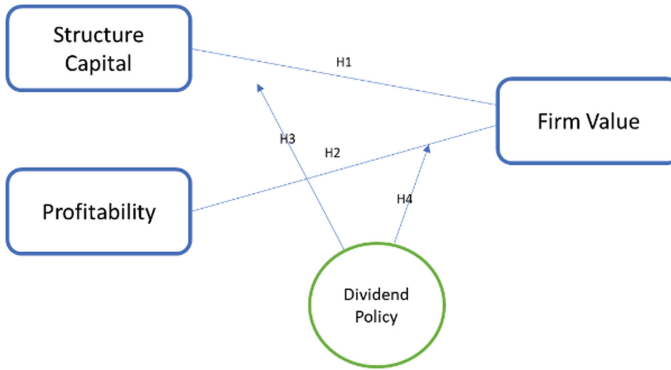


Fig. 1. Research Model

3.4 Relationship Between Profitability and Firm Value with Dividend Policy as a Moderating Variable

Reference [17] imply that dividend policy moderates the relationship between capital structure and firm value. A company with high profits will be able to pay out high dividends to shareholders. The ability of a company to pay dividends is closely related to its ability to earn profits. Reference [21] found that a reasonable dividend payment is a good signal for the company and can describe good prospects for increasing its value. References [4, 6] discovered the same results (Fig. 1). Based on the preceding explanation, the fourth hypothesis proposed in this study is:

H4: Dividend policy can moderate the relationship between profitability and firm value.

4 Research Design

4.1 Sample and Data Source

We use 7 firms in telecommunications industry listed on the Indonesia Stock Exchange between 2016 and 2020. The final sample in this study consisted of 5 samples chosen based on predetermined criteria based on the needs analysis. TLKM, ISAT, FREN, EXCL, and BTEL are among the companies studied in this study. Thus, we gather 100 firm-years observation for our complete analysis.

4.2 Model of Analysis

The moderator regression test equation relating capital structure and firm value.

$$PBV_{it} = \alpha + \beta_1 DER_{it} + \beta_2 ROE_{it} \varepsilon$$

$$PBV_{it} = \alpha + \beta_1 DER_{it} + \beta_2 DPR_{it} + \beta_3 DER * DPR_{it}$$

$$PBVV_{it} = \alpha + \beta_1 ROE_{it} + \beta_2 DPR_{it} + \beta_3 ROE * DPR_{it} + \varepsilon$$

Table 1. Coefficient of determination Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.894 ^a	0.799	0.781	1.14911

5 Result

5.1 Descriptive Statistics

Unreported table shows that the minimum value of each ratio used for PBV is -5.76 , DER is -5.33 , ROE is -0.33 , and DPR is -10.53 , while the maximum value of each ratio used for PBV is 3.92 , DER is 3.82 , ROE is 0.29 , and DPR is 0.91 . Each ratio's average value includes PBV has a mean of 0.9394 and a standard deviation of 2.45419 . The DER averages 0.1829 with a standard deviation of 2.37022 , the ROE averages -0.0046 with a standard deviation of 0.18375 , and the DPR averages -0.2030 with a standard deviation of 2.17635 . The range is the value obtained by subtracting the maximum and minimum values. The PBV range is 9.68 , the DER range is 9.15 , the ROE range is 0.62 , and the DPR range is 11.44 .

5.2 The Traditional Assumption t

We conduct several traditional assumption tests using normality test, multicollinearity test, heteroscedasticity test, and autocorrelation analysis to convince that our model free from bias and has high validity. Unreported table shows that our model free from the traditional assumption tests problem. Therefore, we continue to examine our proposed hypothesis.

5.3 Moderation Regression Analysis

5.3.1 Test for Coefficient of Determination

Based on the coefficient of determination test results in Table 1, the value of R-square (R^2) is 0.799 , indicating that 79.9% of the independent variables, which include capital structure and profitability, can describe or explain the value of the company in the Telecommunication Subsector Companies listed in BEI. At the same time, other variables not included in the study explained the remaining 20.1%

5.3.2 F-Test (Simultaneous)

Based on the F (simultaneous) test results, as shown in Table 2, the probability value is 0.000 , which is less than 0.05 ($0.000 < 0.05$). This demonstrates that all independent variables, including capital structure (X_1) and profitability (X_2), can have a significant effect on the dependent variable, firm value (Y), in Telecommunication Subsector companies listed on the IDX.

Table 2. F test

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	115.504	2	57.752	43.736	0.000 ^b
	Residual	29.050	22	1.320		
	Total	144.554	24			

Table 3. t-test (Partial)

Model		Unstandardized Coefficient		Standardized Coefficients	F	Sig
		B	Std. Error	Beta		
1	(Constant)	0.801	0.231		3.473	0.002
	DER (X1)	0.861	0.099	0.831	8.697	0.000
	ROE (X2)	4.140	1.277	0.310	3.242	0.004

Table 4. MRA Test

Y	Coef	Std. Err	T	P > [t]
DER*DPR	-0.036	0.273	-0.132	0.896
ROE*DPR	21.715	6.727	3.228	0.004

5.3.3 T-Test (Partial)

According to the T (Partial) test results, the capital structure (X1) has a t-probability value of $0.000 < 0.05$ and a coefficient of 0.861. This demonstrates that capital structure (X1) has a partially positive and significant effect on firm value (Y), and thus H1 is accepted. Profitability (X2) has a t-value of $0.004 < 0.05$ and a coefficient of 4.140. This demonstrates that H2 is acceptable if profitability (X2) has a partially positive and significant effect on firm value (Y).

5.3.4 MRA (Modified Regression Analysis) Test

Based on the results of the moderation test, as shown in Table 4, the moderating role of dividend policy on the association between capital structure and firm value result in negative but not significant statistically, as presented in line 2. It implies that this study cannot evidenced the moderating role between capital structure and firm value. Accordingly, we cannot support hypothesis H3.

Regarding the hypothesis H4, the findings shows that coefficient of β_3 from Eq. (3) is positive (21.715) and significant at 1% level, suggesting that the dividend policy play

a role as a moderating variable on the relationship between profitability and firm value. Therefore, we can conclude that current study supports the H4 hypothesis.

In addition, we find additional important findings. We find that dividend policy plays a role as quays moderating. We conclude this result by comparing the regression from Tables 3 and 4. As we find that profitability significant in all table, we imply that dividend policy may become an independent variable as well as.

6 Conclusions and Discussion

6.1 Capital Structure's Impact on Firm Value

Based on the preliminary test results, it is explained that the capital structure has a significant positive effect on the value of the Telecommunication Subsector companies listed on the IDX. This means that every increase in the value of the company's capital structure will result in an increase. The findings of this study are consistent with those of [7–9, 23, 25]. The capital structure provides an overview of the value of debt owned by a company, with the higher the debt level of a company, it can reduce the company's financing of tax payments due to interest, the benefits of using debt are more significant than the risks, companies with debt can expand the company's business, which investors will consider a positive signal because the company has good prospects in the future so that it can increase the value of the company.

6.2 Profitability's Impact on Firm Value

Profitability has a significant positive effect on firm value in the Telecommunication Subsector listed on the IDX, according to the results of partial tests conducted in this study. This demonstrates that an increase in the value of profitability will also result in an increase in the company's value. This study's findings are consistent with Signaling Theory, which holds that the company should signal to the market in the hope that the market will respond and influence the company's stock price. High profitability is a positive signal for investors because it indicates that the company believes it can provide profitable results for investors in the form of high dividends distributed by management. This will increase the market demand for shares, potentially increasing the company's value. This study's findings are consistent with those of [4–6, 11–13].

6.3 The Effect of Capital Structure on Firm Value Cannot Be Moderated by Dividend Policy

The results of this study's moderating variable testing show that dividend policy cannot moderate the effect of capital structure on firm value in the IDX-listed Telecommunication Subsector. This finding is consistent with the findings of [20], who discovered that dividend policy cannot mitigate the effect of capital structure on firm value. The number of dividends paid to shareholders has no effect on the company's value.

6.4 The Effect of Profitability on Firm Value Is Moderated by Dividend Policy

The results of this study's moderating variable testing show that dividend policy can moderate by strengthening the influence of profitability on firm value in the IDX-listed Telecommunication Subsector. Companies with large profits will be able to pay out large dividends to shareholders. This is a positive sign for investors because the balance of profitability and dividend policy can describe good company prospects and increase the company's value. The study's findings are consistent with those of [4, 6, 17, 21].

6.5 Conclusion

This study concludes that capital structure and profitability have an impact on the value creation of the firm on Telecommunication industry listed on the IDX. In detail, the findings shows that capital structure has a positive and significant effect on the value of the company, implying that an increase in the value of the capital structure will be followed by an increase in the value of the company. We also find as similar result when we use profitability as independent variable, implying that any increase in the company's profitability will be accompanied by an increase in the company's value.

The moderating role of dividend policy shows that dividend policy has moderating role on the association between profitability and firm value, but it cannot support the prediction that it has moderating role on the relationship between capital structure on firm value. In addition, we find additional essential findings. We find that the dividend policy plays a role as quays moderating. This mean that besides as an independent variable, dividend policy can moderate the profitability-firm value relationship.

According to the findings of the research, the company can increase its debt on its capital structure as long as the debt is at a safe level with a debt-to-capital ratio of 1:1. In terms of profitability, the company must be able to maintain the profitability value so that it does not decrease and must try to increase the profitability value in each period because an increase in the profitability value will encourage the company's value in the telecommunications sub-sector to increase.

Investors who want to invest must be more selective in determining the company that will be the destination for investing, including factors that can affect the value of the company, such as the capital structure and level of profitability of the company, so that investors can receive an appropriate return in the future. With what to anticipate.

Other variables that may influence the value of the telecommunications sub-sector companies listed on the IDX can be added for future research, so that other findings have different results related to the effect on company value and the scope of the research. To obtain more complete results, compare the telecommunications sub-sector companies in Indonesia with those in other countries.

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Abstract	This study examines how financial indicators including liquidity (X1), leverage (X2), profitability (X3), and growth (X4) affect the ability of enterprises in the transportation sector to predict financial distress (Y) and list their stocks on the Indonesia Stock Exchange (IDX). The sample for the study consisted of transportation-related companies that were listed on the Indonesia Stock Exchange between 2013 and	



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Keywords
(separated by '-')

Liquidity (CR) - Leverage (DER) - Profitability (ROA) - Growth (SG) - Financial Distress (Z-Score)



Using Financial Ratio for Financial Distress Detection: Evidence from Transportation Industry

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Abstract. This study examines how financial indicators including liquidity (X1), leverage (X2), profitability (X3), and growth (X4) affect the ability of enterprises in the transportation sector to predict financial distress (Y) and list their stocks on the Indonesia Stock Exchange (IDX). The sample for the study consisted of transportation-related companies that were listed on the Indonesia Stock Exchange between 2013 and 2018. The sample for the study consisted of 15 companies. The data analysis technique used in this study is multiple regression analysis. The results of the study show that (1) a measure of liquidity called the current ratio (CR) has a significant and favorable effect on anticipating financial distress situations, and (2) a measure of leverage called the debt-to-equity ratio (DER) is not relevant for doing the same. (3) The chance of financial difficulties is positively and strongly connected with the profitability ratio as indicated by Return on Assets (ROA). (4) Sales Growth (SG)-based growth ratios are not effective at forecasting the development of financial problems.

Keywords: Liquidity (CR) · Leverage (DER) · Profitability (ROA) · Growth (SG) · Financial Distress (Z-Score)

1 Introduction

In the era of globalization, which is full of uncertainty, global economic conditions, including the Indonesian economy, have become unstable. The financial state of a country certainly has an impact on the condition of the company. This economic instability certainly affects the company's performance because the changing economic needs will affect the company in carrying out its operational activities. In the era of globalization, which is full of uncertainty, global economic conditions, including the Indonesian economy, have become unstable. The financial state of a country certainly has an impact on the condition of the company. This economic instability certainly affects the company's performance because the changing economic needs will affect the company in carrying out its operational activities. Judging from all its roles for the economy and having become a basic need of the community, the company's business in the transportation sector is considered viable and can survive continuously. However, the facts on the ground

Table 1. Net Profit of Transportation Sector Companies from 2013–2018

Companies	Net Income					
	2013	2014	2015	2016	2017	2018
	In Millions of Rupiah					
PT. Indonesia Transport dan Infrastruktur Tbk	-29	-27	-162	-147	-91	-103
PT. Rig Tenders Indonesia Tbk	-23	-11	-61	-107	-176	-71
ICST Jasa Prima Tbk	-35	-37	-427	31	32	10

show that many transportation companies generate losses yearly. This indicates that the company's condition cannot be said to be good (Table 1).

The results of negative net income do not correspond to the annual growth in consumers of transportation service providers. The company's profit should increase; as a result, many transportation companies experience losses instead. Continuous losses or deterioration in a company's financial performance are a sign that it won't be able to fulfil its responsibilities. If this is allowed to continue to decline in the financial performance of the company, it is undoubtedly very worrying to cause the company to experience financial distress, which leads to bankruptcy. According to Ali (2009), financial distress is a company's financial condition at the decline stage before liquidity and bankruptcy. Financial distress occurs before the bankruptcy of a company. Bankruptcy is the worst financial distress condition (Putri and Merkusiwati, 2016). So, financial distress is a condition of declining financial performance that, if not overcome, will lead to bankruptcy.

Financial distress or a decline in the financial condition of a company can be assessed and measured through financial statements. We can find out the performance of a company from the published financial statements. The financial statements are used to calculate the company's health by looking at the current financial ratios. Then the financial ratios are used to analyze. This research will focus on testing several ratios, such as liquidity, leverage, profitability, and growth ratios.

The liquidity ratio is the ability of a company to meet its short-term obligations (Fahmi, 2014:121). The liquidity ratio was chosen to assess the company experiencing financial distress by looking at its ability to fulfil its obligations. Leverage is a ratio that measures the extent to which the company can meet its financial obligations in the short and long term or how much it is financed by debt. This leverage arises from using company funds from third parties, namely debt. Using this source of funds will create an obligation for the company to repay the loan with interest incurred on loan. If this situation is not balanced with good company income, likely, the company will easily experience financial distress. The profitability ratio is a ratio to assess the company's ability to seek profit and provides a measure of the effectiveness of a company's management—the better the profitability ratio, the better the company's ability to earn high profits. This means that the smaller the company is experiencing financial distress. The growth ratio is a ratio that measures how much the company's ability to maintain its

position in the industry and general economic development (Fahmi, 2014: 137). Higher sales growth will be followed by increased profits so that the financial condition becomes exceptionally stable and minimizes the possibility of the company experiencing financial distress.

2 Related Literature and Hypotheses Development

2.1 Agency Theory

Agency theory (Agency Theory) was put forward by Michael C. Jensen and William H. Meckling in 1976. Jensen and Meckling define an agency relationship as a cooperation contract in which one or more principals use agents to carry out company activities. The principal is a shareholder/owner/investor who provides facilities for the company's operational needs. At the same time, an agent is a manager or management who manages a company that aims to increase the prosperity of the owner or company profits. This separation system aims to create efficiency and effectiveness by employing professional agents to manage the company. The agent in charge of carrying out the company's activities will control the company, so the agent is required to always be transparent in carrying out the control of the company under the principal who acts as the owner of the company. One of the agent's responsibilities is to compile and report the company's financial statements at a particular time.

Through the information contained in the financial statements, the company's stakeholders can assess the condition of the company's performance. In the financial statements, we can find out how much the company's assets, debts and profits are. If the financial statements show a high-profit ratio, it will reflect that the company can generate high sales and the agent can manage assets well. But suppose the profit ratio shows a low or minus percentage. In that case, it will be judged that the company is experiencing a decline in financial condition (financial distress) or a loss due to decreased sales or income. However, this situation can also occur because of the agent's mistakes in managing the company. Even worse, the agent intentionally takes actions that are only selfish and ignore the interests of the principal.

2.2 Signaling Theory

Signaling theory originates from the writings of George Akerlof in his 1970 work "The Market for Lemons", which introduced the term asymmetric information. The idea discusses the existence of information inequality between internal and external parties of the company. Adverse selection is the condition in which one party (the seller) who carries out a business transaction has more information than the other party (the buyer). According to Ross (1977), Signaling Theory states that company executives will have better knowledge and tend to provide this information to investors. This theory is motivated by the assumption that the management or internal company has complete information about the company's condition compared to information held by outside parties. Based on these conditions, companies will try to use the information they have to give outsiders messages about their performance. The message will be responded to as a good or a wrong signal by outsiders so that the market can react to the sign in assessing the company's quality and help companies take policies to improve company performance.

2.3 Financial Distress

Financial distress is when the company experiences financial difficulties fulfilling all its obligations. This difficulty indicates that the company is in an insecure position from the threat of bankruptcy. Financial distress can be referred to as a condition before bankruptcy. According to Plat and Plat (2002), in the research of Almilialia (2006), financial distress is defined as the decline stage in economic conditions before bankruptcy or liquidation occurs. According to Mayang and Andayanu (2015), financial distress is a condition that occurs when a company is experiencing financial difficulties. Financial distress can be predicted by looking at the company's ability to fulfil obligations that have matured, whether the company has a willingness or unwillingness for these obligations. According to Whiteker (1999) and Verani, Elyzabet, Derry (2017) concludes that a company can be said to be in financial distress or financial difficulty if the company has had a negative net profit for several years. There is no common understanding of financial distress, as well as in previous research.

2.4 Current Ratio (CR)

This ratio demonstrates how current liabilities can be settled with cash using current assets. This ratio is calculated by contrasting current obligations with existing assets (Riyanto, 2010:28). The following is the current ratio formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Debt}} \quad (1)$$

The ability of the company to cover its current obligations is inversely correlated with the current ratio. Typically, this ratio is considered favorable if the value hits 2:1, or 200%, as the minimum ratio that the organization must maintain (Martono 2002: 5556). Because current liabilities will no longer be covered by the quantity of current assets if they decline, say, by more than 50%. Any current debt of Rp. 1 must be backed by existing Rp. 2 because working capital is nothing more than an excess of current assets due to the 2:1 or 200% ratio.

The ability of the corporation to pay off its short-term debt using liquid corporate assets is shown by the current ratio (CR). The current ratio is a measure of how likely a company is to experience financial distress. The higher the current ratio, the less likely the company is to do so because it can quickly convert its liquid assets into cash to pay off debts and fund its operational needs, preventing financial difficulties.

2.5 Debt to Equity Ratio (DER)

The ratio known as the debt-to-equity ratio is used to evaluate the relationship between total debt, including current debt, and total equity. This ratio aids in understanding the amount of money provided by creditors relative to business owners. In other words, this ratio is used to determine how much of a company's own capital is used to guarantee loans (Kasmir, 2012:157). The following is the DER formula:

$$DER = \frac{\text{Total Liability}}{\text{Equity}} \quad (2)$$

This ratio evaluates the company's ability to use cash from total capital relative to the amount of debt to pay all or a portion of its long-term and short-term debts. As a result, the corporation is better able to meet all of its debts if its DER ratio is lower. Liabilities increase in proportion to the quantity of debt utilized in the capital structure.

The amount of debt used to finance a company's capital is indicated by the debt to equity ratio (DER). Let's say a corporation raises more money through debt. In that instance, it will surely be problematic for the business because there will be problems with future payments because the debt is more than the company's assets. The likelihood of financial trouble will increase if this problem cannot be addressed properly.

2.6 Return on Assets (ROA)

Return on Assets (ROA) measures the company's overall ability to generate profits with the total amount of assets available. ROA is the ratio of net income to total assets to measure the return on the entire set owned. (Hery, 2016:193). The ROA formula is as follows:

$$ROA = \frac{\text{Net Profit}}{\text{Total Asset}} \quad (3)$$

The more money that can be converted from the company's total assets into profit, the higher the ROA ratio. The entire net profit is displayed as the rate of return from using firm assets for every 0.1 or 1% ROA created. The return on assets (ROA) measures how much profit (or net income) a company makes using all of its available assets. The corporation is also thought to be better at using assets because the greater the ROA ratio, the more significant degree of profit is thought to exist for the organization.

2.7 Sales Growth (SG)

Sales growth rate illustrates how sales fluctuate from year to year, either increasing or decreasing. Sales growth demonstrates the business's capacity to boost product sales, whether by boosting sales volume or frequency (Fahmi, 2012: 69). The formula for the sales growth ratio is as follows:

$$\text{Sales Growth} = (\text{Sales}_t - \text{Sales}_{t-1}) / (\text{Sales}_{t-1}) \quad (4)$$

The higher level of sales growth illustrates that the company is successful in its activities. It means that the profit generated is more significant, which impacts increasing the company's cash flow, which will affect its sound financial condition. Companies with good financial conditions are likely to experience minimal financial distress. With this, Sales Growth is considered capable of predicting financial distress conditions.

2.8 Altman Z-Score Method

Beaver pioneered the bankruptcy prediction method in 1966 and then developed by Edward I Altman in 1968, who researched financial distress. Research conducted by Altman used a sample of 66 companies, half of which were companies that went bankrupt.

This research produces a formula called ZScore, a ratio model that uses Multiple Discriminant Analysis (MDA), which requires more than one financial ratio related to corporate bankruptcy to form a comprehensive model (Rudianto, 2013:254). The following is a modified Altman model specifically for companies that have issued their shares to the public (Rudianto, 2013:254). The equation used is as follows:

$$Z'' = 0.71X_1 + 0.874X_2 + 3.107X_3 + 0.420X_4 + 0.99X_5 \quad (5)$$

where:

X_1 = Working Capital/Total Assets

X_2 = Retained Earning/Total Assets

X_3 = Earning Before Interest and Taxes/Total Assets

X_4 = Book Value of Equity/Total Liabilities

X_5 = Sales/Total Assets.

With the following category zones:

- If $Z > 2.9$, the company is in the “healthy” zone.
- If $1.23 < Z < 2.9$, the company is in the “gray” zone.
- If $Z < 1.23$, the company is in the “bankruptcy” zone.

3 Research Method

The companies in the transportation sector that were listed on the Indonesia Stock Exchange (IDX) between 2013 and 2018 make up the study’s population. A purposive sampling strategy, or sampling with specific goals, was employed to choose the sample for the study. 15 mining businesses that publish thorough and consistent annual reports and provide financial ratio data with the relevant variable measurements for the years 2013–2018 make up the sample of this study.

Descriptive statistics are used to gather, synthesize, display, and describe data to give useful information, claims Nisfianmoor (2009). With the exception of the dummy variable, descriptive statistics describe the magnitude of the average value, standard deviation, lowest value, and maximum for the variables (Mas’ud and Srengga, 2016).

After the model in this study satisfies the conditions, namely passing the classical assumption test, multiple linear regression testing can be performed. Normality tests, multicollinearity tests, autocorrelation tests, and heteroscedasticity tests are used to look for deviations from the classical assumptions (Ghozali, 2016). Multiple linear regression Analysis, the equation is:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad (6)$$

where: Y = Financial Distress; a = constant; β = coefficient; X_1 = liquidity (CR); X_2 = Leverage (DER); X_3 = Profitability (ROA); X_4 = Sales Growth. This test was conducted to test whether the independent variable separately was able to explain the dependent variable better—the test results on t-statistics with a standard significance of = 0.05.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		90
Normal Parameters ^{a,b}	Mean	0.000
	Std. Deviation	0.444
	Absolute	0.177
Most Extreme Differences	Positive	0.177
	Negative	-0.077
Test Statistic		0.117
Asymp. Sig. (2-tailed)		0.200 ^{c,d}

Note(s).

a. Test distribution is Normal; b. Calculated from data; c. Lilliefors Significance Correction; d. This is a lower bound of the true significance.

4 Empirical Results and Discussion

4.1 Normality Test

The purpose of the normality test, according to Ghazali (2018: 111), is to determine whether the independent and dependent variables in a regression model are regularly distributed or not. Using the Kolmogorov-Smirnov test in the SPSS application program with a probability level (sig) of 0.05, they are evaluating the data's normality.

The Kolmogorov-Smirnov value, assessed using Ln transformation data with N = 90 data, is 0.200, according to Table 2. Ghazali reported a significance value (asympt sig. 2 tailed) of 0.200. (2016), If a data set has a significance value (asympt sig. 2 tailed) greater than or equal to 0.05, it is said to have passed the Kolmogorov-Smirnov test. Because the significance value is $0.200 > 0.05$, it may be inferred from these results that the data is regularly distributed.

4.2 Multicollinearity Test

The multicollinearity test, according to Ghazali (2018: 105), determines if the regression model detects a correlation between the independent variables. A good regression model is one in which the independent variables are uncorrelated. The following table shows the results of the multicollinearity test:

The results of the Multicollinearity Test calculation can be seen in Table 3, which demonstrates that the Tolerance and VIF values in the test results do not occur in Multicollinearity symptoms because the calculation results of all independent variables have a VIF value lower than 10; specifically, the largest VIF value is 1.007, and the smallest is 1.001. The Tolerance Value is also more than 0, with the highest and lowest values being 0.999 and 0.993 respectively. Having a Tolerance value of 0.1 or the same as a VIF value of 10 deems a regression model to be multicollinearity-free (Ghozali, 2016). It is

Table 3. Multicollinearity Test

Model		Collinearity Statistics		
		B	Tolerance	VIF
1	(Constant)	-1.396		
	LN_CR	0.256	0.999	1.001
	LN_DER	-0.004	0.996	1.004
	LN_ROA	0.260	0.993	1.007
	LN_SG	0.023	0.995	1.005

Table 4. Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.501 ^a	0.251	0.214	0.29117	1.770

a. Predictors: (Constant), LN_SG, LN_CR, LN_DER, LN_ROA

b. Dependent Variable: LN_ZS

therefore possible to draw the conclusion that the regression model does not experience multicollinearity symptoms.

4.3 Autocorrelation Test

The autocorrelation test is used to determine whether there is a correlation between the residual error in period t and the residual error in the preceding period in the linear regression model. The Durbin-Watson (DW) test can be used to identify autocorrelation signs. The following Table 4 shows the results of the autocorrelation test:

Table 4's test results allow us to calculate the value of $DW = 1.770$. We must determine the values of dL and dU , which are visible in the distribution of the Durbin-Watson Table Values, in the autocorrelation test using the Durbin-Watson method in order to make the decision. The value of Dw is known for $dL (\alpha; k; n) = (0.05; 4; 90) = 1.5656$ and the table value for $dU (\alpha; k; n) = (0.05; 4; 90) = 1.7508$, with a Dw value of 1.966, both at a significance level of 5%. Thus, it can be seen that $dU < Dw < dL$, indicating that the regression model has neither positive nor negative autocorrelation, making it acceptable and practicable to employ.

4.4 Heteroskedasticity Test

The value of the Glejser correlation coefficient between each independent variable and the residual variable can be used to identify whether or not heteroskedasticity exists. If the probability value (sig) is greater than 0.05, heteroscedasticity is not present

Table 5. Heterokedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	-0.297	0.569		-0.522	0.603
	LN_CR	0.003	0.049	0.007	0.063	0.950
	LN_DER	0.049	0.042	0.125	1.167	0.247
	LN_ROA	-0.027	0.048	-0.061	-0.563	0.575
	LN_SG	0.047	0.046	0.110	1.025	0.308

a. Dependent Variable: Abs_RES

Table 6. Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	-1.396	0.823		-1.696	0.094
	LN_CR	0.256	0.071	0.341	3.621	0.000
	LN_DER	-0.004	0.061	-0.006	-0.660	0.948
	LN_ROA	0.260	0.069	0.359	3.793	0.000
	LN_SG	0.023	0.066	0.033	0.347	0.729

a. Dependent Variabel: LN_ZS

AQS (Ghozali, 2018, p. 139). The following Table 5 shows the outcomes of the Glesjer test's heteroscedasticity analysis:

The Glejser correlation coefficient between each independent variable and the residual variable provides information on the heteroskedasticity test, which is used to detect whether or not heteroskedasticity exists. There is no heteroscedasticity if the probability value (sig) is greater than 0.05. (Ghozali, 2018, p. 139). The following table shows the outcomes of the heteroscedasticity test using the Glesjer test:

4.5 Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine the effect of the independent variables (Liquidity, Leverage, Profitability, and Growth) on the dependent variable (Financial Distress). The following is a table of multiple linear regression analysis processed using the SPSS program application:

Based on the results of multiple linear regression analysis in Table 6, the following multiple regression equation models are obtained:

$$Financial\ Distress = -1.396 + 0.256CR - 0.004DER + 0.260ROA + 0.023SG \quad (7)$$

The regression equation above means; a = constant value of -1.396. The negative value explains that without the influence of the independent variables (liquidity, leverage, profitability, and sales growth), the probability of Z-Score will decrease by 1.396. B_1 = Liquidity (CR) has a positive regression coefficient of 0.256, meaning that liquidity directly correlates with financial distress (Z-Score); this means that an increase of 1 unit of liquidity will increase the Z-Score value by 0.256.

β_2 = Leverage (DER) has a regression coefficient in a negative direction of 0.004 which means that leverage has a relationship not in the same direction as financial distress (Z-Score); this means that an increase of 1 unit of leverage will reduce the ZScore value by 0.004.

β_3 = Profitability (ROA) has a regression coefficient with a positive direction of 0.260, which means that profitability has a unidirectional relationship with financial distress (Z-Score), which means that the increase of 1 unit of profitability will increase the Z-Score value by 0.260.

β_4 = Growth (Sales Growth) has a regression coefficient with a positive direction of 0.023, which means that growth has a unidirectional relationship with financial distress (Z-Score), which means that the increase of 1 unit of growth will increase the Z-Score value by 0.023.

Table 6 demonstrates that the LN CR and LN ROA variables have a probability value (p-value) of less than 1%, indicating that the liquidity CR of a company greatly reduces financial distress. The LN DER and LN SG variables, on the other hand, have probability values over the 10% significance level. These findings suggest that leverage and sales growth have no bearing on financial distress.

4.6 Discussion

a. The Effect of Liquidity on Financial Distress

The results of this study indicate that the liquidity variable, as measured by the Current Ratio (CR), influences financial distress conditions. With a significance value of 0.000, less than 0.05, and a regression coefficient of 0.256. In this study, liquidity, as measured by the Current Ratio (CR), has a positive and significant effect on the Z-Score, which means that if the liquidity ratio (CR) increases, it will increase the probability value of the Z-Score, the increasing value of the z-score indicates that the company is in a healthy financial condition and vice versa. So it means that the increasing value of liquidity (CR) will reduce the possibility of the company experiencing financial distress. If there is a decrease in the value of liquidity (CR), the company may experience financial distress.

Referring to the grand theory used in this study, Agency Theory, based on this explanation, it can be said that the principal's interests in generating profits by utilizing agents in managing the company are vital. One form of company management that is carried out is liability management. This form of management will assess the company's ability to fulfill its obligations. The company's inability to pay its obligations will impact

the assets owned by the company, and even this can indicate that the company is going bankrupt. Moreover, the worst possibility is that the company will find it challenging to carry out its operational activities. However, if the company can make payments and settle short-term debt, the company is considered liquid and will certainly reduce the potential for financial distress.

b. The Effect of Leverage on Financial Distress Conditions

The findings of this study show that financial distress is unaffected by the leverage variable as evaluated by the Debt to Equity Ratio (DER) (Z-Score). It is possible to claim that an increase in DER of 1 will result in a reduction in the probability value of Z-Score of 0.004 with a coefficient of 0.004. Leverage (DER) does not affect financial distress according to a significance level of 0.948, which is higher than 0.05. (Z-Score). As a result, it is concluded from this study that the liquidity ratio (DER) has no effect on the possibility of financial distress. The Agency Theory, which is used in this study as a source of information, does not take into account these findings when explaining the connection between the principal and the agent in which the agent serves as the management of the business. Where does the agent in this scenario decide whether to accept funds from a third party or not? A higher liability will develop in the future, making the business more susceptible to financial troubles, if the agent employs an excessive amount of third-party funds as finance. Additionally, this study contradicts earlier studies by Cinantya & Merkusiwati (2015), Setiawan & Amboningtyas (2018), Septiana & Dana (2019), and Wulandari's research (2020), all of which found a strong negative correlation between leverage and financial distress.

The findings of this study suggest that the significance of the Z-Score value cannot be predicted based on the size of the DER value held by the company. Even though the company has a lot of debt to fuel its operations, other factors, such the assets it owns and the earnings it makes, can offset this and keep it from going bankrupt. The absence of this effect can also be attributed to the fact that when a company's long-term debt matures but the firm is unable to pay the obligation, the company relies on outsiders to make judgments about how to pay off its debts on a significant scale in order to keep the company operating.

c. The Effect of Profitability on Financial Distress Conditions

According to the study's findings, financial distress situations are influenced by the profitability variable as evaluated by Return on Assets (ROA). With a significance level of 0.000, which is less than 0.05, and a regression coefficient of 0.260 in the positive direction, an increase in ROA profitability of 1 unit will increase the probability value of the Z-Score by 0.260, which, if the increase in the probability value of the Z-Score indicates that the company is in a healthy company condition. In other words, the likelihood that the company would avoid financial distress will improve as the value of profitability (ROA) rises. These findings are relevant to the Agency theory, which was applied in this study, and which holds that an organization's management decisions regarding how

much it may use its resources to make profits have a significant impact on that organization's overall health. In order to determine if a firm is in financial distress or not, one can look at how well and how poorly its assets are. The findings of this study are consistent with earlier studies by Lisnawati, Deviyanti, and Ginting (2017) and Wulandari (2020), which found that the profitability ratio significantly reduced the likelihood of financial distress. ROA is used to generate profits. This is what ROA describes.

This research implies that ROA is proportional to the Z-Score value; when ROA increases, it also increases the Z-Score value. A high ROA can reflect that the company can manage its assets to obtain large profits, which can affect the condition of the Z-Score. With the increasing profitability of the company, the smaller the company will avoid financial distress.

d. The Effect of Sales Growth on Financial Distress Conditions

The study's findings suggest that financial distress is unaffected by the sales growth variable, as determined by Sales Growth (SG). According to the Signaling Theory, which holds that a corporation can be more successful the larger its sales, this outcome is irrelevant, thus it is good news for the judgments that investors will make. Investors will be motivated to move forward. This great news will later increase the company's value and enhance its reputation. Additionally, this study contradicts studies by Almilia & Krisjadi (2003), Widarjo & Setiawan (2009), and Handayani, Darminto & Atika (2012) that found a substantial correlation between sales growth and financial distress.

According to this study, the significance of the Z-Score value cannot be determined by the volume of a company's sales growth. This circumstance explains why sales growth hasn't been significantly able to forecast instances of financial hardship and why it can't be used as a sign for investors to determine whether the firm is in excellent or poor shape. Increased sales growth (Sales Growth) does not guarantee an increase in revenue because a negative net profit will result if the increase in sales is not offset by an increase in operating expenses or if the increase in operating expenses is greater than the increase in sales. This puts the business in financial distress. In a similarly, a drop in sales does not cause financial distress for a company directly; rather, it simply affects earnings.

5 Conclusion

Financial distress is positively and significantly impacted by the liquidity ratio as indicated by the current ratio (CR) (Z-Score). The regression coefficient is 0.256 with a positive direction and a significance value of 0.000, which is smaller than 0.05. In this study, the current ratio (CR), which measures liquidity, has a positive and significant influence in predicting financial distress. This means that as the current ratio rises, the Z-Score for financial distress will rise as well, allowing the liquidity variable to be used to forecast financial distress conditions. The debt-to-equity ratio (DER), which measures the leverage ratio, shows that it has no appreciable negative impact on financial hardship. With a 0.004 regression coefficient and a downward trend. It can be established from this study that leverage has a role in financial hardship because a rise in DER of 1 will result in a 0.004 reduction in the probability value of financial distress (Z-Score), and

a significance level of 0.948, which is higher than 0.05. (DER). The leverage variable, however, has a negative but not statistically significant impact on the Z-Score, which makes it impossible to anticipate financial distress circumstances.

The profitability ratio, as determined by Return on Assets (ROA), has a considerable favorable impact on financial distress. An increase in ROA of 1 unit will result in a 0.260 in the positive direction regression coefficient, a significance value of 0.000, which is less than 0.05, and a 0.260 increase in the Z-probability Score's value of financial hardship. Thus, it can be said that profitability, as determined by ROA, has a favorable and significant impact on the value of financial distress (Z-Score), indicating that the profitability ratio might predict the appearance of financial distress.

The growth ratio does not significantly improve financial distress conditions as determined by Sales Growth (SG). It may be stated that the growth variable assessed by sales growth has not been able to anticipate financial distress circumstances because it has not significantly affected the Z-Score value. It is expected that future study would broaden, particularly by not being restricted to businesses in the transportation sector and by allowing for longer time periods to give various situations. Further study may try to incorporate or use additional financial ratios for the variables already present, such as operating cash flow, which is related to revenues and costs in calculating net income and can be used to assess and predict financial distress conditions. Operating cash flow is one such ratio that can reflect the financial health of the company. The effect of financial ratios in forecasting financial distress circumstances can also be investigated utilizing additional research techniques, such as the logistic regression analysis approach.

The management of the company can use the knowledge from this research to manage the business and reduce financial distress. According to the study's findings, financial distress conditions can be predicted and signaled by factors like liquidity and profitability. The income statement must be carefully monitored by the firm's management because it is this report that should give investors confidence to entrust their assets to the company. The authors advise investors to consider financial factors including liquidity, leverage, profitability, and growth, particularly liquidity and profitability characteristics, when deciding which investment to make. Investors are able to determine whether a company is worthwhile to invest in by learning about its financial health and ability to withstand the hazards it will face.

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Abstract Technological developments have shifted the traditional financial system to digitalization by bringing joy and convenience to some parties. P2P lending comes with that excitement to debtors who do not qualify for bank lending. For this reason, this study aims to analyze the relationship of P2P lending companies to interest rates and income of commercial banks in Indonesia. Using monthly data from January 2017 to April 2022, we analyze this association with the VAR-VECM model. Through various diagnostic model tests, the regression results show that in general P2P lending companies affect interest rates, interest income, and non-interest income of commercial banks. The existence of P2P lending companies currently has a positive effect on interest rates next year. At the same time, P2P lending companies boost bank interest and non-interest income. They significantly hold down the interest and non-interest income of banks. The results record a two-way causal relationship between P2P lending companies and interest rates. The causality of P2P lending companies to non-interest income is also found, but not vice versa. This paper implies several leaps to maintain and control P2P lending risks that could potentially affect the

macroeconomic and bank's financial conditions. A healthy business climate can be created when risk monitoring of P2P lending and banking can go hand in hand.

Keywords
(separated by '-')

P2P lending - interest rate - interest income - non-interest income



How Does P2P Lending Lead to BI-Rate and Commercial Bank Income? Empirical Evidence from Indonesia

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Abstract. Technological developments have shifted the traditional financial system to digitalization by bringing joy and convenience to some parties. P2P lending comes with that excitement to debtors who do not qualify for bank lending. For this reason, this study aims to analyze the relationship of P2P lending companies to interest rates and income of commercial banks in Indonesia. Using monthly data from January 2017 to April 2022, we analyze this association with the VAR-VECM model. Through various diagnostic model tests, the regression results show that in general P2P lending companies affect interest rates, interest income, and non-interest income of commercial banks. The existence of P2P lending companies currently has a positive effect on interest rates next year. At the same time, P2P lending companies boost bank interest and non-interest income. They significantly hold down the interest and non-interest income of banks. The results record a two-way causal relationship between P2P lending companies and interest rates. The causality of P2P lending companies to non-interest income is also found, but not vice versa. This paper implies several leaps to maintain and control P2P lending risks that could potentially affect the macroeconomic and bank's financial conditions. A healthy business climate can be created when risk monitoring of P2P lending and banking can go hand in hand.

Keywords: P2P lending · interest rate · interest income · non-interest income

1 Introduction

Digital transformation has changed the system of human life in various sectors, including the financial sector [1]. Recorded in the last decade, fintech has caught the eye of researchers, not only in the fields of computer science and information systems [2] but also in economics and business sectors [3–6]. The technological paradigm is changing the traditional financial system to a digitalized system and internet. This financial digitization became known as financial technology (fintech) [7].

With various technological facilities that cannot be obtained from traditional systems, digital financial innovations are more accepted by the general public. They offer customer-centered services and internet technology for accessibility [8]. The fintech phenomenon has also mushroomed in Indonesia after OJK (Otoritas Jasa Keuangan/Financial Services Authority) released the first licensed platform, namely Danamas. Over time, fintech lending in Indonesia grew rapidly with credit disbursement of IDR 16.40 trillion as of February 2022, an increase of 19% from the previous month [9]. In addition, Indonesia is a country with a high fintech industry development (after China) because it is used for credit penetration, especially for MSMEs and to increase financial inclusion [10]. This phenomenon seems to illustrate the enthusiasm of the Indonesian people for access to financing in fintech lending. On one side, they handle a wide range of financial services, including financing, payments, wealth management, capital markets, and insurance services [11]. On the opposite side, the existence of fintech is a threat to traditional banks' performance, especially in banks' credit income in China [3]. Banks as intermediaries play an important role in financial market shock [12], which in turn has an impact on monetary policies. One of them is using interest rates to maintain financial stability [13, 14]. For this reason, this research intends to analyze the relationship of P2P lending growth with interest rates and interest and non-interest income of commercial banks.

Theoretically, this actual phenomenon can be explained with the competition-fragility theory by Keeley [15]. This theory assumes that competition reduces market power, lowers bank performance, and encourages banks to take greater financial risks. Some recent literature also develops Keeley's [15] theory such as Kasman and Kasman [16]; Albaity et al. [17]; and Sarpong-Kumankoma et al. [18]. The existence of fintech in the loan market will create a new competitive climate and can threaten banks as credit service providers before them. Moreover, the addition of fast response facilities and few requirements allows banks to lag behind fintech lending. In the end, the bank's income decreases because they take a higher risk to catch up with their competitors.

Fintech lending or often called peer-to-peer (P2P) lending, is the practice of funding to unrelated individuals ('partners') without going through a commercial bank. P2P lending runs online with various lending platforms and uses a self-developed credit checking tool [19]. Until the end of March 2022, OJK recorded 102 registered and licensed P2P lending companies. However, from 2018 to October 2020, the Investment Alert Task Force (SWI) together with Kominfo (Ministry of Communication and Information Technology) blocked 2923 illegal fintech lending. Twenty times more than legal fintech lending platforms. According to Pohan et al. [20], this growth occurs because Indonesian P2P lending users appreciate the speed of requests that are approved as alternative financing. Although the practice of fintech lending in Indonesia has been regulated in the OJK regulation (POJK) 77/POJK.01/2016, unethical practices are like a mushroom that continues to grow. Increasingly sophisticated technology and public interest in instant loans accompanied by weak regulations have created a shadow banking practice that, if left unchecked, will increase financial risks that erode economic stability and the banking function itself [21–23]. In the recent context of Indonesia, the issue that emerged from the case of the loss of Bank Maybank customer funds amounting to Rp22

billion due to shadow banking practices became a special concern for Bank Indonesia to ensure the bank's function in monitoring money circulation.

Several recent studies have fresh discussed the role of fintech lending as alternative financing for MSMEs' development, e.g., Tambunan et al. [24]; Abbasi et al. [25]; Barkley & Schweitzer [26]; Temelkov & Samonikov [27]. However, their research did not mention the impact of fintech lending on the macroeconomy and commercial banks. In the context of Indonesia, many studies have discussed this fintech lending phenomenon. For example, Rosavina et al. [28] investigate the factors that encourage SMEs to use P2P lending platforms. They found that the loan process, interest rate, borrowing costs, loan amount, and loan flexibility were significant factors influencing SMEs to use P2P lending. Hidajat [22] highlighted the unethical practices of illegal P2P lending in Indonesia due to regulatory weaknesses. Tambunan et al. [24] and Rusadi & Benuf [29] tested the role of P2P lending on access to financing for SMEs. To the best of our knowledge, has no research that examines the causality relationship of fintech lending to interest rates and commercial banks' income.

2 Literature Review

2.1 Definition and Fintech in Indonesia

In the last decade, Fintech's success attracted the world's attention and they are growing rapidly. The effect of the existence of Fintech and its growth is becoming a global topic because of the technology they bring rather than the traditional financial system. Previously, e-commerce has succeeded in creating various startup companies such as Tokopedia, Gojek, and Alibaba. Then, Fintech emerged as a form of e-commerce efficiency. However, there is no standard definition of Fintech itself. The literature defines Fintech with various sides and scopes. For example, the World Bank defines Fintech as digitizing financial services more inclusively and efficiently.¹ More complex, Cheng & Qu [3] describes Fintech as the application of technology in banking, including artificial intelligence technology, blockchain, cloud, big data, and internet. Financial technology integrates messaging, transactions, order processing, and payment systems [30]. Kholia [31] describes Fintech as an advanced financial services innovation in technology, both in the capital market sector, blockchain, e-commerce and marketing, to banking and insurance. More specifically, Thakor [7] describes fintech as a catalyst for payment gateway innovations such as crypto, credit markets such as P2P lending, and insurance. Thus, Fintech is an efficient form of e-commerce that focuses on technology-based financial services for payments, money markets, and marketing.

In Indonesia, the first fintech platform to appear was fintech lending or P2P lending in 2016. Then microfinancing, market comparison, digital payments, and crowdfunding began to take place. In its development, P2P lending has shown extraordinary growth performance. In 2017, OJK officially announced Danamas as the first P2P lending platform to have an operating license. Data released by OJK as of January 3, 2022, recorded

¹ Quoted from the World Bank Group publication entitled *Fintech and the Future of Finance*, posted on 17 May 2022, accessed on 31 May 2022, <https://www.worldbank.org/en/publication/fintech-and-the-future-of-finance>.

103 registered and licensed fintech lenders. Until February 2022, the growth of P2P lending was rapid with credit disbursement of Rp16.40 trillion, which was an increase of 19% from the previous month (Fintech Lending Statistics for February, 2022).

2.2 Is P2P Lending a Threat?

The paradigm shift of the traditional system to digitalization by banking provides many advantages because the use of technology is intended by financial institutions for cost efficiency and achieving economies of scale with big data [7]. Especially fintech lending that offers easy and fast access to finance and money [8] to maintain customer focus [32], more specifically to those who are unbanked [33]. The reason why this gateway is so much in demand and generates a lot of fun is because it is more advanced in offering financial services than traditional banks [7]. Pohan et al. [20] make it clear that P2P lending services provide an alternative to fast credit services and users appreciate that speed. Thus, the big question arises whether the existence of P2P lending is only a new paradigm for financial services or does it have the potential to produce existential threats to banking. For this reason, empirical research needs to be carried out to answer this question. Even recently, Lee et al. [34] find that fintech lending grows more in countries with less efficient banking systems and has the potential to be a wake-up call. Banks tend to experience a decline in profitability because the growth of fintech lending creates stronger competition [35]. Bank asset quality and risk taking have deteriorated due to the development of fintech [36]. Even fintech has replaced loans from banks [37, 38].

Most of the financial literature in recent years has obtained heterogeneous results regarding the relationship between fintech and banking. The previous literature focused on exploring the opportunities and challenges of fintech for banking [39–41] and their impact on credit risk [3, 42], credit performance for SMEs [43], the negative influence of fintech companies on the bank performance [35, 44], and bank efficiency [34]. The important point that we are trying to investigate this time is that the rapid growth of P2P lending has generated excitement for borrowers, but may have affected banking income and market interest rates. Because it is known that fintech lending has succeeded in replacing traditional bank loans, while financing is closely related to the interest which is the main income of banks. Thus, it can be hypothesized as follows.

- H1: P2P lending growth causes BI-rates
- H2: P2P lending growth causes commercial banks' interest income
- H3: P2P lending growth causes commercial banks' non-interest income.

3 Method

This study uses monthly time series data from January 2017 to April 2022. The research period was determined from January 2017 because P2P lending was first registered with the OJK, namely Danamas on February 3, 2017. The data were collected from aggregate secondary sources. For example, the growth in P2P lending is obtained from the number of fintech lending providers registered with the OJK every month during the research period. The interest rate is the monthly interest rate appointed by Bank Indonesia. Interest

income and non-interest income of banks are collected from Indonesian banking statistics data from the OJK every month.

The research analysis was carried out employing the vector autoregressive (VAR) model which is popular in economic and social research for multivariate time series data analysis (e.g., 45–48). The VAR model allows determining the causal effect between fintech lending existence, interest rates, and income of commercial banks including the mixed relationship between them. Formally, this test was introduced by Granger [49], dan Engle & Granger [50]. For example, reverse causality, whether fintech lending leads to interest rates, or vice versa. Likewise with commercial bank income, whether fintech lending leads to interest/non-interest income, or vice versa.

Second, cointegration test to evaluate long-term relationships between sets of variables in the dynamic specification framework. Furthermore, the estimation of the vector error-correction model (VECM). Using the Johansen model, the trace statistics value is compared to the critical level of 5%. Optimum lag selection is estimated by the Akaike Information Criteria (AIC) calculation. Augmented Dickey-Fuller (ADF) unit root test is performed, which is stationary if the probability is under the critical value, of 1%, 5%, or 10%. We also perform diagnostic tests to estimate the best VAR-VECM model, including the autocorrelation test (Lagrange-multiplier test) and stability test (eigenvalue stability condition).

This study estimates 6 models based on Eq. 1, where Model 1 shows the relationship between fintech lending and interest rates. Model 2 is a modification of Model 1 with involves control variables in the estimate. Model 3 shows the relationship between fintech lending and commercial bank interest income. Model 4 is Model 3 modified. Model 5 shows the relationship between fintech lending and non-interest income for commercial banks. Finally, Model 6 is a modification of Model 5 with control variables.

$$\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \alpha_2 X_{t-1} + \sum_{i=n}^k \alpha_i \Delta Y_{t-n} + \sum_{j=n}^k \alpha_j \Delta X_{t-n} + \sum_{z=n}^k \alpha_z \Delta C_{t-n} + u_t \quad (1)$$

where, Y_t represents the vector dependent variables, Y_{t-1} is lagged-1 of the dependent variable; X_{t-1} is lagged-1 of exogenous variables, n represents the amount of lag optimum, C_t represents the control variables. α_1 and α_2 are long-term coefficients, while α_i and α_j are short-term coefficients. Car, fund, bqcredit, and fqcredit variables are control variables. Car is the level of core capital adequacy of commercial banks. Fund is the distribution of funds to third parties by commercial banks in trillions. Bqcredit is the credit quality of commercial banks which is represented by the number of current loans in trillions. Lastly, fqcredit is the quality of fintech lending credit which is represented by the current loan ratio.

4 Result

4.1 Descriptive Statistics

As previously explained, the data is a time series from January 2017 to April 2022 with a total of 64 observations. A complete data description is presented in Table 1. It is

Table 1. Descriptive Statistic of Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
P2P Lending	64	94.8125	53.79499	0	164
Interest Rate	64	4.542969	0.855137	3.5	6
Interest Income	64	402.0457	224.9912	61.63018	828.1974
Non-interest Income	64	195.0877	105.286	34.73684	460.0194

known that the total number of P2P lending companies registered with OJK during that period was 167. Interest rate fluctuations were seen throughout the study period, where Indonesian interest rates reached 6% at the end of 2018 until the first half of 2019 and dropped steadily to 3.5% in 2021. We noticed that interest rates were relatively high at a period when the number of P2P lending companies increased significantly. However, when the growth of P2P lending companies tends to be stable, interest rates are relatively low. In terms of banks, commercial banks' aggregate interest income reached 828 trillion in December 2019 and the lowest in January 2017 at 61 trillion. Meanwhile, the highest non-interest income in December 2021 was 460 trillion and the lowest in January 2018 was 34 trillion.

4.2 OLS Regression

We first conducted an OLS regression analysis to examine the effect of P2P lending on interest rates and bank income (see Table 2). In general, we find that interest rates and non-interest income are significant at 5% and 1%, respectively. However, these results are followed by bias problems in all three models, heterogeneity in Models 2 and 3, autocorrelation in Models 1 and 2, and an abnormal distribution in Model 1. To reduce endogeneity problems and obtain the best results, we continued the test using another approach, namely VAR model.

4.3 Unit Root Test

We check the unit root of all variables to identify whether the data is stationary or not. The term is that the ADF probability value must be higher than critical values, of 1%, 5%, or 10%. In VAR regression, stationary data is the main requisite, because VAR model specification involves lagged variables which may cause the data to be non-stationary. First of all, each variable checked the unit root at the level. If at that level the data is not stationary, then the unit root test can be continued at the first difference level. VAR estimates do not suggest stationary data in the second difference because this would be highly biased. Overall, the variables of this study are stationary at the level and first difference (see Table 3).

4.4 Optimum Lag

Because VAR involves a lagged variable in the model, the optimum lag must be known to get the best results. Optimum lag is indicated as con lowest error value. Based on the

Table 2. OLS regression results

	Model 1 (Interest Rate)			Model 2 (Interest Income)			Model 3 (Non-interest Income)		
	Coeff.	t-statistic	Prob.	Coeff.	t-statistic	Prob.	Coeff.	t-statistic	Prob.
P2P Lending	-0.004663	-2.894467	0.0053**	0.310740	0.636451	0.5269	0.836230	3.967322	0.0002*
C	5.088257	25.60061	0.0000	353.2994	5.865547	0.0000	86.84198	3.339635	0.0015
DW stat	0.039562			1.143633			1.836534		
VIF	1.000000			1.000000			1.000000		
Jarque-Bera	6.838124 (0.032743)**			3.962019 (0.137930)			0.872966 (0.646306)		
Prob. Chi-square	0.6603			0.0188**			0.0008**		
F-statistic	8.377938 (0.005316)**			0.405070 (0.526944)			15.73964(0.000199)*		
R-squared	0.124342			0.006819			0.210593		

* Significant at the 1% level

** Significant at the 5% level.

Table 3. The unit root of each research variable: ADF model

Variable	ADF - Level			ADF – First Difference		
	Z-t	Prob.	Decision	Z-t	Prob.	Decision
P2P Lending	-2.352	0.1557	Non-stationary	-6.380	0.0000	Stationary
Interest Rate	-0.172	0.9418	Non-stationary	-4.695	0.0001	Stationary
Interest Income	-4.222	0.0006	Stationary			
Non-interest Income	-3.937	0.0018	Stationary			

Table 4. Optimum lag for each estimate: AIC

Lag	Akaike Information Criteria (AIC)					
	Model 1 (Interest Rate)	Model 2 (Interest Rate + Control)	Model 3 (Interest Income)	Model 4 (Interest Income + Control)	Model 5 (Non-interest income)	Model 6 (Non-interest income + Control)
0	13.2349	20.2814	24.2468	24.9614	22.5699	23.3663
1	5.13863	7.60515	19.7747	15.3907	18.104	13.897
2	4.99012	7.47495	19.7907	15.0522	18.1054	13.5804*
3	4.90583	7.18628*	19.5538	14.8896	17.8741*	13.5923
4	4.82725*	7.37195	19.4997*	14.8306*	17.8903	13.585

results in Table 4, shows that the optimum lags for Models 1–6 are lags 4, 3, 4, 4, 3, and 2.

4.5 Diagnostic Tests

This test is to check that the model is not autocorrelated and stable under certain time conditions. Table 5 presents the results of the Lagrange-multiplier (LM) test to detect autocorrelation. Where the probability of each estimation is more than the critical value of 5% that indicates that there is no autocorrelation. The research model is also stable in time as shown in Fig. 1, where the modulus value is not more than 1.

4.6 VAR Regression

Since the model is reported to have passed the unit root test set and the diagnostic test, VAR regression was performed to examine the effect of P2P lending on interest rates and bank income. We estimate VAR in six main models. Model 1 is the specification of the estimated interest rate dependent (bi_rate), with the control variables for Model 2. Model 3 is for the interest income dependent (interest), with the control variables for

Table 5. Autocorrelation test: LM

Lag	Chi-square Probability					
	Model 1 (Interest Rate)	Model 2 (Interest Rate + Control)	Model 3 (Interest Income)	Model 4 (Interest Income + Control)	Model 5 (Non-interest income)	Model 6 (Non-interest income + Control)
1	0.75729	0.25303	0.42911	0.34854	0.24160	0.23798
2	0.06277	0.16281	0.06003	0.45557	0.10627	0.42068

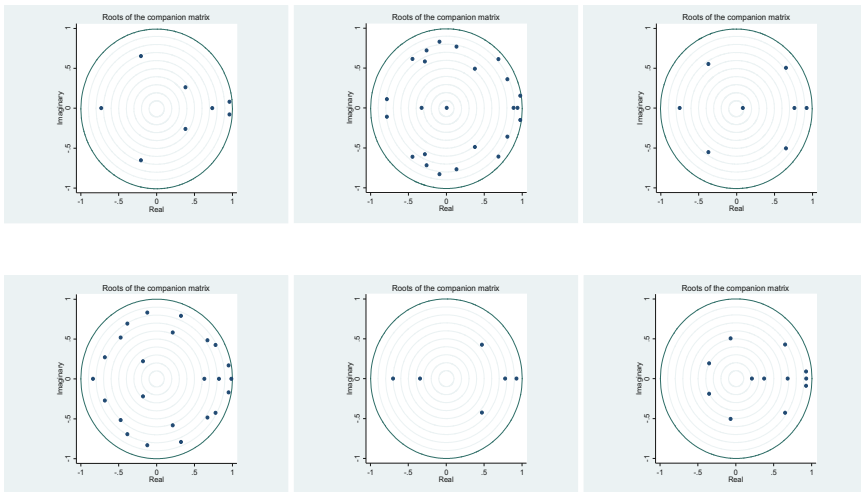


Fig. 1. Eigenvalue stability conditions for each estimation

Model 4, lastly, Model 5 is for the non-interest income dependent (non_interest) with the control variables for Model 6.

Tables 6, 7, and 8 present the results of the VAR regression for each research model. We found some evidence of these results. First, the p2p.L1 variable has a significant positive effect on interest rates (see Table 6), but its significance value decreases when the control variables are included in Model 2. These results indicate that the number of p2p lending companies in the current year has the potential to increase interest rates in the following year. However, there are differences in the effect of the p2p.L1 variable on the interest and non-interest income of commercial banks. In summary, the results report that the coefficient of the variable p2p.L1 is negative, and p2p.L2 variable is positive on commercial banks' income. p2p.L1 has a negative coefficient and is significant on commercial banks' non-interest income, but insignificant on interest income of commercial banks. After the control variables were included in Model 4, the significance of the variable p2p.L1 increased. Likewise, p2p.L2 variable becomes significant to interest

Table 6. Vector autoregressive model: Dependent of interest rate

	Model 1			Model 2		
	Coef.	z	P > z	Coef.	z	P > z
rate.L1	1.397182	11.92	0.000*	0.9706997	7.83	0.000*
rate.L2	-0.658317	-3.29	0.001*	-0.3078672	-1.75	0.079***
rate.L3	0.607439	2.99	0.003*	0.21827	1.94	0.053***
rate.L4	-0.419383	-3.52	0.000*			
p2p.L1	0.0100167	2.85	0.004*	0.0057503	1.81	0.070***
p2p.L2	-0.0071421	-1.61	0.107	-0.0029755	-0.75	0.455
p2p.L3	-0.0050178	-1.15	0.250	-0.0058272	-1.37	0.169
p2p.L4	0.0019304	0.57	0.568			
car.L1				0.0562771	1.10	0.273
car.L2				-0.0923572	-1.25	0.210
car.L3				0.0511309	0.92	0.358
fund.L1				0.6232303	1.64	0.102
fund.L2				-0.7440808	-1.76	0.078***
fund.L3				-0.1113598	-0.31	0.759
bqcredit.L1				0.0000108	0.00	0.999
bqcredit.L2				0.0151527	1.63	0.103
bqcredit.L3				-0.0059967	-0.75	0.454
fqcredit.L1				-0.8201865	-0.37	0.708
fqcredit.L2				-0.8625842	-0.32	0.748
fqcredit.L3				2.296093	1.22	0.222
C	0.3282807	2.70	0.007	0.6089159	0.33	0.742
R-square	0.9825			0.9898		
Chi-square	3373.222			4751.413		
P > Chi-square	0.0000			0.0000		

* significant at the 1% level

** significant at the 5% level

*** significant at the 10% level

and non-interest income when the control variables are included in Models 4 and 6 with positive coefficient values.

We also discover that lagged interest rate variables (rate.L1, rate.L2, and rate.L3) significantly affect interest rates in different ways. We have positive coefficients on rate.L1 and rate.L3, while negative coefficients on rate.L2. We also find a lag effect in lagged dependent of the interest income (interest.L1 and interest.L4), a significant positive coefficient for interest.L1 and negative for interest.L4. Finally, the effect of the lagged

Table 7. Vector autoregressive model: Dependent of commercial banks' interest income

	Model 3			Model 4		
	Coef.	z	P > z	Coef.	z	P > z
interest.L1	0.6012754	4.71	0.000*	0.6916649	3.83	0.000*
interest.L2	-0.1353188	-0.90	0.366	-0.1516359	-0.81	0.417
interest.L3	-0.0171449	-0.12	0.907	-0.3609452	-1.70	0.089***
interest.L4	-0.2427462	-1.93	0.053***	0.252034	1.50	0.134
p2p.L1	-5.191208	-1.07	0.282	-8.166259	-1.88	0.060***
p2p.L2	8.638903	1.33	0.184	10.76702	1.85	0.065***
p2p.L3	-6.745716	-1.01	0.314	-2.912407	-0.49	0.623
p2p.L4	3.321268	0.70	0.485	1.628118	0.36	0.718
car.L1				64.89768	0.74	0.461
car.L2				-142.1101	-1.43	0.154
car.L3				193.7012	1.99	0.046**
car.L4				-148.9509	-1.83	0.067***
fund.L1				-768.378	-1.17	0.243
fund.L2				501.9889	0.75	0.451
fund.L3				673.4183	1.01	0.314
fund.L4				-709.0432	-1.20	0.229
bqcredit.L1				-18.39865	-1.88	0.060***
bqcredit.L2				-0.1134623	-0.01	0.993
bqcredit.L3				3.818517	0.28	0.777
bqcredit.L4				7.450873	0.55	0.584
fqcredit.L1				-9161.245	-2.58	0.010**
fqcredit.L2				12362.03	3.16	0.002*
fqcredit.L3				-9977.788	-2.45	0.014**
fqcredit.L4				6143.302	2.33	0.020**
C	0.6524298	0.31	0.757	3545.778	1.33	0.185
R-square		0.4124			0.7147	
Chi-square		41.41146			120.2367	
P > Chi-square		0.0000			0.0000	

* significant at the 1% level

** significant at the 5% level

*** significant at the 10% level

non-interest income variable (non_interest.L1) is reported to be positive and significant. We also document the direct effect of control variables on interest rates and commercial

Table 8. Vector autoregressive model: Dependent of commercial banks’ non-interest income

	Model 5			Model 6		
	Coef.	z	P > z	Coef.	z	P > z
non_interest.L1	0.5859499	4.57	0.000*	0.6295834	4.28	0.000*
non_interest.L2	-0.0764619	-0.53	0.598	-0.2346721	-1.54	0.122
non_interest.L3	-0.1322227	-1.07	0.287			
p2p.L1	-3.649302	-2.06	0.039**	-3.697778	-2.03	0.043**
p2p.L2	3.332339	1.24	0.216	3.746589	2.07	0.038**
p2p.L3	0.6706704	0.37	0.709			
car.L1				31.10704	0.93	0.351
car.L2				-38.35141	-1.11	0.267
fund.L1				-210.6571	-0.83	0.409
fund.L2				222.7365	0.85	0.394
bqcredit.L1				-7.884662	-1.64	0.100
bqcredit.L2				6.962893	1.56	0.119
fqcredit.L1				-2410.293	-1.98	0.048**
fqcredit.L2				2268.616	1.91	0.056***
C				435.2812	0.48	0.632
R-square	0.4650			0.5874		
Chi-square	52.14031			71.19515		
P > Chi-square	0.0000			0.0000		

* significant at the 1% level
 ** significant at the 5% level
 *** significant at the 10% level

bank income. Overall, only funds lagged-2 are significant to interest rates with a negative coefficient while other controls are insignificant. For the control car lagged-3 is positive and car lagged-4 is negative concerning interest income. The variable bqcredit.L1 was also found to be negative and significant to interest income. Finally, fqcredit control was reported to have varying effects on commercial bank income. Fqcredit.L1 and fqcredit.L2 have a negative and positive impact on interest income and non-interest income for commercial banks, respectively, while fqcredit.L3 and fqcredit.L4 have a negative and positive impact on interest income only.

The advantage of VAR regression is that all variables are considered endogenous, because inverse causality may occur between two variables. Although this study focuses on the impact of fintech lending on interest rates and commercial bank income, we also document an inverse causality relationship. The results are presented in Table 10, in which the p2p variable is endogenous. Overall, we find that the significance value of p2p keeps dropping as it lags behind. This means that the number of fintech lending

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companies has shown an increase over time. Meanwhile, interest rates and income of commercial banks also affect the growth of fintech lending. It is documented hence the negative coefficient of rate.L2 variable and non_interest.L2, as well as the positive coefficient of rate.L3 and interest.L4. In addition, we found that the variables car.L3 and fqcredit.L1 significantly caused to the development of p2p.

4.7 Long-Run Effect and Cointegration

To reduce possible endogeneity issues and strengthen our findings, VECM regression was performed for short-term relationship analysis while examining whether the models were cointegrated or not. VECM also involves “_cel” coefficient which represents the speed of adjustment of the variable back to equilibrium due to changes in each certain cointegration rank. Cointegration rank is determined with Johansen test comparing trace statistics and its critical value. We report the cointegration rank of the six estimation models in Table 9. Sequentially, the cointegration rank for models 1–6 is 1, 1, 1, 3, 1, and 4. Thus the six models have a long-run cointegration relationship.

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Table 11 is the VECM regression result for the dependent of first difference interest rate (D_rate) and differential lag of fintech lending (p2p). The results are consistent with the main finding in the VAR regression that p2p lagged-1 has a positive causality to interest rates. Models 1 and 2 also have _cel1 coefficient is negative and significant. This means that the causality relationship between both p2p and interest rate has long-term cointegration with or without the control variables. Negative causality is also shown in p2p lagged-1 to bank interest income and there is long-term cointegration because the coefficient _cel1 is negative and significant (see Table 12). However, this causality is not significant when the role of the control variables is not going down in the model. Likewise, the causality of p2p lending and non-interest income was found to be negative and there was long-term cointegration (see Table 13). In the end, the overall VECM results are the same as the main results from the VAR regression. That there is a causal relationship between fintech lending companies and interest rates and interest income of commercial banks.

To examine causality more clearly, we performed the Granger causality test. Table 14 shows that there is a causal relationship between p2p to rate, rate to p2p, and p2p to non_interest. Based on these results, it is certain that there is a two-way causal relationship between fintech lending companies and interest rates. The findings show that fintech lending companies cause non-interest income for commercial banks.

5 Discussion

Our overall empirical results show that P2P lending companies affect interest rates and commercial bank income, both interest and non-interest income. We confirm that the effect varies over time. The results of the VAR and VECM regressions provide the same information to record the relationship. By involving the lagged variables, this finding uncovers some new evidence. First, the number of P2P lending companies in the prior year affects the current interest rate differently. Its existence tends to increase

Table 9. Determination of the cointegration rank of each estimate: Johansen's test

Maximum rank	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Trace statistic	5% critical value	Trace statistic	5% critical value	Trace statistic	5% critical value	Trace statistic	5% critical value	Trace statistic	5% critical value	Trace statistic	5% critical value
0	21.3235	15.41	85.7675	68.52	31.1864	15.41	158.6034	94.15	23.4030	15.41	142.0898	94.15
1	4.1922*	3.76	51.4154*	47.21	4.5277*	3.76	109.0276	68.52	4.4988*	3.76	95.3908	68.52
2			26.5089	29.68			69.6556	47.21			63.2268	47.21
3			8.8489	15.41			34.4988*	29.68			35.8583	29.68
4			0.0203	3.76			14.1246	15.41			17.2240*	15.41
5											0.2135	3.76

interest rates. This finding can be described with market competition theory in previous research, van Leuvensteijn et al. [51] explained that interest rates tend to be lower under stronger loan market competition. To be capable to exist under strong competition, funding companies may provide low-interest rates for customers. This sort of bank behavior in aggregate will affect the market interest rate. van Leuvensteijn et al. [51] also make clear in their findings that the adjustment of bank interest rates to market interest rates is faster in a more competitive loan market. Thus, competition among lending companies contributes to the transmission mechanism of monetary policy, including market interest rates. In addition, P2P lending as an alternative to loans for those who do not bank qualify [37, 38], creates a stronger competitive atmosphere. In the time series, changes in the influence of P2P lending on market interest rates have an adjustment speed of 5.43%.

Our second finding is that the existence of P2P lending companies affects the interest and non-interest income of banks. At the same time, P2P lending companies increased bank interest and non-interest income. However, in the following year, it significantly holds down the interest and non-interest income of banks. We again use the argument of van Leuvensteijn et al. [51] to stick up our findings. Banks will tend to decrease their lending rates or increase their annual interest rates when they are in strong business competition. Sequel, the bank's interest income is lower due to a higher enrollment of financial risk. Furthermore, we report that in 2 lagged years, P2P lending was found to have a positive impact on the interest and non-interest income of commercial banks. At the beginning of its emergence, online loan companies were usually affiliated with commercial banks to mobilize financial transactions. Where the bank charges handling costs for installment payments to creditors. Its fees charged can increase the bank's non-interest income. Along with their development, P2P lending created financial innovations a digital wallet with awesome marketing strategies, such as claiming discount vouchers and coins. Nevertheless, our findings strongly confirm that the effect of P2P lending leads to a tendency to decrease commercial bank income in the long term. Finally, these findings support the competition-fragility hypothesis that the existence of P2P lending in the Indonesian credit market creates a new competitive climate that can threaten commercial bank incomes.

6 Conclusion

Technological transformation has shifted the traditional financial system to a digitalized financial system. In the last decade, fintech lending or P2P lending has grown rapidly, bringing joy to debtors, especially unbanked people. Even the recent scientific literature mentions that fintech lending companies can pose a serious threat to traditional banks. However, the literature only investigates the role of fintech lending as a path substitute for the banking loan. The literature does not explain the effect of fintech lending existence on interest rates and the banking itself. For this reason, this study aims to analyze the causality of P2P lending on the interest rates and income of commercial banks in Indonesia.

In general, our findings confirm all research hypotheses that P2P lending companies affect market interest rates and commercial bank income. The effect shows a different

influence. The existence of P2P lending companies currently has a positive effect on interest rates next year. The activities of lending companies (P2P lending versus banking) will create an increasingly competitive business climate. To bounce back from their defeat in technology services, traditional banks may lower lending rates or raise savings rates until interest rates are adjusted in financial markets. As a result, banks take on higher financial risks, causing the bank's interest income to decline. We also document that P2P lending companies lead to a decrease in bank income (interest and non-interest) in the long term. In addition, the two-way causality relationship between fintech lending companies and interest rates is also confirmed. Finally, the findings record that fintech lending companies determine non-interest income, but not otherwise.

Our findings imply several leaps to maintain and control P2P lending risks that could potentially affect the macroeconomic and financial conditions of banks. It would be great if the two sectors (P2P lending and banking) could go hand in hand to create a profitable business climate. In addition, this finding provides suggestions to regulators, that regulations and laws regarding full banking supervision can be socialized to P2P lending, including risk monitoring indicators. Commercial banks must also monitor and evaluate the risk of P2P lending including inspecting technology applications, developing financial systems, making emergency plans, or even cooperating with certain P2P lending platforms.

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Appendix

 See Tables 10, 11, 12, 13 and 14.

Table 10. Vector autoregressive model: Dependent P2P Lending

	Model 1			Model 2		
	Coef.	z	P > z	Coef.	z	P > z
p2p.L1	0.8838043	6.94	0.000*	0.7871104	6.22	0.000*
p2p.L2	0.3859197	2.40	0.016**	0.5352714	3.38	0.001*
p2p.L3	-0.4130795	-2.61	0.009*	-0.3068602	-1.82	0.069***
p2p.L4	0.1108393	0.90	0.366			
rate.L1	5.526561	1.30	0.194	2.04886	0.41	0.678
rate.L2	-10.48084	-1.44	0.149	-11.59548	-1.66	0.097***
rate.L3	6.302484	0.86	0.392	12.39952	2.76	0.006*
rate.L4	1.824918	0.42	0.673			
interest.L1						
interest.L2						
interest.L3						
interest.L4						
non_interest.L1						
non_interest.L2						
non_interest.L3						
car.L1				3.266382	1.60	0.111
car.L2				-0.8360393	-0.28	0.776
car.L3				-3.709716	-1.68	0.094***
car.L4						
fund.L1				22.61988	1.49	0.136
fund.L2				-18.10865	-1.08	0.282
fund.L3				-3.895904	-0.27	0.788
fund.L4						
bqcredit.L1				-0.1791939	-0.53	0.594
bqcredit.L2				-0.2197374	-0.59	0.553
bqcredit.L3				-0.2480125	-0.78	0.437
bqcredit.L4						
fqcredit.L1				54.69185	0.63	0.531
fqcredit.L2				-53.67934	-0.50	0.616
fqcredit.L3				-91.63325	-1.22	0.221

(continued)

Table 10. (continued)

	Model 1			Model 2		
	Coef.	z	P > z	Coef.	z	P > z
fqcredit.L4						
C	-9.879935	-2.24	0.025	138.0904	1.87	0.061
	Model 3			Model 4		
	Coef.	z	P > z	Coef.	z	P > z
p2p.L1	0.9794655	7.73	0.000*	0.8450576	6.01	0.000*
p2p.L2	0.5055258	2.96	0.003*	0.5863958	3.11	0.002*
p2p.L3	-0.4717891	-2.68	0.007*	-0.4167327	-2.18	0.030**
p2p.L4	-0.04344	-0.35	0.728	-0.0526368	-0.36	0.718
rate.L1						
rate.L2						
rate.L3						
rate.L4						
interest.L1	0.0047536	1.42	0.156	0.007103	1.22	0.224
interest.L2	-0.0006549	-0.17	0.868	0.0008893	0.15	0.883
interest.L3	-0.0039661	-1.03	0.301	-0.007493	-1.09	0.274
interest.L4	0.0071132	2.16	0.031**	0.0110468	2.03	0.042**
non_interest.L1						
non_interest.L2						
non_interest.L3						
car.L1				4.561727	1.60	0.109
car.L2				-3.036642	-0.94	0.346
car.L3				-6.048434	-1.92	0.054***
car.L4				-0.5940974	-0.23	0.821
fund.L1				15.04586	0.71	0.480
fund.L2				-10.12268	-0.47	0.639
fund.L3				-0.8365042	-0.04	0.969
fund.L4				11.5738	0.61	0.543
bqcredit.L1				-0.1721213	-0.54	0.587
bqcredit.L2				0.1086735	0.26	0.791
bqcredit.L3				-0.0942411	-0.22	0.829
bqcredit.L4				-0.4594214	-1.04	0.297

(continued)

Table 10. (continued)

	Model 3			Model 4		
	Coef.	z	P > z	Coef.	z	P > z
fqcredit.L1				203.1491	1.77	0.076***
fqcredit.L2				-13.46109	-0.11	0.915
fqcredit.L3				-78.85759	-0.60	0.550
fqcredit.L4				-98.65299	-1.16	0.246
C	.6524298	0.31	0.757	60.47509	0.70	0.484
	Model 5			Model 6		
	Coef.	z	P > z	Coef.	z	P > z
p2p.L1	1.017617	9.34	0.000*	1.014012	7.02	0.000*
p2p.L2	0.4934288	2.97	0.003*	-0.0213504	-0.15	0.881
p2p.L3	-0.541093	-4.88	0.000*			
p2p.L4						
rate.L1						
rate.L2						
rate.L3						
rate.L4						
interest.L1						
interest.L2						
interest.L3						
interest.L4						
non_interest.L1	0.0068869	0.87	0.383	-0.0137973	-1.19	0.235
non_interest.L2	-0.0025615	-0.29	0.774	0.020722	1.73	0.085***
non_interest.L3	0.0013017	0.17	0.865			
car.L1				-0.3933415	-0.15	0.881
car.L2				-2.49793	-0.91	0.361
car.L3						
car.L4						
fund.L1				32.19469	1.60	0.110
fund.L2				-31.22544	-1.51	0.131
fund.L3						
fund.L4						
bqcredit.L1				-0.4834795	-1.28	0.202

(continued)

Table 10. (continued)

	Model 5			Model 6		
	Coef.	z	P > z	Coef.	z	P > z
bqcredit.L2				.0800787	0.23	0.821
bqcredit.L3						
bqcredit.L4						
fqcredit.L1				-31.46698	-0.33	0.744
fqcredit.L2				-32.45408	-0.35	0.729
fqcredit.L3						
fqcredit.L4						
C	2.511451	1.40	0.162	148.5912	2.07	0.039

Note(s): * significant at the 1% level; ** significant at the 5% level; *** significant at the 10% level

Table 11. Vector error-correction model: Dependent first difference interest rate (D_rate)

	Model 1			Model 2		
	Coef.	z	P > z	Coef.	z	P > z
rate.LD1	0.5082272	4.12	0.000*	0.1470412	0.96	0.338
rate.LD2	-0.1804028	-1.31	0.190	-0.2709259	-1.86	0.063***
rate.LD3	0.4390287	3.35	0.001*			
p2p.LD1	0.0104524	2.77	0.006*	0.0068277	1.97	0.049**
p2p.LD2	0.0023118	0.66	0.508	0.0037557	1.03	0.302
p2p.LD3	-0.0031222	-0.85	0.393			
car.LD1				-0.0352316	-0.52	0.601
car.LD2				-0.0918751	-1.37	0.171
fund.LD1				0.6383486	1.52	0.129
fund.LD2				0.137597	0.33	0.739
bqcredit.LD1				-0.0122244	-1.40	0.162
bqcredit.LD2				-0.0010019	-0.11	0.915
fqcredit.LD1				-3.433533	-1.40	0.160
fqcredit.LD2				-1.524234	-0.69	0.493
C	0.000565	0.03	0.976	0.1696133	2.65	0.008*
_cell1	-0.0543381	-1.92	0.055**	-0.0515834	-3.75	0.000*
R-square	0.4109			0.5425		

(continued)

Table 11. (continued)

	Model 1			Model 2		
	Coef.	z	P > z	Coef.	z	P > z
Chi-square	36.27111			41.50608		
P > Chi-square	0.0000			0.0001		

* significant at the 1% level
 ** significant at the 5% level
 *** significant at the 10% level

Table 12. Vector error-correction model: Dependent of first difference interest income (D_interest)

	Model 3			Model 4		
	Coef.	z	P > z	Coef.	z	P > z
interest.LD1	0.3952371	2.52	0.012**	0.3690522	1.74	0.082***
interest.LD2	0.2580795	1.75	0.080***	0.2088769	1.08	0.279
interest.LD3	0.2429654	1.78	0.075***	-0.3135449	-1.53	0.125
p2p.LD1	-4.397452	-0.87	0.387	-10.67159	-1.77	0.076***
p2p.LD2	4.21675	0.96	0.336	2.528713	0.50	0.618
p2p.LD3	-3.392437	-0.65	0.513	-1.331639	-0.21	0.830
car.LD1				141.6064	1.12	0.264
car.LD2				-41.82367	-0.35	0.726
car.LD3				134.6958	1.17	0.243
fund.LD1				-108.2632	-0.12	0.907
fund.LD2				156.5906	0.17	0.862
fund.LD3				754.9105	0.92	0.357
bqcredit.LD1				-2.183663	-0.14	0.887
bqcredit.LD2				-1.063639	-0.06	0.951
bqcredit.LD3				5.353785	0.32	0.749
fqcredit.LD1				-6725.586	-1.60	0.109
fqcredit.LD2				5781.537	1.30	0.194
fqcredit.LD3				-6988.698	-2.16	0.030**
C	0.0059874	0.00	1.000	-0.0001372	-0.00	1.000
_cel1	-0.7798705	-4.50	0.000*	-0.5913302	-3.10	0.002*
_cel2				4.356429	2.11	0.035**

(continued)

Table 12. (continued)

	Model 3			Model 4		
	Coef.	z	P > z	Coef.	z	P > z
_cel3				17.10017	0.34	0.737
R-square	0.3476			0.6647		
Chi-square	27.1778			49.56345		
P > Chi-square	0.0007			0.0007		

* significant at the 1% level

** significant at the 5% level

*** significant at the 10% level

Table 13. Vector error-correction model: Dependent of first difference non-interest income (D_non_interest)

	Model 5			Model 6		
	Coef.	z	P > z	Coef.	z	P > z
non_interest.LD1	0.2124499	1.54	0.124	0.2274336	1.33	0.183
non_interest.LD2	0.1352763	1.03	0.302			
p2p.LD1	-3.843121	-2.14	0.032**	-4.003157	-1.95	0.052***
p2p.LD2	-0.5399393	-0.29	0.774			
car.LD1				19.31386	0.54	0.592
fund.LD1				-309.08	-1.07	0.283
bqcredit.LD1				-6.72031	-1.29	0.196
fqcredit.LD1				-2712.644	-2.28	0.023**
C	0.0050823	0.00	1.000	0.0001219	0.00	1.000
_cel1	-0.6243755	-4.33	0.000*	-0.5514356	-3.94	0.000*
_cel2				-0.1811814	-0.26	0.798
_cel3				3.274862	0.22	0.829
_cel4				-23.68483	-0.57	0.568
R-square	0.3202			0.4907		
Chi-square	25.42944			36.61535		
P > Chi-square	0.0003			0.0001		

* significant at the 1% level

** significant at the 5% level

*** significant at the 10% level

Table 14. Granger causality test

Equation	Excluded	Null Hypothesis	Chi-square	Prob > Chi-square
rate	p2p	p2p does not cause rate	11.45	0.022
interest	p2p	p2p does not cause interest	3.8249	0.430
non_interest	p2p	p2p does not cause non_interest	9.8946	0.019
p2p	rate	rate does not cause p2p	12.788	0.012
p2p	interest	interest does not cause p2p	5.8124	0.214
p2p	non_interest	non_interest does not cause p2p	0.84191	0.839

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Chapter 12

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Abstract





Fintech in Indonesia is growing very rapidly, this is also very interesting for researchers. This study looks at the effect of Fintech on the performance and risk of conventional banks in Indonesia. The proxy for fintech in this study is P2P lending and the adoption of fintech technology by banks. The number of conventional banks in Indonesia is 107 banks, and this study took a sample of 81 conventional banks. This research period is for 5 years from 2017 to 2021. The results show that P2P lending and fintech adoption do not affect the performance or risk of conventional banks. However, what is interesting about the results of this study is that the interaction between each independent variable with the moderating variable of bank ownership structure shows the results of the influence of the independent variable on the dependent variable which is significant. We find that bank ownership structure is proven to strengthen the effect of P2P lending and fintech adoption on bank risk, while the effect on performance is not significant. We found that the presence of P2P lending will increase the risk of conventional banks. While the effect of fintech adoption shows a lowering effect on bank risk, especially those owned by cooperatives. Our findings support previous research results that the presence of P2P lending will increase bank risk, and the adoption of fintech will decrease risk.

Keywords
(separated by '-')

Fintech - Bank Performance - Bank Risk - dan Bank Ownership Structure



The Effect of Fintech on Conventional Bank Performance and Bank Risk

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Abstract. Fintech in Indonesia is growing very rapidly, this is also very interesting for researchers. This study looks at the effect of Fintech on the performance and risk of conventional banks in Indonesia. The proxy for fintech in this study is P2P lending and the adoption of fintech technology by banks. The number of conventional banks in Indonesia is 107 banks, and this study took a sample of 81 conventional banks. This research period is for 5 years from 2017 to 2021. The results show that P2P lending and fintech adoption do not affect the performance or risk of conventional banks. However, what is interesting about the results of this study is that the interaction between each independent variable with the moderating variable of bank ownership structure shows the results of the influence of the independent variable on the dependent variable which is significant. We find that bank ownership structure is proven to strengthen the effect of P2P lending and fintech adoption on bank risk, while the effect on performance is not significant. We found that the presence of P2P lending will increase the risk of conventional banks. While the effect of fintech adoption shows a lowering effect on bank risk, especially those owned by cooperatives. Our findings support previous research results that the presence of P2P lending will increase bank risk, and the adoption of fintech will decrease risk.

Keywords: Fintech · Bank Performance · Bank Risk · dan Bank Ownership Structure

1 Introduction

The rapid development of technology affects the development of the global economic and financial world. According to the Financial Services Authority (OJK) fintech is an innovation in the financial services industry that utilizes the use of technology. According to The World Bank, financial technology (Fintech) can create new opportunities and challenges in the financial sector, both in terms of consumers, financial institutions and regulators. Fintech services allow business transactions anytime, anywhere and can provide flexibility for all users [1]. Although recently many banks have begun to develop financial technology by adopting fintech, on the other hand, there are also many fintech companies in Indonesia that are independent companies and not part of banks.



Fig. 1. P2P Lending growth in Indonesia from 2017 until 2021

Quoted from CNBC Indonesia following the Financial Stability Board (FSB), in Indonesia there are four categories of fintech innovation types. Namely payment, clearing and settlement. E-aggregator, risk management and investment then the last is peer to peer lending. The rapid development of fintech makes this research interested in following previous research [2] which looks at the impact of the growth of fintech companies on the performance of conventional banks in Indonesia. However, this study wants to look further into the impact of fintech in Indonesia. This study wants to look at the impact of fintech more broadly by looking at its impact on bank risk. In addition, the adoption of fintech technology is also highlighted in this study.

Figure 1 shows the rapid growth of fintech from 2017 to 2021. The presence of fintech, in this case P2PL, will directly lead to competition in the banking business, especially in lending to borrowers. This competition will have an impact on bank operations, which in turn will affect the performance and risk of the bank. Previous research says that fintech is a serious threat to traditional banking. The growth of fintech companies has a negative influence on banking performance [3] both conventional banks and Islamic banks [4]. Fintech is considered to have the opportunity to take over the main functions of traditional banks [5]. Fintech is becoming more preferred by consumers who emphasize the importance of transparency [6] and data security [7, 8].

2 Hypothesis Development

2.1 P2P Lending Loans

Peer to peer lending (P2P) is a fintech that is the main competitor of banks in becoming a loan service provider in this day and age. This is because P2P is considered to have emerged as an alternative or new option related to lending services around the world [9]. P2P is considered to reduce bank performance [10–13]. The development of fintech increases bank risk when the banking platform is affected by market risk [14]. There is strong evidence that fintech worsens risk taking and increases bank risk [15–17]. Although there have been many studies related to fintech and bank risk, the debate is still on whether fintech increases bank risk or fintech can reduce bank risk. Other research

suggests that fintech can reduce information costs, increase transparency and reduce economic capital [18]. The description above can generate the following hypothesis:

H1a: Total P2P Lending loans have an effect decreasing on Bank Performance

H1b: Total P2P Lending loans have an effect on increasing Bank Risk.

2.2 Technology Adoption

The development of financial technology makes banks inevitably have to adapt and adopt technology. As long as banking companies can adapt technology, it is not impossible that fintech developments can improve bank performance. Overall, fintech involves various applications of advanced technology that can support the development of the financial industry [19]. There is a significant positive relationship from fintech technology innovation to performance [20] and bank profitability [21]. Fintech technology can be used in reducing credit risk by making more reasonable credit assessments on credit default risk [22]. Personal credit evaluation is the most important thing in minimizing credit risk [23]. Other research reveals that fintech technology can be utilized in saving transaction costs, allocating credit resources, and better credit supervision [24]. The description above can generate the following hypothesis:

H2a: Fintech Adoption by banks can increase Bank Performance

H2b: Fintech Adoption by banks can decrease Bank Risk.

2.3 Agency Theory

Agency theory states that agency conflicts can occur between the principal (owner) and the agent (owner) [25]. (Agency Theory) explains the relationship between parties who own the company's Agency Theory or who delegate certain decision making (principal/owner/share-holder) to company managers (Agent). Agency theory focuses on the relationship in order to obtain the most efficient contract from the principal and agent relationship. The owner of the company expects management to be able to maximize the re-sources in the company so that the company's goals can be achieved.

A bank is also not free from agency conflicts. The results show that large public, private, and foreign banks are more efficient than small and medium-sized banks. Ownership structure is a significant determinant of efficiency [26]. Our results show that foreign banks outperform their domestic competitors, with bank size and profitability being the main drivers [27]. Findings reveal that bank ownership affects bank liquidity [28]. We found that ownership concentration has a significant and positive impact on liquidity creation [29]. The aforementioned description can generate the following hypothesis:

H3a: Bank Ownership Structure will strengthen the influence of fintech on Bank Performance

H3b: Bank Ownership Structure will strengthen the influence of fintech on Bank Risk.

The addition of bank ownership structure is another novelty of this study, but it is also expected to clarify the impact of fintech companies in Indonesia on conventional banks in Indonesia. The results of this study are expected to be useful for all sectors concerned with fintech and banks in Indonesia. For example, this research is expected to be useful for OJK as a state agency that functions as a financial accelerator. The results of the research can be an input for OJK in making policies that will regulate both fintech and banks in the current technological era. Furthermore, this research is expected to be a reference for bank stakeholders. They can certainly utilize the results of this research as a foundation in facing the era of financial technology. The facts from this research are expected to help banks in formulating strategies and policies in the future.

3 Methodology

3.1 Data

This study uses a random effect panel data regression model to test the effect of each variable tested in this study. The random effect model is the selected model in this study, after the researchers carried out the model selection process for this study. The samples selected in this study were conventional banks that published annual reports or financial reports during the 2017–2021 research period on the OJK website. The final sample obtained was 81 conventional banks. The following are the variables used in this study.

3.2 Estimation Formula

This study uses five dependent variables, three for bank performance and two for bank risk. So this research will have five research models. The following is the estimation formula used in this study:

$$\begin{aligned} \text{NIM}_{i,t} = & \beta_0 + \beta_1 \text{LOG_LEND}_{i,t} + \beta_2 \text{ADOPT}_{i,t} + \beta_3 \text{LOG_LEND} * \text{GOV}_{i,t} \\ & + \beta_4 \text{LOG_LEND} * \text{PRIV}_{i,t} + \beta_5 \text{LOG_LEND} * \text{COP}_{i,t} \\ & + \beta_6 \text{LOG_LEND} * \text{FOR}_{i,t} \\ & + \beta_7 \text{LOG_LEND} * \text{ECT}_{i,t} + \beta_8 \text{ADOPT} * \text{GOV}_{i,t} + \beta_9 \text{ADOPT} * \text{PRIV}_{i,t} \\ & + \beta_{10} \text{ADOPT} * \text{COP}_{i,t} + \beta_{11} \text{ADOPT} * \text{FOR}_{i,t} + \beta_{12} \text{ADOPT} * \text{ECT}_{i,t} \\ & + \beta_{13} \text{LN_SIZE} + \beta_{14} \text{CAP} + \beta_{15} \text{IF}\alpha_i + \mu_{it} \end{aligned} \quad (1)$$

$$\begin{aligned} \text{ROA}_{i,t} = & \beta_0 + \beta_1 \text{LOG_LEND}_{i,t} + \beta_2 \text{ADOPT}_{i,t} + \beta_3 \text{LOG_LEND} * \text{GOV}_{i,t} \\ & + \beta_4 \text{LOG_LEND} * \text{PRIV}_{i,t} + \beta_5 \text{LOG_LEND} * \text{COP}_{i,t} \\ & + \beta_6 \text{LOG_LEND} * \text{FOR}_{i,t} + \beta_7 \text{LOG_LEND} * \text{ECT}_{i,t} \\ & + \beta_8 \text{ADOPT} * \text{GOV}_{i,t} + \beta_9 \text{ADOPT} * \text{PRIV}_{i,t} + \beta_{10} \text{ADOPT} * \text{COP}_{i,t} \\ & + \beta_{11} \text{ADOPT} * \text{FOR}_{i,t} + \beta_{12} \text{ADOPT} * \text{ECT}_{i,t} + \beta_{13} \text{LN_SIZE} \\ & + \beta_{14} \text{CAP} + \beta_{15} \text{IF}\alpha_i + \mu_{it} \end{aligned} \quad (2)$$

$$\text{ROE}_{i,t} = \beta_0 + \beta_1 \text{LOG_LEND}_{i,t} + \beta_2 \text{ADOPT}_{i,t} + \beta_3 \text{LOG_LEND} * \text{GOV}_{i,t}$$

$$\begin{aligned}
& + \beta_4 \text{LOG_LEND} * \text{PRIV}_{i,t} + \beta_5 \text{LOG_LEND} * \text{COP}_{i,t} \\
& + \beta_6 \text{LOG_LEND} * \text{FOR}_{i,t} + \beta_7 \text{LOG_LEND} * \text{ECT}_{i,t} \\
& + \beta_8 \text{ADOPT} * \text{GOV}_{i,t} + \beta_9 \text{ADOPT} * \text{PRIV}_{i,t} + \beta_{10} \text{ADOPT} * \text{COP}_{i,t} \\
& + \beta_{11} \text{ADOPT} * \text{FOR}_{i,t} + \beta_{12} \text{ADOPT} * \text{ECT}_{i,t} \\
& + \beta_{13} \text{LN_SIZE} + \beta_{14} \text{CAP} + \beta_{15} \text{IF}\alpha_i + \mu_{it}
\end{aligned} \tag{3}$$

$$\begin{aligned}
\text{NPL}_{i,t} = & \beta_0 + \beta_1 \text{LOG_LEND}_{i,t} + \beta_2 \text{ADOPT}_{i,t} + \beta_3 \text{LOG_LEND} * \text{GOV}_{i,t} \\
& + \beta_4 \text{LOG_LEND} * \text{PRIV}_{i,t} + \beta_5 \text{LOG_LEND} * \text{COP}_{i,t} \\
& + \beta_6 \text{LOG_LEND} * \text{FOR}_{i,t} + \beta_7 \text{LOG_LEND} * \text{ECT}_{i,t} \\
& + \beta_8 \text{ADOPT} * \text{GOV}_{i,t} + \beta_9 \text{ADOPT} * \text{PRIV}_{i,t} + \beta_{10} \text{ADOPT} * \text{COP}_{i,t} \\
& + \beta_{11} \text{ADOPT} * \text{FOR}_{i,t} + \beta_{12} \text{ADOPT} * \text{ECT}_{i,t} + \beta_{13} \text{LN_SIZE} \\
& + \beta_{14} \text{CAP} + \beta_{15} \text{IF}\alpha_i + \mu_{it}
\end{aligned} \tag{4}$$

$$\begin{aligned}
\text{SD ROE}_{i,t} = & \beta_0 + \beta_1 \text{LOG_LEND}_{i,t} + \beta_2 \text{ADOPT}_{i,t} + \beta_3 \text{LOG_LEND} * \text{GOV}_{i,t} \\
& + \beta_4 \text{LOG_LEND} * \text{PRIV}_{i,t} + \beta_5 \text{LOG_LEND} * \text{COP}_{i,t} \\
& + \beta_6 \text{LOG_LEND} * \text{FOR}_{i,t} + \beta_7 \text{LOG_LEND} * \text{ECT}_{i,t} \\
& + \beta_8 \text{ADOPT} * \text{GOV}_{i,t} + \beta_9 \text{ADOPT} * \text{PRIV}_{i,t} + \beta_{10} \text{ADOPT} * \text{COP}_{i,t} \\
& + \beta_{11} \text{ADOPT} * \text{FOR}_{i,t} + \beta_{12} \text{ADOPT} * \text{ECT}_{i,t} \\
& + \beta_{13} \text{LN_SIZE} + \beta_{14} \text{CAP} + \beta_{15} \text{IF}\alpha_i + \mu_{it}
\end{aligned} \tag{5}$$

3.3 Variable Description

Variable Dependent

Bank performance is measured using Net Interest Margin (NIM), Return On Asset (ROA), and Return On Equity (ROE), while for Bank Risk will be measured using Non Performance Loan (NPL), and Standard Deviation_ROE (SD_ROE). The following is the operational definition of each dependent variable:

- NIM: Net interest income/Average Earning Assets \times 100%
ROA: Net Profit After Tax/Total Assets \times 100%
ROE: Net Profit After Tax/Equity \times 100%
NPL: (Substandard + Doubtful + Bad Debt)/Credit Disbursed] \times 100%
SD_ROE: Standard Deviation of ROE.

Variable Independent

The independent variables in this study are Total P2P Loans (LEND) and Fintech Technology Adoption (ADOPT). The following is an operational definition of each independent variable:

LEND: Logarithm of P2P loan amount each year

ADOPT: Percentage of five adoption criteria.

This study uses five criteria to measure the level of technology adoption by banks such as the use of ATMs, Internet Banking, SMS Banking, E-commerce, and cooperation with fintech lending companies.

Variable Moderating

This study uses the variable Bank ownership structure as a moderating variable. Bank ownership structure consists of government ownership (GOV), national private (PRI), cooperative (COP), foreign (FOR), and other ownership (ETC). The following is the measurement of these variables:

GOV: $(\text{Total Government Ownership}/\text{Total Ownership}) \times 100\%$

PRIV: $(\text{Total Private Ownership}/\text{Total Ownership}) \times 100\%$

COP: $(\text{Total Cooperative Ownership}/\text{Total Ownership}) \times 100\%$

FOR: $(\text{Total Foreign Ownership}/\text{Total Ownership}) \times 100\%$

ETC: $(\text{Total Other Ownership}/\text{Total Ownership}) \times 100\%$.

Variable Control

There are 3 control variables in this study, namely Bank size (SIZE), Total Bank capitalization (CAP) and inflation (INF). The following is the measurement of each variable:

SIZE: Logarithm of Total Assets

CAP: Total Equity/Total Assets

INF: Inflation Rate in Indonesia.

4 Result

Table 1 shows the descriptive statistics of this study. It can be seen that the mean value of NIM is 5.004963, mean value of ROA 1.385197, mean value of ROE 7.564404, mean value of NPL 1.443281, mean value of SD_ROE 3.723318, mean value of LENDING $1.09e+14$, mean value of ADOPT 65.13854, average GOV value 33.34179, average PRIV value 33.77603, average COP value 0.6292443, average FOR value 30.80569, average ETC value 1.523134, average SIZE value 6.77218, average CAP value 0.19166, average INF value 2.616599. In addition to the average value data, there are also maximum, minimum and standard deviation values of each variable that will be used in this study.

Table 2 shows the correlation matrix of the tested variables. NIM is positively correlated with ROA with a value of 0.4379. NIM is positively correlated with ROE with a value of 0.4288. NIM is negatively correlated with NPL with a value of -0.1525 . NIM is negatively correlated with SD ROE with a value of -0.2352 . NIM is negatively correlated with LENDING with a value of -0.1426 . NIM is negatively correlated with ADOPT with a value of -0.0499 . NIM is positively correlated with GOV with a value

Table 1. Statistic Descriptive

Variable	Observation	Mean	Std. Dev	Min	Max
NIM	397	5.004963	2.295226	-2.58	19.3
ROA	397	1.385197	1.641708	-11.27	4.97
ROE	397	7.564404	9.409588	-34.1	25.64
NPL	397	1.443218	1.302153	0	9.92
SD_ROE	397	3.723318	5.72434	0	32.67
LENDING	397	1.09e+14	1.06e+14	1.60e+12	2.96e+14
ADOPT	397	65.13854	29.09048	0	100
GOV	397	33.34179	44.05526	0	100
PRIV	397	33.77603	40.56993	0	100
COP	397	0.6292443	3.983359	0	47.16
FOR	397	30.80569	41.9476	0	100
ETC	397	1.523134	6.648555	0	49.35
SIZE	397	6.77218	1.426163	2.896526	9.196663
CAP	397	0.19166	0.1436646	0.0015874	1.075036
INF	397	2.66599	0.7352182	1.68	3.61

of 0.4138. NIM is negatively correlated with PRIV with a value of -0.0935 . NIM is positively correlated with COP with a value of 0.0350 . NIM is negatively correlated with FOR with a value of -0.3416 . NIM is negatively correlated with ETC with a value of -0.0345 . NIM is negatively correlated with SIZE with a value of -0.1534 . NIM is positively correlated with CAP 0.1083 . NIM is positively correlated with INF with a value of 0.1617 . There is a high correlation between ROA and ROE with a value of 0.8415 . This is natural because the calculation of ROA and ROE both use Return as their divisor.

Tables 3 and 4 are the results of regression tests conducted using the fixed effect model. The results of Table 3 show the results where P2P loans (LOG_LEND) have a significant negative effect on NPL worth -11.94 . It can be concluded that P2P loans make conventional bank credit risk decrease. Furthermore, none of the other 4 dependent variables are affected by the existence of P2P loans. The adoption variable is also not found to have an effect on either bank performance or bank risk. Then the next step is to include the ownership structure variable as moderation on the P2P loan variable. The result is that all types of ownership have a significant positive effect on NPL. This suggests that bank ownership increases credit risk. It was also found that cooperative ownership decreases risk through SD ROE measurement. Furthermore, there is no other effect of P2P lending moderated by ownership structure on bank performance or risk.

Table 4 is a continuation of Table 3. Table 4 shows the results of technology adoption moderated by ownership structure on bank performance and risk. The results show that only cooperative ownership has a significant negative effect on NPL and a significant

Table 2. Correlation Matrix

	NIM	ROA	ROE	NPL	SD_ROE	LENDING	ADOPT	GOV	PRIV	COP	FOR	ETC	SIZE	CAP	INF
NIM	1.000														
ROA	0.438	1.000													
ROE	0.429	0.842	1.000												
NPL	-0.153	-0.374	-0.456	1.000											
SD_ROE	-0.235	-0.349	-0.374	0.232	1.000										
LENDING	-0.143	-0.043	-0.020	-0.125	-0.073	1.000									
ADOPT	-0.050	0.040	0.180	-0.178	-0.055	0.233	1.000								
GOV	0.414	0.406	0.557	-0.258	-0.119	-0.003	0.098	1.000							
PRIV	-0.094	-0.171	-0.245	0.225	0.112	-0.003	-0.016	-0.508	1.000						
COP	0.035	-0.076	-0.051	0.176	0.348	-0.067	0.036	-0.007	0.012	1.000					
FOR	-0.342	-0.264	-0.358	0.038	-0.020	0.023	-0.118	-0.555	-0.415	-0.111	1.000				
ETC	-0.035	0.056	0.089	-0.012	0.014	-0.050	0.175	-0.012	-0.136	0.093	-0.026	1.000			
SIZE	-0.153	0.035	0.077	-0.115	-0.116	0.480	0.414	0.013	-0.129	-0.088	0.099	0.128	1.000		
CAP	0.108	0.044	-0.077	-0.013	-0.061	0.055	-0.101	-0.131	0.100	-0.090	0.038	0.072	-0.031	1.000	
INF	0.162	0.073	0.064	0.116	0.053	-0.863	-0.246	0.007	0.007	0.083	-0.033	0.059	-0.624	-0.051	1.000

Table 3. Fixed Effect Regression Result

Fixed Effect Regression					
	NIM	ROA	ROE	NPL	SD_ROE
LOG_LEND	1.504	1.656	5.042	-11.94*	38.09
	(0.57)	(0.32)	(0.11)	(-1.82)	(1.42)
ADOPT	-0.460	0.198	0.731	1.504	-5.426
	(-1.08)	(0.25)	(0.11)	(1.60)	(-1.40)
LOG_LENDxGOV	-0.0255	-0.0129	0.00223	0.131**	-0.413
	(-0.89)	(-0.23)	(0.00)	(1.98)	(-1.53)
LOG_LENDxPRIV	-0.0299	-0.00646	0.0242	0.131**	-0.404
	(-1.03)	(-0.12)	(0.05)	(1.97)	(-1.48)
LOG_LENDxCOP	-0.0214	-0.0150	-0.0317	0.160**	-0.449
	(-0.72)	(-0.28)	(-0.07)	(2.47)	(-1.70)
LOG_LENDxFOR	-0.0236	-0.00517	0.0339	0.25*	-0.383
	(-0.84)	(-0.10)	(0.08)	(1.93)	(-1.48)
LOG_LENDxETC	-0.0258	-0.000692	0.0579	0.121*	-0.363
	(-0.94)	(-0.00)	(0.12)	(1.81)	(-1.30)
N	397	397	397	397	397

Note(s): t statistics in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

positive effect on SD ROE. The rest of the moderation of government, private, foreign and other ownership has no effect on either bank performance or risk. For the results of the control variables, it is found that total assets have a significant positive effect on NIM and Inflation has a positive effect on NPL.

5 Discussion

This is different from previous research which found that P2P lending reduces bank performance [2]. The results of this study showed different results. So it is concluded that the increase in P2P lending is no longer a factor that reduces bank performance. Interesting results were found when P2P loans reduce credit risk (NPL). This happens because P2P loans are substitutes for loans from banks, as can be seen from the fact that bank consumers switch to P2P borrowing [30]. The ease of borrowing is a factor in why consumers prefer P2P as a new alternative to loan services [9]. Furthermore, the results reveal that all types of ownership have a significant positive effect on NPL. This is in line with previous research when government ownership increases bank risk [31], private ownership also increases credit risk [32], and foreign ownership is considered to often charge high-interest rates, especially in developing countries, thereby increasing defaults [33] and for cooperative ownership it is different. With previous research which says that the ownership of cooperatives with large assets has a low systematic and business risk

Table 4. Fixed Effect Regression Result (Continue)

Fixed Effect Regression					
	NIM	ROA	ROE	NPL	SD_ROE
ADOPTxGOV	0.00451	-0.00150	-0.00458	-0.0153	0.0557
	(1.03)	(-0.19)	(-0.07)	(-1.62)	(1.45)
ADOPTxPRIV	0.00483	-0.00198	-0.00300	-0.0154	0.0549
	(1.13)	(-0.24)	(-0.09)	(-1.64)	(1.42)
ADOPTxCOP	0.00255	0.000848	0.00891	-0.0195**	0.0682*
	(0.59)	(0.11)	(0.14)	(-2.13)	(1.83)
ADOPTxFOR	0.00393	-0.00227	-0.00774	-0.0148	0.0520
	(0.95)	(-0.29)	(-0.12)	(-1.62)	(1.41)
ADOPTxETC	0.00477	-0.00342	-0.0132	-0.0436	0.0474
	(1.15)	(-0.41)	(-0.19)	(-1.43)	(1.19)
SIZE	0.627*	-0.286	-2.947	-0.134	0.786
	(2.13)	(-0.83)	(-1.64)	(-0.67)	(0.99)
CAP	0.398	0.821	5.022	-0.525	-1.126
	(0.46)	(0.85)	(1.17)	(-0.86)	(-0.62)
INF	0.278	0.786	6.345	0.882**	-1.575
	(0.79)	(1.12)	(1.53)	(1.99)	(-0.93)
_cons	16.40	-10.76	-91.64	-12.20	29.00
	(2.31)	(-0.86)	(-1.62)	(-1.43)	(1.03)
N	397	397	397	397	397

Note(s): t statistics in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

[34]. This is not the case in Indonesia because the average ownership of cooperatives in Indonesia (Table 1) is less than 1% which shows that they are less dominant in making decisions regarding bank policies. Banks with cooperative ownership are considered to have large assets so it will reduce their risk [34], this study supports the results where in Indonesia risk measurement using SD ROE is proven to decrease when there is cooperative ownership in banks.

Bank adoption does not have a significant impact on banks. This is because the development of financial technology in Indonesia has existed since 2010 [35] and the majority of conventional banks have adopted it (Table 1). It can be seen that the average adoption rate of conventional banks in Indonesia is more than 65%. So there is no significant effect of technology adoption on bank performance and performance directly. Interesting results occur when the ownership structure moderating variable is included. The results show that cooperative ownership has a significant negative effect on NPL and a significant positive effect on SD ROE. This happens because of the large asset factor of cooperatives [34] which can accelerate adoption so that it can be used in reducing

credit risk by making a more reasonable credit rating on credit default risk [22] and the intensity of technology adoption has been shown to reduce credit risk [36]. Of course, this large cost poses a big profitability risk as well. One of the main risks of technology development is profitability risk [37] because technology investment makes banks lose revenue due to adoption costs.

6 Conclusion

The conclusion of this study is that out of three hypotheses only one hypothesis is accepted. The first hypothesis is rejected because in this study P2P lending does not reduce bank performance and also does not increase bank risk. The second hypothesis is also rejected because in this study technology adoption has no impact on improving bank performance and there is also no impact of technology adoption on reducing bank risk. Only the third hypothesis was partially accepted and had half the expected results. It is found that the impact of ownership structure strengthens the effect of P2P lending and technology adoption on bank risk. On the other hand, the impact of ownership structure is not proven to strengthen the effect of P2P lending and technology adoption on the performance of conventional banks in Indonesia.

This research is expected to be the basis for policy making for shareholders in the ownership structure of banks in the current fintech era. This research is also expected to be the basis for the government through OJK to always supervise fintech and banks so that these two sectors can always run side by side without harming each other.

The limitation of this study is that it only looks at the impact of fintech lending and technology adoption on one bank sector, namely conventional banks. In Indonesia there are still other banks such as Islamic banks that can be the sample of further research. Then the measurement of bank risk only uses two measurements, namely credit risk (NPL) and profitability risk (SD ROE). There are still other risk measures that can be included in future research.

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Abstract

The study of gender diversity of Islamic bank boards (Board of Directors-BOD and Shariah Supervisory Board-SSB) is still limited. The aim of this study is to empirically prove the effect of gender diversity on the board (BOD and SSB) on financial soundness. We use unbalanced panel data on 38 Islamic banks in 5 countries in Southeast Asia with an observation period of 2010–2019. Using Random-effects GLS regression, we found that BOD's gender and SSB did not affect financial soundness. However, we found that women in SSB members strengthened the positive effect of BOD's gender on financial soundness. The corporate governance structure of Islamic banks, BOD and SSB are jointly involved in making bank business decisions. SSB as a multi-layer governance and completes the duties of BOD as supervisor and advisor in bank operations. The presence of women as SSB members strengthens the relationship between BOD gender diversity and financial soundness. Our results are robust after performing the 2SLS test to address the possible endogeneity problem.

Keywords
(separated by '-')

Gender Diversity - Islamic bank - Financial Performance - Financial soundness



Women in the Boardroom and Financial Soundness-Study at Islamic Banks in Southeast Asia

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Abstract. The study of gender diversity of Islamic bank boards (Board of Directors-BOD and Shariah Supervisory Board-SSB) is still limited. The aim of this study is to empirically prove the effect of gender diversity on the board (BOD and SSB) on financial soundness. We use unbalanced panel data on 38 Islamic banks in 5 countries in Southeast Asia with an observation period of 2010–2019. Using Random-effects GLS regression, we found that **BOD's gender and SSB** did not affect financial soundness. However, we found that women in SSB members strengthened the positive effect of **BOD's gender** on financial soundness. The corporate governance structure of Islamic banks, BOD and SSB are jointly involved in making bank business decisions. SSB as a multi-layer governance and completes the duties of BOD as supervisor and advisor in bank operations. The presence of women as SSB members strengthens the relationship between BOD gender diversity and financial soundness. Our results are robust after performing the 2SLS test to address the possible endogeneity problem.

Keywords: Gender Diversity · Islamic bank · Financial Performance · Financial soundness

1 Introduction

Islamic banks (IB) carry out profitable and Shariah-compliant business operations. A business environment more suited to conventional bank (BC) operations causes IBs to face complex operations [1]. IB is not easy to invest in bank funds when there is excess liquidity because not all investment instruments are Shariah-compliant. IB's risk is getting bigger because IB provides services to customers with economic motivation rather than religious motivation. IB customers will transfer their funds when the IB cannot provide competitive profit sharing than interest [2, 3]. An environment that does not support IB operations causes IBs not to be able to operate ideally according to Shariah.

The complexity of IB operations is why researchers explore the bank financial soundness. Khalil and Taktak [4] use the characteristics of SSB (number of members, expertise in finance/accounting, presence of a Mufti, interlock, foreign) to explain the financial

soundness of an IB. They found that financial soundness was negatively affected by the number of SSBs, and no other SSB indicators (presence of the Mufti, interlocked, foreign members) affected financial soundness. Lassoued [4] uses the number of independent BOD and SSB, and BOD to explain the financial soundness of IB. They found that independent board of directors (BOD) positively impacted on financial soundness. However, the number of SSB and BOD does not affect on financial soundness. Khalil and Slimene [4] found different results that an independent BOD negatively impacted IB's financial soundness, while CEO duality positively affected IB's financial soundness. Other characteristics of the BOD (foreign director, institutional director, chairman with a Shariah degree, interlocked chairperson, and the Board of Directors size) do not affect the financial soundness of IB.

Corporate governance establishes a control mechanism, and reduces agency, and ensures the interests of stakeholders [4, 5]. Researchers used various indicators of BOD and SSB but were limited to gender characteristics [4]. In the economic-psychological literature, having a female board avoids potential bankruptcy because women avoid 'risk experimentation', 'intellectual risk taking', and 'gambling' [4]. In addition, women are less likely to make risky policies [6] and are more conservative in making investment decisions [6]. In the agency conflict approach, women's boards are more effective in monitoring the performance of directors than men's boards [7], so women's boards have a positive impact on corporate performance [6, 8].

A02

SSB is an independent board and specifically exists at IBs [4]. SSB plays an important role as an internal control mechanism with the task of supervising the activities of Islamic banks [9], being responsible for Shariah compliance, and managing risks that can threaten the sustainability of the bank [10, 11]. Khalil and Slimene [12], Khalil and Taktak [4], and Lassoued [13] have proven the role of SSB in influencing the financial soundness of IB. However, researchers have not explained the role of SSB's gender in influencing the financial soundness of IB. In line with the opinion of Jabari and Muhamad [7] and Adams and Ferreira [13] that women's boards are more effective in monitoring, we argue that gender in SSB positively influences on financial soundness.

Previous studies were still limited to examining the effect of SSB's gender diversity on bank performance. We only found two studies by Jabari and Muhamad [7, 14]. Jabari and Muhamad [7] use gender diversity of BOD and SSB as factors that affect bank financial performance. Using a sample of 14 Islamic banks in Indonesia and 16 in Malaysia, they did not find a weak gender role of BOD and SSB to increase bank ROAA and ROAE. Jabari and Muhamad [14] examined the effect of BOD's gender and SSB on insolvency risk and bank credit. Their study using 85 banks from 26 countries found a weak role of BOD's gender and SSB on risk and they only found the effect of women's BOD percentage on the risk of insolvency. From the findings above, it can be concluded that the gender diversity of BOD and SSB in Islamic banks cannot increase the effectiveness of the board in carrying out its role as supervisor and consultant for other boards in bank management.

Jabari and Muhamad [14] consider that the SSB is a unique board in Islamic banks which has the task of supervising and guaranteeing the compliance of bank operations according to Islamic law. In carrying out its duties, SSB is often involved with BOD because product evaluation must pay attention to economic advantages and compliance

with Shariah. In addition, banks involve SSB in product innovation, and bank risks are attached to these products [15]. Board decisions are generally made collectively between managers, BOD and SSB [16]. Based on this assumption, we argue that **SSB's gender** strengthens the relationship between **BOD gender** and bank financial performance.

This study contributes in two ways. We contribute to the development of literature on the role of **BOD gender and SSB's gender** in Islamic banks on the financial performance of banks. Second, we fill the gap by providing evidence and explaining how the gender role of SSBs affect financial performance. Previous studies did not prove the role of SSB's gender on financial performance and risk-taking.

In the section below, we present the theoretical framework and hypothesis development. Sample description, variable measurement methods, and data analysis are described in chapter three. The fourth section describes the results of the study, and our final section describes the conclusions, recommendations, and limitations of the study.

2 Theories and Hypotheses

Recently, companies have come under public pressure to increase gender diversity, and several European countries (Belgium, France, Norway, and Italy) have passed laws requiring more female board representatives for specific companies [17]. This policy was taken due to the limited number of women in the company's top management [14]. PwC's 2018 Annual Corporate Directors Survey shows that 72–94% of directors argue that diversifying corporate boards provides new perspectives to boards, improves performance, improves investor relations, and avoids risky policies [17]. However, the results of this survey show that 26–48% of directors think that shareholders are too busy with board diversification and argue that board diversity results in unnecessary nominations of candidates and ignores the criteria for board members. The public push for gender equality on the board led to a growth in the number of women serving in the top management of companies. Nili [18] reports that the proportion of female directors in 2017 was 11.9%, increasing to 16.5% in 2015.

In the psychological-economic theory approach, men and women have different risk-taking tendencies, where women tend to avoid risk [19]. In addition, women's boards are more effective in substantively monitoring the performance of directors than men [7]. Byrnes et al. [20] reported that entities that have female boards would avoid potential bankruptcy because women avoid risky experimentation, risk-taking, and gambling-prone policies. Thus, women are less likely to make risky policies [6, 21]. Furthermore, Cardillo et al. [8] found that the presence of women's boards improves the financial performance of the company.

H1: **BOD's gender** has a positive effect on financial soundness.

SSB is an additional board in Islamic banks. *The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI)*, in its governance standard number 1, states that the SSB is an independent board that has the task of directing, reviewing, and supervising bank operations to comply with Shariah law and principles [22]. To carry

out its duties, SSB cooperates with other boards so that SSB is often involved in making bank business decisions. SSB can recommend banking products with low risk to other boards. SSB is a consultant and supervisor for other boards, so SSB has a function like BOD. Based on the perspective of psychological-economic theory and RDT, women's boards provide a different perspective than men's, so women are valuable resources to improve the performance of boards and companies. On this basis, and following the opinions of Jabari and Muhamad [7, 14], we develop the following hypothesis:

H2: **SSB's gender** has a positive influence on financial soundness.

3 Method

The sample of this study is 38 full-flagged Islamic banks in 5 countries in Southeast Asia with an observation period of 2010–2019. We omit Islamic windows (of conventional banks) because these banks do not publish separate financial statements from conventional banks [14]. We use unbalanced panel data on 362 bank-years.

We use the z-score as an indicator of financial soundness. Z-score measures bank stability [13] and a stable bank indicates that the bank is far from bankruptcy and good financial soundness [12]. A high z-score indicates that the bank has high financial soundness [12] (Table 1).

Estimation method:

$$Z\text{-score}_{1,t} = \beta_0 + \beta_1 \text{GPBOD}_{1,t} + \beta_2 \text{GPSSB}_{1,t} + \beta_3 \text{control}_{1,t} + \varepsilon \quad (1)$$

$$Z\text{-score}_{1,t} = \beta_0 + \beta_1 \text{GDBOD}_{1,t} + \beta_2 \text{GDSSB}_{1,t} + \beta_3 \text{control}_{1,t} + \varepsilon \quad (2)$$

4 Results

4.1 Descriptive Analysis

Table 2 presents a descriptive analysis of all variables. Table 2 shows that the sample has an average high financial soundness (mean 129.935) and indicates that the sample has a low risk of bankruptcy. Our sample has a low credit risk (mean NPL is 3.75%). The low NPL supports the increase in z-score.

Table 2 shows that 59.3% of the sample had a female BOD. However, this female BOD is only 2.46% of all BOD members. 59.1% of the sample had female SSB members. However, the percentage of female SSB is still minimal, namely 2.28%.

4.2 Regression Analysis

The results of the regression test are presented in Table 3. Breusch and Pagan lagrange multiplier (LM) test models 1 and 2 produce a p-value of 0.000 and indicate heterogeneity of data between banks. The results of this test do not recommend data analysis using Ordinary Least Square (OLS). Hausman test on both models yielded a p-value of more

Table 1. Measurement variables

Variable	Definition	Measurement	References
Dependent Variables			
z-score	Financial Soundness	$Z - Score_{t,1} = \frac{ROAA_{t,1} + CAR_{t,1}}{\sigma ROA_{t,1}}$ A higher Z-score indicates that the banks have higher financial soundness	[12, 23]
Independent Variables			
GPBOD	The percentage of women on the BOD	The percentage of women sitting on the BOD.	[7, 14]
GDBOD	the presence of women on the BOD	It takes a value of 1 when at least one woman sits on the BOD and 0 otherwise (dummy).	[7, 14]
GDSSB	the presence of women on the SSB	It takes a value of 1 when at least one woman sits on the SSB and 0 otherwise (dummy).	[7, 14]
GPSSB	The percentage of women on the SSB	The percentage of women sitting on the SSB.	[7, 14]
Control Variables			
BODSIZE	The number of BOD members.	The total number of members on the BOD	[7, 14]
SSBSIZE	The number of SSB members.	The total number of members on the SSB	[7, 14]
NPL	Non-Performing Loan	$NPL_{t,1} = \frac{Badloan_{t,1}}{Loan_{t,1}}$	[14]
DIVER-INCOME	Income diversity	Ratio of non-financing income to total operating income	[24]
LOAN	Loan ratio to assets	$LOAN_{t,1} = \frac{Loan_{t,1}}{Asset_{t,1}}$	[25]
GDP	GDP Growth	The annual growth rate of per capita GDP in percentage.	[26]
INF	inflation	The annual inflation in percentage.	[27]

than 0.05, so it is recommended to use random-effects generalized least squares (GLS) regression. Models 1 and 2 were analyzed using random-effects GLS regression. The Variance Inflation Factor (VIF) test results in models 1 and 2 resulted in an average VIF

Table 2. Descriptive analysis.

Variables	Mean	Std. Dev.	Min	Max
z-core	129.93	165.98	0.09	856.30
GDBOD	0.593	0.492	0.000	1.000
GDSSB	0.591	0.492	0.000	1.000
GPBOD	2.46	5.96	0.00	40.00
GPSSB	2.28	8.46	0.00	60.00
BODSIZE	8.14	1.77	4.00	14.00
SSBSIZE	4.01	1.54	2.00	6.00
NPL	3.75	6.85	0.00	73.97
DIVER_INCOM	24.59	30.62	-38.81	408.33
LOAN	61.44	15.41	7.82	87.63
GDP	5.19	1.32	-2.51	14.52
INF	2.96	1.75	-1.26	6.41

score of 1.39. This VIF score is less than 0.10 and indicates no multicollinearity problem in the model. The results of the modified Wald test resulted in a p-value score of less than 0.05 and indicated the presence of heteroscedasticity. In addition, the Wooldridge test produces a p-value score of more than 0.06, indicating that the model does not have autocorrelation.

Table 3 shows that GPBOD produces a coefficient of 0.459, a robust standard error of 0.360, and a significance of more than 0.10. These results indicate that the percentage of women on the BOD has no effect on the z-score. The same result is also presented in model 2, where GDBOD produces a coefficient of 2.734, a robust standard error of 2.141, and a significance of more than 0.10. These results also show that the presence of women on the BOD does not affect the z-score. The test results of these two models indicate that the presence of women as members of the BOD does not affect the performance of the board in supervising the performance of directors to improve financial soundness. The results of this study support the findings of Farag and Mallin [29] that men and women may have the same preference for risk, implying that gender has no effect on risk-taking. The results of this study are consistent with the findings of Jabari and Muhamad [14], Khan et al.[30], and Adams and Ferreira [31] who found that the presence of women's boards did not affect risk.

Table 3 shows that GPSSB produces a coefficient of -0.093, a robust standard error of 0.239, and a significance of more than 0.10. These results indicate that the percentage of women on the SSB does not affect the z-score. The same result is also presented in model 2, where GDSSB produces a coefficient of 2.734 robust standard error of 2.141 and a significance of more than 0.10. These results also show that the presence of women on the SSB does not affect the z-score. These results also show that there is no difference in board performance between men and women [29]. The results of this study corroborate

Table 3. Regression Analysis.

	Coef.	Robust Std. Err.	Coef.	Robust Std. Err.
GPBOD	0.459	0.360	–	–
GPSSB	–0.093	0.239	–	–
GDBOD	–	–	2.734	2.141
GDSSB	–	–	–0.787	2.023
BODSIZE	–1.881**	0.875	–1881**	0.875
SSBSIZE	1.178	1.172	1.178	1.172
NPL	–0.072	0.069	–0.072	0.069
DIVER_INCOM	0.047***	0.010	0.047***	0.010
LOAN	–0.068	0.108	–0.068	0.108
GDP	0.277	1.022	0.277	1.022
INF	–1.950*	1.124	–1.950*	1.124
COUNTRYDUMMY	–11,470	22.131	–11,470	22.131
YEARDUMMY	0.759	0.478	0.759	0.478
_cons	159,787***	51.843	160,705***	51,685
Breusch and Pagan LM Test (P-value)	0.000		0.000	
Woodridge Test	0.065		0.065	
VIF (Mean)	1.39		1.39	
Modified Wald test (P-value)	0.000		0.000	
Hausman (P-value)	0.823		0.823	
R-Square	0.060		0.063	
N	362		362	

***, **, * sig. at 1%, 5%, and 10%. We use the robust standard error to solve the problem of heteroscedasticity [28]

the findings of Jabari and Muhamad [14] that the presence of women and the percentage of women on the SSB does not affect the z-score.

4.3 Additional Test

Table 3 shows that the presence of women and the percentage of women on the BOD and SSB does not affect the performance of the board and the performance of the company. This result is inconsistent with RDT and the psychological-economic theory that the presence of women brings unique resources that can improve the decision-making process because board members have unique information and high-quality resources [32]. In addition, SSB has the main task of ensuring the compliance of bank operations with

Table 4. Moderating Regression Analysis.

	Coef.	Robust Std. Err.	Coef.	Robust Std. Err.
GDBOD*GDSSB	–	–	0.225	3.170
GPBOD*GPSSB	1.758*	0.912	–	–
GPBOD	0.350	0.342	–	–
GPSSB	–0.331	0.281	–	–
GDBOD	–	–	2.760	2.177
GDSSB	–	–	–0.779	2.010
BODSIZE	–1.966**	0.885	–1.877**	0.875
SSBSIZE	0.943	1.180	1.191	1.139
NPL	–0.084	0.063	–0.072	0.070
DIVER_INCOM	0.050***	0.010	0.047**	0.010
LOAN	–0.062	0.108	–0.067	0.109
GDP	0.367	0.980	0.272	1.023
INF	–2.169*	1.164	–1.950*	1.130
COUNTRYDUMMY	–10,522	21.858	–11,500	22.103
YEAR DUMMY	0.758	0.470	0.756	0.473
_cons	160,180***	51,607	160,458***	51.751
Breusch and Pagan LM Test (P-value)	0.000		0.000	
Woodridge Test	0.065		0.059	
VIF (Mean)	1.52		4.69	
Modified Wald test (P-value)	0.000		0.000	
Hausman (P-value)	0.859		0.962	
R-Square	0.063		0.060	
N	362		362	

***, **, * sig. at 1%, 5%, and 10%. We use the robust standard error to solve the problem of heteroscedasticity [28]

Shariah [33, 34]. Therefore, the SSB members who have clerical backgrounds and religious experts collaborate with other boards in carrying out its functions. On this basis, we argue that SSB moderates the relationship between BOD and financial soundness.

Table 4 shows the results of moderating regression analysis. The GDBOD*GDSSB moderation test resulted in a coefficient of 0.225, a robust standard error of 3.170, and a p-value of more than 0.10. This test did not find that the presence of women on the SSB did not strengthen the influence of the presence of women on the BOD on financial soundness. The GPBOD*GPSSB moderation test resulted in a coefficient of 0.225, a robust standard error of 3.170, and a p-value of less than 0.10. This test indicates that the

Table 5. 2SLS Estimation.

	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
GPBOD	20.693	19,775	-32.835	38.333	-	-	-	-
GPSSB	-3.384	2.917	5.865	11.784	-	-	-	-
GDSSB	-	-	-	-	3.831	4.710	-3.819	4.589
GDBOD	-	-	-	-	-3.862	4.688	3.745	4.559
BODSIZE	-3.136	8.767	-16.03	25,741	-0.953	11,553	1.110	9.803
SSBSIZE	4.459	12,399	37,122	29,356	14,038	11,595	14,490	11,539
NPL	-2.214	1.702	-3.714	2.512	-2.657	2.167	-3.049	2.042
DIVER_INCOM	-0.200	0.376	-0.583	0.604	-0.442	0.502	-0.413	0.484
LOAN	0.007	1.372	-0.626	2.664	0.553	1.333	0.642	1.245
GDP	-3.047	14,277	-39,910	60,517	44,863	43,640	45,345	43,749
INF	-21,468***	8.181	-28,575*	14,565	-34,547*	19,551	-34,024*	18,827
COUNTRYDUMMY	-68.097*	40,729	-15,761	21,784	-60,336	40,033	-61,956	41,371
YEARDUMMY	-6.785	6.375	-1.241	6.311	7.983	12,550	8.375	12.845
_cons	331,944	272,458	558,850	651,485	-6.520	151,751	-7.794	150,986

***, **, * sig. at 1%, 5%, and 10%. Models 1, 2, 3, and 4 are GPBOD, GPSSB, GDSSB, GDBOD as instrumented variables

percentage of women on the SSB strengthens the relationship between the percentage of women on the BOD and financial soundness.

Table 4 shows that the percentage of women on the SSB strengthens the relationship between the percentage of women on the BOD and financial soundness. This finding indicates that female BOD and SSB coordinate to carry out effective supervision and subsequently have a positive impact on bank performance. SSB as a multi-layer governance in Islamic banks [24], where the knowledge and expertise of SSB members are essential to provide advice and insight needed to support management in providing reliable decisions [35]. Nomran and Haron [36], Nomran et al. [37], and Almutairi and Quttainah [38] have found the role of SSB on bank performance. However, Ajili and Bouri [39] did not find a relationship between the role of SSB in improving bank performance. This difference in results may lead to allegations that SSB is less effective in supervising the performance of directors without being supported by other boards. Abdallah and Bahloul [40] found that SSB collaboration with other boards improves bank performance.

4.4 Endogeneity and Sensitivity Analysis

The problem of endogeneity occurs in corporate financial research [41]. Endogeneity problems lead to biased research results, inconsistent estimates, inaccurate theoretical conclusions, and interpretations [42]. In line with Safiullah [43], we use 2SLS to solve the problem of endogeneity. Safiullah [43] revealed a correlation between corporate governance (CG) structure and company performance. However, the company's performance will cause changes in CG [43].

Following Safiullah [43], we use the CG variables (GPBOD, GPSSB, GDBOD, GDSSB) as the dependent variable on the first stage of regression. The second stage regression uses the estimation method of regression analysis. The results of our 2SLS test are presented in Table 5. The results of the 2SLS estimation test confirm the results in Table 3 that the presence of women and the percentage of women on the BOD and SSB does not affect the financial soundness.

5 Conclusion

This study is to prove the role of BOD and SSB's gender diversity on financial soundness. Gender diversity is measured by the presence of women (dummy) and the percentage of women on the BOD and SSB indicators. This study uses 38 full-flagged Islamic banks in 5 countries in the Southeast. The results showed that the presence of women and the percentage of women on the BOD and SSB did not affect financial soundness. However, the results of the moderation test between the percentage of women on the BOD and the percentage of women on the SSB have a positive effect on financial soundness. These results indicate that the percentage of women as BOD and SSB will improve the quality of supervision and board consultation and can further increase the effectiveness of the outcome board. SSB as multi-layer governance in Islamic banks cooperates with BOD to improve bank strategic decisions' quality and further improve financial soundness.

The results of this study recommend to banks and regulators to increase the number of women on the board of Islamic banks. However, the presence of women should be in the BOD and SSB to streamline the performance of the boards. BOD and SSB have different tasks, so BOD and SSB cooperate and complement each other's duties to improve bank performance.

The limitation of this study is that it only pays attention to the observation period in which there is no crisis. Observations during the crisis period (2007–2009) or the COVID-19 period (2020–2022) are needed to complete the results of this study.

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Abstract	<p>This study aims to determine the mechanism of good corporate governance and political connections to accounting conservatism with company size as the moderating variable: studies on manufacturing companies in Indonesia and Malaysia. The good corporate governance mechanism consists of managerial ownership and the proportion of independent commissioners. The data in this study is secondary data with a sample consisting of the Indonesia Stock Exchange as many as 27 companies and the Malaysia Stock Exchange as many as 26 companies whose sub-sector is food and beverage with an observation period from 2018 to 2021. Sample selection using purposive sampling method. The analytical method used in this study is multiple linear regression with moderated regression analysis (MRA) using E-Views 12. The results of this study indicate that the Indonesian Stock Exchange companies show that good corporate governance and good corporate governance moderated by company size partially have no significant effect on accounting conservatism. Partially, political connections have a negative and significant effect on accounting conservatism and company size partially has a negative and insignificant effect on accounting conservatism and political connections moderated by firm size partially strengthens and significantly influence accounting conservatism. While the Bursa Malaysia company shows that good corporate governance, political connections, good corporate governance moderated by company size and political connections moderated by company size partially have no significant effect on accounting conservatism. While the size of the company partially has a negative and significant effect on accounting conservatism. The advice that researchers can give is that companies can pay more attention to factors that can affect accounting conservatism so that in applying accounting conservatism can bring companies to a better direction.</p>	
Keywords (separated by '-')	Good corporate governance - Political Connections - Company Size - Accounting Conservatism	



Good Corporate Governance and Political Connections to Accounting Conservatism with Company Size as a Moderating Variable: Evidence from Indonesia and Malaysia

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AQ1

Abstract. This study aims to determine the mechanism of good corporate governance and political connections to accounting conservatism with company size as the moderating variable: studies on manufacturing companies in Indonesia and Malaysia. The good corporate governance mechanism consists of managerial ownership and the proportion of independent commissioners. The data in this study is secondary data with a sample consisting of the Indonesia Stock Exchange as many as 27 companies and the Malaysia Stock Exchange as many as 26 companies whose sub-sector is food and beverage with an observation period from 2018 to 2021. Sample selection using purposive sampling method. The analytical method used in this study is multiple linear regression with moderated regression analysis (MRA) using E-Views 12. The results of this study indicate that the Indonesian Stock Exchange companies show that good corporate governance and good corporate governance moderated by company size partially have no significant effect on accounting conservatism. Partially, political connections have a negative and significant effect on accounting conservatism and company size partially has a negative and insignificant effect on accounting conservatism and political connections moderated by firm size partially strengthens and significantly influence accounting conservatism. While the Bursa Malaysia company shows that good corporate governance, political connections, good corporate governance moderated by company size and political connections moderated by company size partially have no significant effect on accounting conservatism. While the size of the company partially has a negative and significant effect on accounting conservatism. The advice that researchers can give is that companies can pay more attention to factors that can affect accounting conservatism so that in applying accounting conservatism can bring companies to a better direction.

AQ2

Keywords: Good corporate governance · Political Connections · Company Size · Accounting Conservatism

1 Introduction

Good company performance begins with investor confidence in the company to be invested in safe conditions and can provide good returns. Weaknesses of bad corporate governance can be seen from the low quality of investment, weak roles and commissioners, weak audit system, lack of transparency, and weak law enforcement which causes the company's performance to not run optimally which can be exemplified by the company taking actions that prioritize the interests and interests of the company. His own welfare with the interests of investors which can cause investors' expectations to fall and withdraw the funds that have been invested in the company. In order to operate in a balanced manner in conditions of intense competition and overcome weaknesses, it is necessary to implement good corporate governance or better known as Good Corporate Governance (GCG).

Companies that have political connections or are related to politics get various benefits to increase the value of the company. The advantages include getting easy access to loans, not too tight supervision which will result in a reduction in the value of taxes owed so that it affects the increase in company profits and can attract investors. This will lead to an increase in fraud in financial reporting. The size of the company is able to affect the value of the company, because the larger the size or scale of the company, the easier it is for the company to obtain internal and external funding sources. From the total assets of the company, the size of the company can be known, so the greater the total assets of the company, the greater the scale of the company.

Go public companies will submit financial statements carefully in disclosing all costs first compared to income, which is called conservatism so that the profits submitted by financial statements on the stock exchange are not actual profits. Therefore, the information provided can raise doubts about the quality of the financial statements that cause errors and possible losses for those who need the financial statements and reduce the value of the company in the eyes of investors. A high company value will make investors interested in investing their shares in the company. Before investing in company shares, investors will look for information obtained from the market so that at the time the company's stock valuation is more convincing.

The researcher took the object of manufacturing companies on the Indonesia Stock Exchange and the Malaysia Stock Exchange because they were an increase in the number of Covid-19 cases in ASEAN countries, thus affecting accounting conservatism. This can be proven in research (Utthavi & Sumiari, 2021) entitled Accounting Conservatism in the Era of the Covid-19 Pandemic. This study aims to determine whether there are differences in accounting conservatism before and during the pandemic which will be measured using two approaches, namely the accrual-based approach and the net asset approach in order to maximize investors' investment decisions. The results showed that there were differences in accounting conservatism before and during the pandemic, both using the accrual approach and the net asset approach.

According to Hamdani (2016), Good Corporate Governance defines the point of view in a narrow sense and a broad sense. First, from a narrow sense point of view, good corporate governance is defined as an equal interaction between shareholders and the company. While in a broad sense, good corporate governance is defined as a network of

relationships, meaning that it is not only a relationship with owners or shareholders, but the company uses other parties such as employees, customers, suppliers, and others.

Based on the research, the structure of good corporate governance consists of managerial ownership according to Effendi (2016) is the number of shares owned by the management of the company who are actively involved in making company decisions and the proportion of independent commissioners according to Effendi (2016) is a commissioner who has no direct or indirect relationship with the majority shareholder of a company that oversees the management of the company. Independent Commissioners have demonstrated their existence as representatives of independent (minority) shareholders, including representing other interests such as investors.

According to Hardianti (2014) political connections are companies that have political connections are companies or conglomerates that have close ties to the government. The criteria for political connections are State-owned Enterprises (SOEs) or Local-owned Enterprises (LOEs) companies listed on the Indonesia Stock Exchange and the Malaysia Stock Exchange, the owner of the company is a politician affiliated with a political party or the owner of the company is a government official. According to Hery (2017) firm size is a measure used to determine company size and can be seen in several ways, including: total assets, stock market value, and others. According to Savitri (2016) the principle of conservatism is a concept that recognizes expenses and liabilities in advance even though there is uncertainty about the outcome, but only recognizes income and assets when it is certain that they will be received. Accounting conservatism is useful to avoid opportunistic behavior of managers related to contracts that use financial statements as a contract medium.

2 Research Methods

This type of research uses quantitative research methods. According to Sugiyono (2017) is a quantitative research method based on the philosophy of positivism that is used to examine certain populations or samples, collect data using research instruments, analyze quantitative or statistical data, with the aim of testing the established hypothesis. The type of data used in this research is secondary data. According to Sugiyono (2017) secondary data is a data source that does not convey data directly to data collectors, such as through other people or documents. The secondary data used comes from books, articles and company reports related to the title of this research.

The data collection technique in this research is to use the documentation method is to take data obtained through documents (Hardani et al., 2020) and the method of Literature Studies is defined as theoretical research, references or other scientific literature related to norms, values, and culture developed in the social context under study (Sugiyono, 2017).

According to Nanang Martono (2015) population is all objects or subjects that are in an area and meet certain requirements related to a research problem. The population of this study is a manufacturing company in the food and beverage sub-sector which is listed on the Indonesia Stock Exchange and the Malaysia Stock Exchange for the 2018–2021 period. According to Sugiyono (2017) sample is part of the number and characteristics of the population. Purposive sampling method according to Sugiyono

(2017) is a sampling technique with certain considerations. After applying purposive sampling with certain criteria, the manufacturing companies on the Indonesia Stock Exchange that meet the criteria as a sample are 27 companies from the 2018–2021 period so that the number of samples is 108 annual financial statements or 108 data, while for manufacturing companies on the Malaysia Exchange that meet the criteria as a sample of 26 companies from the period 2018–2021 so that the number of samples is 104 annual financial statements or 104 data. Data processing is carried out with the help of the Eviews application.

The data analysis technique used panel data regression analysis, classical assumption test, moderated regression analysis (MRA), hypothesis testing, and coefficient of determination. Panel data regression analysis is a combination of time series and cross section data. Panel data regression analysis used is Fixed Effect Model (FEM). Classical assumption test to test the feasibility of the regression model carried out. Classical assumption test used is normality test, multicollinearity test, and heteroscedasticity test. According to Ghozali (2013) Moderated regression analysis (MRA) is an analytical approach that provides the basis for maintaining sample integrity and controlling the influence of moderator variables. Hypothesis testing using the T test. The coefficient of determination (R^2) is used to measure how far the ability of the model formed to apply variations in the dependent variable.

3 Results and Discussion

AQ3 Based on the results of data processing using Eviews, the following results were obtained (Tables 1 and 2).

The normality test is carried out with the aim of evaluating the distribution of data in a group of data or variables to determine whether the data is normally distributed or not. In Fig. 1 it can be concluded that the results of the normality test which after being transformed into logarithmic form in this study are normally distributed because it can be seen from the probability that the result is more than the alpha value of 0.05, which is 0.20221. In Fig. 2 it can be concluded that the results of the normality test which after being transformed into logarithmic form in this study are normally distributed because it can be seen from the probability that the result is more than the alpha value of 0.05, which is 0.075264.

The multicollinearity test was carried out with the aim of testing whether in a regression model there was a high correlation between independent variables. In Tables 3 and 4, the correlation value between independent variables does not exceed 0.80 so it can be concluded that there is no multicollinearity between variables in this study.

The heteroscedasticity test was carried out with the aim of seeing the residual (confounding) variable having a constant variance. A good regression model is if a study does not occur heteroscedasticity. This study uses the glejser test to see whether there is heteroscedasticity. In the glejser test, the probability level is 0.05. If the probability value is greater than the predetermined probability level of 0.05, it can be concluded that there is no heteroscedasticity. In Tables 5 and 6 the probability value of each of these variables shows the probability value is greater than 0.05 so it can be concluded that there is no heteroscedasticity in this study.

Table 1. Panel Data Regression Test on Indonesian Stock Exchange Companies

Variable		Coefficient	Std Error	t-statistic	Prob
C		1.180037	0.922664	1.278945	0.2048
Managerial ownership		0.763179	0.708324	1.077443	0.2846
Independent Commissioner		-0.469278	0.334077	-1.404703	0.1641
Political Connection		-0.084978	0.020296	-4.186897	0.0001
Company Size		-0.039996	0.038961	-1.026575	0.3078
Effect Specification					
R-Squared	0.474084	Mean Dep Var		-0.006178	
Adjusted R-Squared	0.269182	S.D Dep Var		0.119507	
S.E of Regression	0.102164	Akaike info criterion		-1.488728	
Sum squared Resid	0.803685	schwarz criterion		-0.718857	
Log Likelihood	111.3913	hannan-quinn criter		-1.176574	
F-Statistic	2.313709				
Prob (F-Statistic)	0.001717				

Source: Processed data on EViews 12

Table 2. Panel Data Regression Test on Malaysian Stock Exchange Companies

Variable		Coefficient	Std Error	t-statistic	Prob
C		4.733245	1.102258	1.102258	4.2941
Managerial ownership		-0.486922	0.203340	-2.394615	0.0192
Independent Commissioner		-0.187942	0.162928	-1.153531	0.2524
Political Connection		-0.012241	0.017535	-0.698582	0.4870
Company Size		-0.281760	0.067944	-4.146922	0.0001
Effect Specification					
R-Squared	0.435661	Mean Dep Var		0.006212	
Adjusted R-Squared	0.214501	S.D Dep Var		0.080280	
S.E of Regression	0.071150	Akaike info criterion		-2.211443	
Sum squared Resid	0.374616	schwarz criterion		-1.448638	
Log Likelihood	144.9950	hannan-quinn criter		-1.902408	
F-Statistic	1.969890	Durbin Watson stat		2.853866	
Prob (F-Statistic)	0.010314				

From Table 7 the results of the regression equation above can be described the multiple linear regression equation (MRA) as follows:

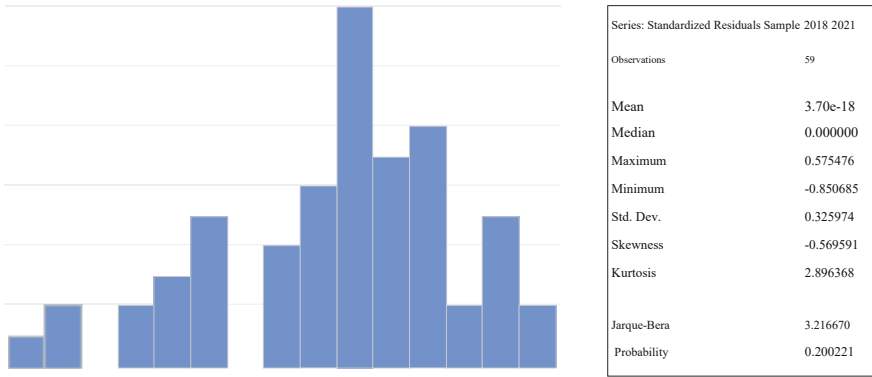


Fig. 1. Normality Test for Indonesian Stock Exchange Companies. Source: Processed data on EViews 12

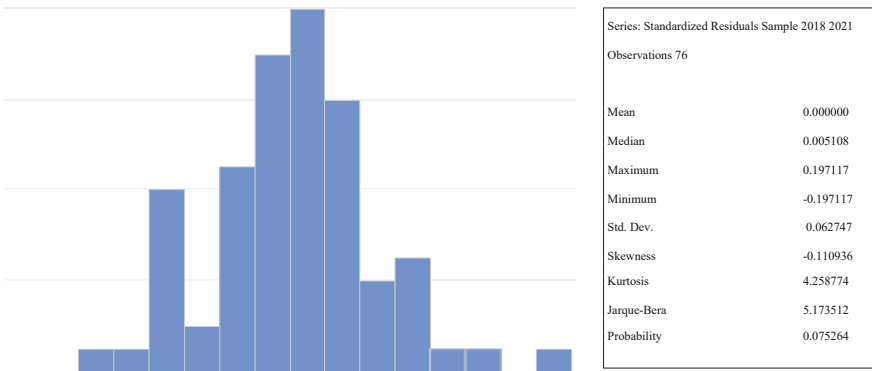


Fig. 2. Normality Test for Malaysian Stock Exchange Companies. Source: Processed data on EViews 12

Table 3. Multicollinearity Test on Indonesian Stock Exchange Companies

	MO	IC	PC	CS
Managerial ownership	1.000	0.294	-0.170	-0.005
Independent Commissioner	0.294	1.000	-1.154	-0.119
Political Connection	-0.170	0.073	1.000	-0.266
Company Size	-0.005	-0.119	-0.266	1.000

Source: Processed data on EViews 12

1. The constant value obtained is 2.684419 which means that if the independent variable is zero, then the amount of accounting conservatism is 2.684419 and vice versa.

Table 4. Multicollinearity Test on Malaysian Stock Exchange Companies

	MO	IC	PC	CS
Managerial ownership	1.000	0.162	-0.332	-0.321
Independent Commissioner	-0.162	1.000	-0.116	-0.187
Political Connection	-0.332	-0.116	1.000	-0.081
Company Size	0.321	-0.187	-0.081	1.000

Source: Processed data on EViews 12

Table 5. Heteroscedasticity Test on Indonesian Stock Exchange Companies

Variable		Coefficient	Std Error	t-statistic	Prob
C		1.18004	0.92266	1.27895	0.20480
Managerial ownership		0.76317	0.76318	0.70832	1.07744
Independent Commissioner		-0.46928	0.33408	-1.40470	0.16410
Political Connection		-0.01224	-0.08498	0.02030	-4.18690
Company Size		-0.28176	-0.04000	0.03896	-1.02658
Effect Specification					
R-Squared	0.47408	Mean Dep Var		-0.00618	
Adjusted R-Squared	0.26918	S.D Dep Var		0.08028	
S.E of Regression	0.10216	Akaike info criterion		-2.21144	
Sum squared Resid	0.80368	schwarz criterion		-1.44863	
Log Likelihood	111.391	hannan-quinn criter		-1.90240	
F-Statistic	2.31370	Durbin Watson stat		2.56483	
Prob (F-Statistic)	0.00171				

Source: Processed data on EViews 12

2. The regression coefficient of managerial ownership is -1.315846 is negative, this means that every increase in managerial ownership will decrease accounting conservatism by -1.315846 and vice versa.
3. The regression coefficient value of the proportion of independent commissioners is -0.864858 is negative, this means that any increase in the proportion of independent commissioners will reduce accounting conservatism by -0.864858 and vice versa.
4. The value of the political connection regression coefficient of -0.468829 is negative, this means that every increase in political connections will decrease accounting conservatism by -0.468829 and vice versa.
5. The value of the company size regression coefficient of -0.103136 is negative, this means that every increase in company size will decrease accounting conservatism by -0.103136 and vice versa.

Table 6. Heteroscedasticity Test on Malaysian Stock Exchange Companies

Variable		Coefficient	Std Error	t-statistic	Prob
C		4.7332	1.1023	4.2941	0.0001
Managerial ownership		0.7631	-0.4869	0.2033	-2.3946
Independent Commissioner		-0.1879	0.1629	-1.1535	0.2524
Political Connection		-0.0122	-0.0122	0.0175	-0.6986
Company Size		-0.2817	-0.2818	0.0679	-4.1469
Effect Specification					
R-Squared	0.4357	Mean Dep Var		0.0062	
Adjusted R-Squared	0.2145	S.D Dep Var		0.0803	
S.E of Regression	0.0712	Akaike info criterion		-2.2114	
Sum squared Resid	0.3746	schwarz criterion		-1.4486	
Log Likelihood	144.9950	hannan-quinn criter		-1.902	
F-Statistic	1.9699	Durbin Watson stat		2.8539	
Prob (F-Statistic)	0.0103				

Source: Processed data on EViews 12

6. The regression coefficient value of managerial ownership * firm size which is the interaction of managerial ownership with firm size of 0.131275 is positive, this means that any increase in managerial ownership * firm size will increase accounting conservatism by 0.131275 and vice versa.
7. The regression coefficient value of the proportion of independent commissioners * company size which is the interaction of the proportion of independent commissioners with company size of 0.004798 is positive, this means that any increase in the proportion of independent commissioners * company size will increase accounting conservatism by 0.004798 and vice versa.
8. The value of the political connection regression coefficient * company size which is the interaction of political connections with company size of 0.021079 is positive, this means that every increase in political connections * company size will increase accounting conservatism by 0.021079 and vice versa.

AQS Based on Table 8, good corporate governance in this study consists of two mechanisms, namely managerial ownership and the proportion of independent commissioners. For the t-count value of managerial ownership (X1) of -0.497108, it is smaller than the t-table value of 1.65978. The probability value of 0.6206 is greater than 0.05, meaning that this variable partially has no significant effect on the dependent variable. Meanwhile, the t-count value of the proportion of independent commissioners (X2) is -0.727953 which is smaller than the t-table value of 1.65978. The probability value of 0.4689 is greater than 0.05, meaning that this variable partially has no significant effect on the dependent variable. So that the first hypothesis (H1) in this study is rejected as the second variable Good corporate governance has no significant effect on accounting conservatism.

Table 7. Analysis of Multiple Linear Regression (MRA) in Indonesian Stock Exchange Companies

Variable		Coefficient	Std Error	t-statistic	Prob
C		2.684419	1.327451	2.022236	0.0468
Managerial ownership		-1.315846	2.647	-0.497108	0.6206
Independent Commissioner		-0.864858	1.188068	-0.727953	0.4689
Political Connection		-0.468829	0.097483	-4.80933	0.0000
Company Size		-0.103136	0.056726	-1.818137	0.0731
MO*CS		0.131275	0.129676	1.012334	0.3147
IC*CS		0.004798	0.050086	0.095801	0.9239
PC*CS		0.021079	0.005191	4.060765	0.0001

Effect Specification

R-Squared	0.5753	Mean Dep Var	-0.0062
Adjusted R-Squared	0.3859	S.D Dep Var	0.1195
S.E of Regression	0.0936	Akaike info criterion	-1.6470
Sum squared Resid	0.6490	schwarz criterion	-0.8026
Log Likelihood	122.9363	hannan-quinn criter	-1.3046
F-Statistic	3.0378	Durbin Watson stat	2.5963
Prob (F-Statistic)	0.0000		

Source: Processed data on EViews 12

Table 8. Partial Test (T Test) on Indonesian Stock Exchange Companies

Variable	Coefficient	Std Error	t-statistic	Prob
C	2.6844	1.3275	2.0222	0.0468
Managerial ownership	-1.3158	2.6470	-0.4971	0.6206
Independent Commissioner	-0.8649	1.1881	-0.7280	0.4689
Political Connection	-0.4688	0.0975	-4.8093	0.0000
Company Size	-0.1031	0.0567	-1.8181	0.0731
MO*CS	0.1313	0.1297	1.0123	0.3147
IC*CS	0.0048	0.0501	0.0958	0.9239
PC*CS	0.0211	0.0052	4.0608	0.0001

Source: Processed data on EViews 12

The t-count value of political ties (X3) is -4.809330, which is higher than the t-table value of 1.65978. The probability value of 0.0000 is less than 0.05, indicating that this variable has a partially significant effect on the dependent variable, supporting the second hypothesis (H2) in this study, which states that the political connection variable has a

negative and significant effect on accounting conservatism. Meanwhile, the t-count of company size (Z) is -1.818137 which is greater than the t-table value of 1.65978 . The probability value of 0.0731 is greater than 0.05 , which means that this variable partially has no significant effect on the dependent variable so that the third hypothesis (h3) in this study is rejected, meaning that the firm size variable has no significant effect on accounting conservatism.

Good corporate governance in this study consists of two mechanisms, namely managerial ownership and the proportion of independent commissioners. So that the moderated t-value of managerial ownership is 1.012334 , which is smaller than the t-table value of 1.65978 . The probability value of 0.3147 is greater than 0.05 , which means that this variable partially has no significant effect on the dependent variable. Meanwhile, the t-count value of the proportion of independent commissioners moderated by company size is 0.095801 which is smaller than the t-table value of 1.65978 . The probability value of 0.9239 is greater than 0.05 , which means that this variable partially has no significant effect on the dependent variable. So that the fourth hypothesis (H4) in this study is rejected, meaning that the two good corporate governance variables have no significant effect on accounting conservatism by moderating firm size.

Furthermore, the t-count value of political connections moderated by company size is 4.060765 which is greater than the t-table value of 1.65978 . The probability value of 0.0001 is smaller than 0.05 , which means that this variable partially strengthens the significant effect on the dependent variable, so that the fifth hypothesis in this study is accepted, meaning that the political connection variable has a significant and significant effect on accounting conservatism by moderating firm size.

4 Closing

4.1 Conclusion

Based on the results of the analysis of the discussion carried out, it was concluded that the Indonesia Stock Exchange company:

1. Good corporate governance in this study consists of two mechanisms, namely managerial ownership and the proportion of independent commissioners has no significant effect on accounting conservatism. Because managerial ownership, the t-count value of -0.497108 is smaller than the t-table value of 1.65978 and the probability value of 0.6206 is greater than 0.05 and the proportion of independent commissioners t-count value is -0.727953 more smaller than the t-table value of 1.65978 and the probability value of 0.4689 is greater than 0.05 .
2. Political connection has a negative and significant effect on accounting conservatism. Because the t-count value of -4.809330 is greater than the t-table value of 1.65978 and the probability value of 0.0000 is smaller than 0.05 .
3. Company size has a negative and significant effect on accounting conservatism. Because the t-count value of -1.818137 is greater than the t-table value of 1.65978 and the probability value of 0.0731 is greater than 0.05 .

4. Good corporate governance in this study consists of two mechanisms, namely managerial ownership and the proportion of independent commissioners has no significant effect on accounting conservatism by moderating firm size. Because managerial ownership, the t-count value of 1.012334 is smaller than the t-table value of 1.65978 and the probability value of 0.3147 is greater than 0.05 and the proportion of independent commissioners moderated by firm size has no effect on accounting conservatism because the t-value-count of 0.095801 is smaller than the t-table value of 1.65978 and the probability value of 0.9239 is greater than 0.05.
5. Political connection strengthens and significantly influences accounting conservatism by moderating firm size. Because the t-count value of 4.060765 is greater than the t-table value of 1.65978 and the probability value of 0.0001 is smaller than 0.05.

Meanwhile, based on the results of the analysis of the discussion carried out, it was concluded that the Bursa Malaysia company:

1. Good corporate governance in this study consists of two mechanisms, namely managerial ownership and the proportion of independent commissioners has no significant effect on accounting conservatism. Because managerial ownership, the t-count value of -0.736806 is smaller than the t-table value of 1.66039 and the probability value of 0.4637 is greater than 0.05 and the proportion of independent commissioners the t-count value is -1.635062 more smaller than the t-table value of 1.66039 and the probability value of 0.1065 greater than 0.05.
2. Political connection has no significant effect on accounting conservatism. Because the t-count value of 0.989655 is smaller than the t-table value of 1.66039 and the probability value of 0.3257 is greater than 0.05.
3. Company size has a negative and significant effect on accounting conservatism. Because the t-count value of -4.201557 is greater than the t-table value of 1.66039 and the probability value of 0.0001 is smaller than 0.05.
4. Good corporate governance in this study consists of two mechanisms, namely managerial ownership and the proportion of independent commissioners has no significant effect on accounting conservatism by moderating firm size. Because managerial ownership, the t-count value of 0.353743 is smaller than the t-table value of 1.66039 and the probability value of 0.7246 is greater than 0.05 and the proportion of independent commissioners is moderated by firm size has no effect on accounting conservatism because the t-value-calculated 1.584628 which is smaller than the t-table value of 1.66039 and the probability value of 0.1175 is greater than 0.05.
5. Political connection has no significant effect on accounting conservatism by moderating firm size. Because the t-count value of -1.158536 is smaller than the t-table value of 1.66039 and the probability value of 0.2505 is greater than 0.05.

4.2 Suggestion

The next researcher wants to conduct research on the factors that influence the selection of accounting conservatism, it is suggested to extend the research period and develop a wider sector and develop other independent variables not examined in this study such as

company growth. The advice for companies that researchers can give is that companies can pay more attention to factors that can affect accounting conservatism so that in applying accounting conservatism can bring companies to a better direction. In addition, researchers hope that the results of this study can be used as company decisions in order to choose the appropriate accounting conservatism so that it can generate maximum profits.

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Chapter 15

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Abstract

This paper aims to provide an understanding of the suitability of environmental disclosure practices on social media with the one on corporate sustainability reports based on the concept of narcissistic accounting. This study applied quantitative methods using the Wilcoxon and Mann-Whitney tests to evaluate the hypothesis. The findings of the study indicate that the environmental disclosure of companies in Indonesia through Instagram is still in its early stages. The environmental disclosure in corporates' sustainability reports with narcissistic and non-narcissistic leaders are different while the environmental disclosure on social media for companies with narcissistic and non-narcissistic leaders are not different. This study provides practical implications for stakeholders, especially for the public who use CSR data, regarding environmental disclosure for various interests and decision making, in addition to providing insight for management in the realm of strategic management to disclose CSR activities, especially environmental disclosure on social media. This study is also beneficial from a scientific point of view regarding the disclosure of the corporate environment associated with the concept of narcissistic accounting.

Keywords

(separated by '-')

social media - environmental disclosure - narcissistic accounting



Comparison of Environmental Disclosure on Social Media and Sustainability Report (CEO Narcissism Perspective)

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[AQ1](#)

Abstract. This paper aims to provide an understanding of the suitability of environmental disclosure practices on social media with the one on corporate sustainability reports based on the concept of narcissistic accounting. This study applied quantitative methods using the Wilcoxon and Mann-Whitney tests to evaluate the hypothesis. The findings of the study indicate that the environmental disclosure of companies in Indonesia through Instagram is still in its early stages. The environmental disclosure in corporates' sustainability reports with narcissistic and non-narcissistic leaders are different while the environmental disclosure on social media for companies with narcissistic and non-narcissistic leaders are not different. This study provides practical implications for stakeholders, especially for the public who use CSR data, regarding environmental disclosure for various interests and decision making, in addition to providing insight for management in the realm of strategic management to disclose CSR activities, especially environmental disclosure on social media. This study is also beneficial from a scientific point of view regarding the disclosure of the corporate environment associated with the concept of narcissistic accounting.

[AQ2](#)

Keywords: social media · environmental disclosure · narcissistic accounting

1 Introduction

Society 5.0 (S5.0) emerged as a new paradigm in the development of information technology today that puts humans at the center of innovation (Bartoloni et al., 2022). The development of S5.0 is marked by the presence of social media that changes conventional communication systems into digital (Giacomini et al., 2020). The most popular digital communication system in the world today is social media. Datareportal (2021) reported that about 4.33 billion social media users in the world are equivalent to 55% of the total world population.

From the perspective of accounting, the annual report is one form of communication between agents and their stakeholders (Freeman & David, 1983). Meanwhile, information disclosure is the most important part of the organization's annual reporting which is

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often used by investors as the basis for investment decision-making (Miller & Skinner, 2015). Both studies imply that the disclosure of information in the company's annual report is an essential part of the communication system between the company and the investors. In this case, social media can be used as a medium of communication through the publication of all information about business activities. Blankespoor et al. (2014) revealed that social media is potential to support the comprehensiveness of company information in traditional annual reports. Other studies show that social media is the next milestone for companies to report and disclose the condition of the company (Bon-són & Flores, 2011; Jung et al., 2018). In addition, social media allows the delivery of information in a much broader coverage and punctuality, and dialogue between the two parties so that it can minimize asymmetrical information (Bebbington et al., 2007; Ho & Taylor, 2013; Zhong & Gao, 2017; Bellucci & Manetti, 2017; Jung et al., 2018; Amin et al., 2021).

One of the voluntary information disclosures that has a major impact on the company is the activity of Corporate Social Responsibility (CSR). Previous studies stated that CSR disclosure in the annual report has a significant influence on investment decision-making quality (Cuong & Ly, 2017) and the reputation of the company (Mahmood & Bashir, 2020). In addition, CSR is a form of ethical behavior of corporate leaders in doing business (Rossouw, 2009). Globally, social media is believed to be the most relevant media to obtain information about CSR activities (Ali et al., 2015; Gupta et al., 2021). This indicates that voluntary disclosure of CSR through social media has been proofed to stimulate investor confidence.

Previous studies have shown that in practice, community involvement in social and environmental accounting practices is still relatively small (Russell et al., 2017). This resulted in community supervision related to environmental awareness activities still relatively lacking. Therefore, many investors are incredibly interested in companies that express CSR in the field of environmental awareness through social media, because it is considered an advantage that the company has (Khlifi, 2021; Nuseir & Qasim, 2021). In addition, suggestions and critiques from social media users related to CSR activities concerning environmental awareness become the main concern of investors to assess organizational performance (Ali et al., 2015). Thus, the existence of social media has facilitated the investors to assess the quality of organizational performance.

Interestingly, in the case of Indonesia, investors' direct supervision of the company's activities through social media has stimulated the narcissism of corporate leaders in revealing CSR activities concerning environmental awareness. Leadership narcissism is identified with the publication of photos or videos of environmental awareness activities by corporate leaders on social media. The results of exploration of some of the literature show that Indonesia has the third highest social media growth in the world marked by 174 million users (We Are Social.com, 2020 accessed on 15 October 2021). Data from the Indonesia Stock Exchange (IDX) shows that 70% of stock investors use social media to access information about business activities of the companies listed in IDX. However, the Research Centre for Governance of the University of Indonesia, and the Organizations National University of Singapore reported that the disclosure of CSR concerning the environment in Indonesia tends to be low and there is a misuse of CSR funds for the internal interests of the company (CNN Indonesia, 2016, accessed 20 October 2021).

In addition, the Financial Services Authority of the Republic of Indonesia reported that CSR disclosure through stand-alone sustainability reports is still relatively low (OJK, 2017). The question is “does leadership narcissism in CSR disclosure concerning the environmental awareness provide benefits to improve organizational performance?”.

To this point, research on leadership narcissism in the context of accounting is still infrequently discussed in previous studies, but knowledge about the narcissistic attitude of leaders in the context of corporate sustainability is something that should be observed considering that it has impacts on company performance (Wales et al., 2013; Solihin & Mapuasari, 2019; Gruda et al., 2021). Research on leadership narcissism was started by Chatterjee & Hambrick (2007) which analyzes the impact of narcissistic CEO on his company’s investment strategy which tends to be high risk. Then similar research was conducted by (Johnson et al., 2013; Judd et al., 2017) which investigated narcissism in auditing as the auditor’s response to a narcissistic CEO. With a background in Indonesia, this study aims to explore the impact of leadership narcissism on social media in revealing CSR activities in the field of environmental awareness on company performance. The impact of the use of social media for the utilization of CSR disclosure of environmental awareness in the community requires in-depth analysis related to environmental disclosure (Giacomini et al., 2020).

2 Theoretical Foundation

2.1 Narcissistic Accounting

Human beings’ character is to love themselves so they tend to only see the good in themselves, sometimes even exaggeration in loving themselves until bad characters is seen as good (Al-Jauziyah & Murtadlo, 2011). This character is known as narcissism, which can be used as a study from various disciplines and points of view. The theme of narcissism initially tended to be carried out for research in Psychology and Management, more specifically on the focus of leadership (Maccoby, 2004). Within the discipline of Accounting, narcissism began to be studied, in the sub-field of Financial Accounting Science resulting in the conclusion that narcissistic CEOs tend to be more aggressive in terms of financial reporting (Johnson et al., 2013; Judd et al., 2017). Narcissistic CEOs tend to have courage when it comes to risk-taking (Chatterjee & Hambrick, 2007), fast decision-making (She et al., 2020), and always try to show good financial statements (Amernic & Craig, 2010). In addition, the narcissism of the leadership has a positive influence on the performance of the company (Wales et al., 2013). At the same time, a company led by a narcissistic leader tends to be easier to get funding (Gruda et al., 2021).

CSR disclosure, especially environmental disclosure that can be seen from the annual report, stand-alone sustainability report, or social media becomes interesting when it is viewed from the side of leadership narcissism. A positive image of the company can be formed from the disclosure of the words displayed in the sustainability report company. In a sustainability report, narrative texts that include discussions, management analysis, and remarks of directors and commissioners can form a positive image of the company and avoid a negative image to build public trust (Chariri & Nugroho, 2009). The attitude of avoiding bad images or forming a good image is an attitude that tends to be narcissistic.

Concerning CSR activities and reporting, previous research has shown that narcissistic CEOs positively influence CSR (Bouzouitina et al., 2021).

CEO is an important part of strategic decisions so that the company's performance both from the financial and non-financial side is determined by top management (Shahab et al., 2019). The basics of strategic decision-making by the CEO depend on psychological, and cognitive, experience, and also the values held by the CEO. This theory can be a solution to the problems that arise and are presented in the phenomenon where CSR disclosure, especially environmental disclosure on social media, is not solely to bring up the narcissism of the leaders.

In this study, the strategic decision in question is related to environmental disclosure both on social media and traditional media in which a big share of the CEO exists in each decision made. The study of the relationship between environmental social responsibility and leadership has attracted much attention lately (Zhao et al., 2022). The narcissistic accounting perspective was used in this study to find out how environmental disclosure decisions are affected by the narcissism of CEOs. This narcissistic attitude has a strong need for the assertiveness of others for the superiority they have (Chatterjee & Hambrick, 2011). It is hoped that the stakeholders will give a good response so that the survival of the company will be maintained.

Furthermore, narcissism can be measured by five indicators of narcissism (Chatterjee & Hambrick, 2007) where this indicator is used in many studies such as Chatterjee & Hambrick (2011), Patel & Cooper (2014), an indicator varied by Olsen et al. (2014), (Zhu & Chen, 2015; Zhu & Chen, 2014; Oesterle et al., 2016; Olsen & Stekelberg, 2016; Aktas et al., 2016; Buyl et al., 2017; Judd et al., 2017; Kashmiri et al., 2017; Capalbo et al., 2018; Marquez-Illescas et al., 2019; Jasman & Murwaningsari, 2018; Tang et al., 2018; dan Al-Shammari et al., 2019). Chatterjee & Hambrick (2007) suggests that a narcissistic CEO will be very concerned about his visibility in the company's reports.

The next measurement is with 15 indicators of Rijsenbilt narcissism (2011) where these measurements are used in research (Rijsenbilt & Commandeur, 2013; Buyl et al., 2017; Bucholz et al., 2018) as well as modified by Jasman & Murwaningsari (2018). Further measurement is using LinkedIn by Aabo & Eriksen (2018) which of these measurements are used in research by Aabo & Eriksen (2018). Lastly, CEO narcissism is measured by the size of the signature. This measurement is used by Ham et al. (2017, 2018).

One part of corporate governance is the mechanism that rules management functions and supervisory functions. Indonesia is a country that adheres to the system two-tier board in which there is a separation of duties, functions, and authority between the management board and the supervisory board. In this study, the head of the company under study is the management board, because this management board is in direct contact with the company's policy practices including environmental disclosure policies implemented by the company.

2.2 Environmental Disclosure on Social Media

Accounting is a non-static practice that is formed based on social interaction between individuals and their environment (Chariri, 2006). Acting as part of the accounting realm, CSR reporting is a dynamic practice and has links with aspects of social dynamics (Hines,

1988). Viewpoints of social construction as claimed by (Hines, 1988) argued that the practice of financial reporting is not only focused on the presentation of quantitative information but also presents other information such as graphs, narrative texts, tables, and photographs (Snowden, 2002). Research shows that investors react more strongly to negative text than positive text, requiring further analysis of the report in the form of text. Moreover, additional evidence shows that the text of the analyst report will be more valuable if it emphasizes non-financial topics (Huang et al., 2014). One of the non-financial reporting is CSR reporting including the disclosure of the company's environment.

In a sustainability report, narrative texts that include discussions, management analysis, and remarks of directors and commissioners can form a positive image of the company and avoid a negative image to build public trust (Chariri & Nugroho, 2009). This belief will affect a person's desire to carry out what is directed by the trigger of the belief. In addition, CSR disclosure is directly taken into consideration by the investors in terms of investment decision-making (Brown-Liburd et al., 2018; Rokhayati et al., 2019). On the other hand, environmental disclosures have a negative impact on the response of investors (Meng & Zhang, 2022). Therefore, broadly speaking, it is concluded that CSR reporting, especially regarding environmental information, has a very important role in building trust with stakeholders. Furthermore, environmental disclosure will trigger the company to implement green innovation which is a solution to corporate sustainability in dealing with environmental problems (Ren et al., 2022).

High social media access makes companies need to adjust to report CSR activities, especially regarding the environment on social media because social media is a reliable tool to obtain CSR information (Ali et al., 2015; Gupta et al., 2021). Awareness of the importance of such reporting is expected to lead to initiatives among companies to implement environmental reporting through traditional media and social media are increasingly being accessed by the public.

2.3 Social and Environmental Responsibility Reporting Disclosure Index

Companies can use the media as a means of communication with their stakeholders (media exposure), including in the disclosure of CSR that has been conducted. Media that is currently popular and commonly used by companies today are internet/web companies as well as social media such as Instagram, Facebook, Twitter, and others.

The activity of CSR reported by the company is a form of transparency to stakeholders and of course, the reporting must be standardized so that the information can be more comprehensive. Sustainability reporting guidelines (sustainability reports) are created by The Global Reporting Initiative (GRI) so that CSR reporting becomes more targeted. The latest GRI standard becomes the main reference for sustainability reporting in various countries, including Indonesia. However, no legal guideline is used in presenting CSR reports so the form of reports is still very varied (Anggraeni & Djakman, 2018). In addition, it was found that there is still a gap between the information needed by stakeholders with the information presented by the company (Gunawan, 2015).

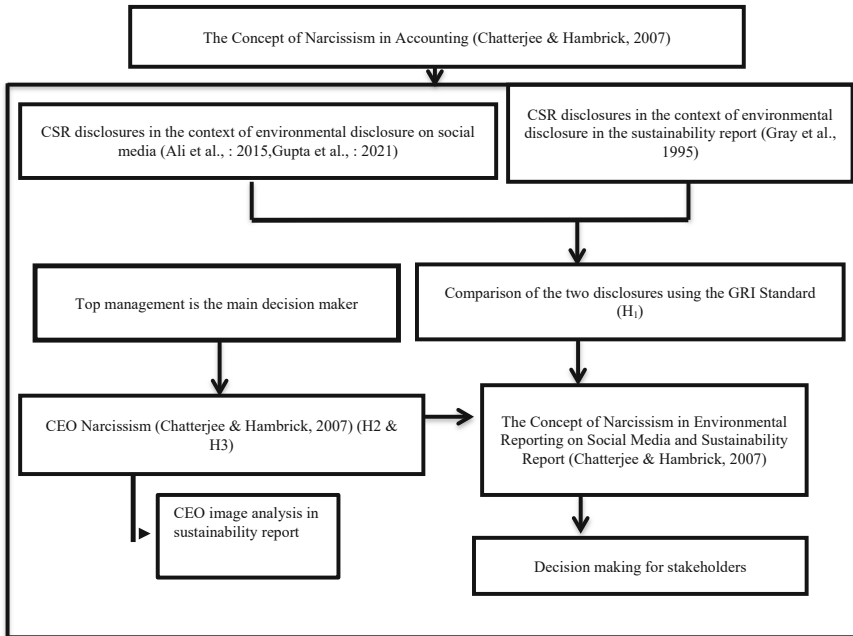


Fig. 1. Research Framework

2.4 Hypothesis

Based on the previous statements, the hypothesis can be drawn as follows:

H₁: There is a difference between environmental disclosure on social media and sustainability report companies registered on the IDX.

H₂: There is a difference between environmental disclosure on sustainability report companies led by narcissistic and non-narcissistic leaders.

H₃: There is a difference between environmental disclosure on corporate social media led by narcissistic and non-narcissistic leaders.

2.5 Research Framework

[AQ4](#) In this study, the research framework is described as follows (Fig. 1).

Stakeholders need various data that can support their investment decisions, one of which is information about CSR activities carried out by the company. Lately, CSR activities and disclosures have become a trending topic related to the increasing concern of investors on matters of a non-financial nature. The company is considered more attractive if it is susceptible to the natural and social environment because it is considered to have good management capabilities towards the entity and not only carries aspects of profit only.

Today, the internet is used massively for various purposes, including reporting the company's activities. More specifically, social media, which is increasingly used by

various circles and interests including parties interested in the company, offers various useful features for reporting the company activities. Companies can use this social media to display activities that can create a positive image, one of which is CSR activities. However, the reporting of CSR activities will lead to misleading information if it is not confirmed. Thus, evidence is required to show that the reporting of CSR activities on social media is an activity that is carried out by the company (Ramananda & Atahau, 2020), not solely to bring up a positive image that leads to narcissistic accounting.

Previous research stated that the ability of the CEO can affect the CSR activities carried out by the company (Yuan et al., 2019). In addition, narcissistic CEOs have a positive effect on CSR (Bouzouitina et al., 2021) so it is also important to know that the emergence of narcissistic CSR reporting is seen from the point of view of CEO narcissism. It is expected that a thorough knowledge of narcissistic accounting will be obtained for the reporting of corporate CSR activities in various media along with matters related to narcissism in the company.

3 Methodology

This research was conducted using quantitative methods (Creswell, 2014) with the paradigm of positivism. This method is suitable for analyzing the issues and intensity of CSR disclosure which is a problem in the social field (Zainal, 2017). The data required from this study is the secondary data that was uploaded on Instagram, and stand-alone sustainability reports from companies registered in IDX.

This study involved fifty companies registered in IDX, which have official Instagram accounts with the most followers. Instagram was chosen because it currently has the largest visual platform compared to other social media platforms and has more than one billion active users per month (We Are Social.com, 2020). This allows the company to display its CSR disclosures, especially regarding environmental disclosures, with visuals that support and attract investors to give positive responses. This study will examine fifty companies listed in IDX with the sustainability report that is separated from the annual report.

3.1 Data Analysis Methods

This study used content analysis as a data analysis technique. The main data source is the content uploaded by the company on its official Instagram account (Mayring, 2000). The standard used is the GRI standard. The positive image of CSR disclosure through social media is expected to attract investors, but it should be noticed that the content of CSR disclosure on social media is an activity that is carried out by the company, not just to accommodate the narcissism of the company.

The first step in the implementation of this study is to determine the 50 companies listed in the IDX with the most Instagram followers and publish sustainability reports. Then an analysis of the official Instagram account posts on its CSR disclosure based on GRI Standards was carried out. The content of the photos on the company's Instagram account was analyzed based on GRI Standards and then described how the company reflects GRI Standards for environmental disclosure content in its Instagram account.

Table 1. Statistic Test – *Wilcoxon Test*

Test Statistics ^b	Sos - SR
Z	-6.097 ^a
Asymp. Sig. (2-tailed)	0.000

Note(s): a. Based on positive ranks; b. Wilcoxon Signed Ranks Test

After that, a score of environmental disclosure posts that comply with GRI Standards was calculated. The same thing was applied to the sustainability report until the disclosure score calculation was performed. To reduce bias in the process of scoring, an assessment was carried out with other parties who have adequate knowledge of GRI standards and environmental disclosures so that the scores obtained are considered valid. Finally, the score was compared between disclosure on social media with sustainability report.

The narcissism analysis of the company leaders is carried out in various ways (Chatterjee & Hambrick, 2007). First, analyze the photos in the sustainability report, then group them based on the four types of photos: 1) four points are given if the CEO's photo occupies more than half a page; 2) three points are given if the photo consists of the CEO himself and less than half a page; 3) two points are given if the CEO is photographed with one or more co-executives; 4) point one is given if the CEO does not display his photo in the sustainability report. Four-point indicates a high level of narcissism from the leader of the company and will be associated with exposure to the level of narcissism in the sustainability report implemented. Assessment is based on existing photos on the sustainability report. This is used as a measure of the level of narcissism of the company leaders because the focus of size in this study is the content of photos, both on social media or in sustainability reports.

Furthermore, to answer the hypothesis, then statistical difference test with the Wilcoxon test was carried out. In addition, descriptive presentation of CSR disclosure on social media and sustainability reports associated with the CEOs' narcissistic behavior can also answer the hypothesis.

After the measures in each variable were determined, then a descriptive analysis of each variable was carried out to identify its relationship. Furthermore, to answer the hypothesis, then statistical difference test with the Wilcoxon and Mann-Whitney tests was carried out.

4 Test Result Data

Based on the data obtained from the sustainability report and social media, the Wilcoxon test will then be carried out as follows:

Based on Table 1, the Z value obtained is -6.097 with a p value of 0.000 and a critical limit of 0.05 so it can be decided that the H₁ hypothesis is accepted, namely there is a difference between environmental disclosure in sustainability reports and social media.

Tests on the comparison of environmental disclosures in sustainability reports for companies led by narcissistic CEOs are carried out using the Mann-Whitney test as follows:

Table 2. Mann Whitney Test Results Data - *Sustainability Report*

Test Statistics ^b	SR
Mann-Whitney U	80.000
Wilcoxon W	125.000
Z	-2.647
Asymp. Sig. (2-tailed)	0.008
Exact Sig. [2*(1-tailed Sig.)]	0.007 ^a

Note(s): a. Not corrected for ties; b. Grouping Variable: CEO

Table 3. Results of the Mann Whitney Test for Social Media Data

Test Statistics ^b	SOS
Mann-Whitney U	155.000
Wilcoxon W	200.000
Z	-0.885
Asymp. Sig. (2-tailed)	0.376
Exact Sig. [2*(1-tailed Sig.)]	0.471 ^a

Note(s): a. Not corrected for ties; b. Grouping Variable: CEO

Based on Table 2, the Z value is -2.647 with a p value of 0.007 and a critical limit of 0.05, it can be concluded that H_2 is accepted, that there are differences in environmental disclosure in sustainability reports for companies led by narcissistic and non-narcissistic CEOs. Furthermore, for disclosure on social media, the following results are obtained (Table 3).

Z value of -0.885 with a p value of 0.471 and a critical limit of 0.05, it can be concluded that H_3 is rejected, meaning that there is no difference in environmental disclosure on social media for companies led by narcissistic and non-narcissistic CEOs.

5 Discussion

Referring to the theory of narcissism (Chatterjee & Hambrick, 2007), in accounting, narcissism began to be studied in the sub-field of Financial Accounting Science resulting in the conclusion that narcissistic CEOs tend to be more aggressive in financial reporting (Johnson et al., 2013), fast in decision making (She et al., 2020) and always try to show good financial statements (Amernic & Craig, 2010; Chariri & Nugroho, 2009) so that in the end, it will have a positive effect on company performance (Wales et al., 2013). In this study, the highlight is the company's reporting with a focus on environmental disclosure both through sustainability reports and social media.

The test results showed that there is a difference between environmental disclosure on social media with sustainability reports. At its presentation, the sustainability report

of each company listed on the IDX still looks varied (Anggraeni & Djakman, 2018) although there has been a standard for the reporting, namely the GRI standard so the absence of information as disclosed by Fatima et al. (2015) is not an obstacle.

Environmental disclosure differences between sustainability reports and social media tend to be much lower than environmental disclosure on social media indicates a lack of company attention to disclosure through social media. This is unfortunate considering that according to several previous studies, it shows the need for disclosure through social media to minimize asymmetric information (Khlifi, 2021; Nuseir & Qasim, 2021). The low environmental disclosure on social media indicates that environmental disclosure to companies in Indonesia through social media is still in its early stages. This supports previous research conducted by Ramananda & Atahau (2020) and Giacomini et al. (2020).

Indonesian investors which are mostly dominated by millennials (Liputan6.com, 2021) will tend to use social media as a source of information and a means of communication rather than traditional media. This is because of the timeliness that social media has and is not found in traditional media. However, the results showed a difference in information coverage between the two media.

Referring to the GRI standard as the main reference for the environmental disclosure index, it is concluded that most of the companies' total environmental disclosure score on social media is smaller than the sustainability report so that several considerations must be raised when investors choose social media as a source of environmental disclosure information because it has advantages in terms of timeliness but has disadvantages in terms of completeness of the content.

In the theory of CEO narcissism (Chatterjee & Hambrick, 2007), the low disclosure of the environment on social media is something that does not accommodate the personality of narcissism. This is due to the performance of the company's leadership from the point of view of concern for the natural environment, not raised in the company's report through social media.

The company's top leader is the most important component for the company in making strategic decisions both in financial and non-financial matters. One of the non-financial decisions is the one in the disclosure of its environment.

Based on Mann-Whitney statistical testing, it is obvious that there are differences in environmental disclosure of sustainability reports that was implemented by narcissistic and non-narcissistic CEOs. This is in line with previous research conducted by (Bouzouitina et al., 2021) which leads to the conclusion that narcissistic CEOs affect CSR disclosure. The narcissistic personality of the CEO will have an impact on decisions in the disclosure of the environment on sustainability reports.

The Mann-Whitney test in the previous discussion showed no difference between narcissistic CEOs and non-narcissistic CEOs in terms of disclosure of their environment on social media. Although some previous research mentioned that social media is a reliable means of obtaining information (Gupta et al., 2021), they have some essential features for stakeholders such as punctuality, accessibility, and interactivity (Amin et al., 2021) to reduce the amount of noise (Zhong & Gao, 2017). However, in practice, the disclosure of the company's environment through this media is still minimal regardless of the company being led by a narcissistic or non-narcissistic CEO. This indicates that the

performance of leaders (regardless of leaders with narcissistic or non-narcissistic personalities) in paying attention to the natural environment is not reflected in the company's social media.

6 Theoretical and Policy Implications

This study explores the use of Instagram as an environmental disclosure media in terms of narcissistic accounting. This study supports the theory of narcissistic accounting although not all hypotheses are supported. The results of the first test showed that environmental disclosure through social media of companies in Indonesia listed in the IDX is different from environmental disclosure through sustainability report and show a lower score. Second, there is a difference between narcissistic and non-narcissistic CEO in terms of disclosure of the environment in sustainability reports which indicates that the theory of narcissistic accounting plays a role in terms of image creation on disclosure in traditional media. Different from social media, narcissistic and non-narcissistic CEOs show no difference in their environmental disclosure.

Viewed from a theoretical point of view, this study expands on previous research in the context of narcissism theory, especially CEO narcissism which is more inclined to Accounting studies in the realm of disclosure, especially regarding environmental disclosure. This study provides an overview of the importance of environmental disclosure in the creation of corporate image and its leaders. In addition, environmental disclosure media is also discussed in this study where social media creates new opportunities for companies in displaying images. Means of environmental disclosure through social media is expected to accommodate the needs of stakeholders regarding the existence of corporate environmental disclosure information out of the context of the CEO's narcissistic interests.

Social media that became the highlight in this study is Instagram where the database used is the upload of photos and videos. Further research is expected to add other social media elements such as Twitter or Facebook which has a dominant text database so that it can accommodate limitations and expand the range of generalizations.

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Chapter 16

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Abstract





This paper examines several factors that stimulate the implementation of social commerce (SC) in Indonesian small and medium enterprises (SMEs). We empirically analyzed the effect of SC implementation on cognitive ability, customer loyalty, information quality, completeness of feature, and fraud incidence. In the analysis process, we utilize a multiple linear regression model with a sample of 413 SMEs separated into two test models. The entire sample was tested with Model 1 and the Model 2 test was divided into three years of observation (2019–2021). In testing the two models, the cognitive capacities of SMEs and customer loyalty consistently have a significant influence on the adoption of SC. In the meantime, feature completeness and low fraud risk have a significant influence on the adoption of SC in 2021. This result is corroborated by our observations, which indicate that the development of online purchasing and selling features on social media platforms has stimulated the growth of SMEs utilizing SC. Academically, this study could assist university officials with new E-Commerce course development projects. Practically, the findings of this study can motivate the government to reduce unemployment by encouraging unemployed individuals to become entrepreneurs using SC. More detailed explanation in the discussion section.

Keywords
(separated by '-')

Social commerce - Small and medium enterprises - Cognitive - Customers - Fraud



Why Is Social Commerce so Special for SMEs?

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[AQ1](#)

Abstract. This paper examines several factors that stimulate the implementation of social commerce (SC) in Indonesian small and medium enterprises (SMEs). We empirically analyzed the effect of SC implementation on cognitive ability, customer loyalty, information quality, completeness of feature, and fraud incidence. In the analysis process, we utilize a multiple linear regression model with a sample of 413 SMEs separated into two test models. The entire sample was tested with Model 1 and the Model 2 test was divided into three years of observation (2019–2021). In testing the two models, the cognitive capacities of SMEs and customer loyalty consistently have a significant influence on the adoption of SC. In the meantime, feature completeness and low fraud risk have a significant influence on the adoption of SC in 2021. This result is corroborated by our observations, which indicate that the development of online purchasing and selling features on social media platforms has stimulated the growth of SMEs utilizing SC. Academically, this study could assist university officials with new E-Commerce course development projects. Practically, the findings of this study can motivate the government to reduce unemployment by encouraging unemployed individuals to become entrepreneurs using SC. More detailed explanation in the discussion section.

Keywords: Social commerce · Small and medium enterprises · Cognitive · Customers · Fraud

1 Introduction

Globally, online marketing of goods and services has permeated numerous business sectors [1]. Electronic commerce (EC) media, which provides a two-way communication platform between sellers and buyers in transactions, is frequently used in online meetings between vendors and buyers [2–5]. In practice, many business actors implement EC by utilizing social media in their transactions. According to previous research, the use of social media for purchasing and selling transactions is frequently referred to as social commerce (SC) [6]. Social media that are often used include Facebook, Youtube, Instagram, and Whatsapp.

The discussion on SC becomes more interesting in the case in Indonesia. Many small and medium enterprises (SMEs) in this country have succeeded in expanding their

businesses by utilizing SC during and following the Covid-19 outbreak. According to Indonesian statistics data, 54.66% of the 2.4 million SMEs used social media in their purchasing and selling operations [7–9]. SME actors prefer social media channels over official website platforms due to social media’s extensive network and rapid information dissemination. On the other hand, there are numerous SMEs that are handicapped in the marketplace because they do not employ SC in their transactions and product marketing. Therefore, a study on the implementation of social commerce is essential based on these facts since it can be used as a reference for SMEs business actors to develop their business using social media. As a result, the purpose of this study is to examine the factors that affect the deployment of SC by SMEs.

Basically, the use of information technology in transactions by SMEs actors in Indonesia is still relatively low. Janita and Chong [10] explained that Indonesia has the largest number of SMESs in Southeast Asia, but the number of e-business participation in Indonesia is still very low. In fact, the adoption of e-business in transactions is predicted to extend supply chains globally [2]. Meanwhile, Chen et al. [11] shows that the use of social media “Facebook” in running a business is proven to impulsively encourage consumers to buy. Zhao et al. [12] explains that the honesty of the seller in transacting using social commerce encourages customers to repurchase and increases their trust in the seller. In addition, online buying and selling transactions have been proven to accelerate the delivery of product information to customers [13, 14]. Based on the exploration results of several previous literatures, we can see that the use of information technology makes it easy for consumers to transact without being hindered by distance and time, and consumers can quickly obtain product information from sellers.

Broccardo and Zicari [15] prove that the sustainability of SMEs in Italy is strongly influenced by innovations that can create value from these businesses. This shows that the speed of product information and the variety of products offered through social commerce (SC) can increase the value of SMEs and increase business visibility. Thus, the use of information technology in running the SMEs business supports business sustainability.

Based on the explanation that has been described previously, we will analyze in more depth about the practice of social commerce (SC) by SMEs actors in Indonesia. More specifically, this study focuses on several factors that motivate SME actors to use SC in their transactions, including cognitive capacity, customer loyalty, information quality, feature completeness, and fraud incidents. In addition, learning about SC for undergraduate graduates in Indonesia tends to be more practical. They do not get knowledge of concepts and strategies in marketing goods and services online in college. Therefore, this study also provides scientific knowledge to scholars regarding the SC concept as it is implemented in SMESs, allowing them to obtain a better understanding.

2 Literature Review and Hypotheses

2.1 Cognitive Ability and Social Commerce

Technological innovations that continue to develop at this time have brought changes in the pattern of buying and selling transactions at local and international levels. One of the most visible changes is the increase in the cognitive abilities of young people

in operating information technology, especially using social commerce (SC). Previous research has reported that the technological advances strongly support the increase in the usefulness of SC in the buying and selling transactions. The results of a survey of 181 SMEs in Saudi Arabia show that technological innovation strongly supports the increase in the use of SC by SMEs actors [16]. Meanwhile, Sohn and Kim [17] explained that the use of SC increases the number of customers. Another study showed that the use of SC allows direct interaction between sellers and buyers, thereby, increasing mutuality between sellers and buyers [18]. Based on the three studies, we argue that the ability of SMES actors to adapt to the technological innovation encourages the implementation of SC in the buying and selling transactions. This means, the use of SC in the buying and selling transactions is supported by the cognitive ability of SMEs actors in following the latest technological development. We proxy the cognitive abilities of SMEs actors with their level of education. Based on this explanation, the hypothesis (H1) is formulated as follows.

H1: There is a positive and significant influence of the level of education of SME actors on the use of social commerce in the buying and selling transactions.

2.2 Customer Loyalty and Social Commerce

One of the important factors in the buying and selling transactions using SC is customer loyalty. Chen and Yang [19] revealed that customer loyalty in the buying and selling transactions using SC is determined by their experience in shopping online. Meanwhile, Osatuyi et al. [20] has proven that the usability of goods offered through SC that is in accordance with consumer tastes have a significant effect on customer loyalty. Nadeem et al. [21] added that the guarantee of privacy security will stimulate customer loyalty which is manifested in increasing the use of SC. Thus, the implementation of SC leads to an increase in the number of customers who are loyal to the products produced by SMEs. In this study, we proxy customer loyalty by the number of customers who are loyal to SME products. Based on this explanation, the hypothesis (H2) in this study is formulated as follows.

H2: There is a positive and significant influence of the number of customers who are loyal to SMEs products on the use of social commerce in the buying and selling transactions.

2.3 Quality of Information and Social Commerce

Bugshan and Attar [22] explained that completeness of information is an important factor in implementing social commerce (SC). Tajvidi et al. [23] revealed that the quality of information in SC can be measured by the level of value creation for the product brands offered. Meanwhile, Meilatinova [24] also revealed that the success of SMEs businesses using SC in Southeast Asian countries including Indonesia is strongly influenced by the quality of information generated from the buying and selling transactions. Both studies imply that the suitability between the products offered in SC and consumer tastes represents the level of information quality. Therefore, the quality of information in the buying

and selling transactions using SC can reduce the number of customer complaints about products sold by SMEs. In this study, we proxy the quality of information by the number of complaints about the products offered by customers. Based on this explanation, the hypothesis (H3) in this study is formulated as follows.

H3: There is a negative and significant effect of the number of product complaints by SMEs customers on the number of uses of social commerce in the buying and selling transactions.

2.4 Completeness of Features in Social Commerce

Shen et al. [25] have proven that entrepreneurs' interest in technology strongly supports the increase in the use of SC in the buying and selling transactions. Interest in using SC is strongly influenced by the richness of features presented in SC [26, 27]. Meanwhile, Salvatori and Marcantoni [28] mention that the interesting features in SC include: customer rating, product review, transaction rating, discussion board (forum), customer wish list for the products offered (social wish-list), content tags, and chat room. Thus, the completeness of features in SC makes it easier for customers to participate in determining the design and shape of goods produced by SMEs. In this study, we proxy the completeness of features in SC by increasing or decreasing the number of customer participation in determining SME products. Based on this explanation, the hypothesis (H4) in this study is formulated as follows.

H4: There is a positive and significant influence on the number of customers who participate in determining the design and shape of SMEs products on the use of social commerce in buying and selling transactions.

2.5 Fraud and Social Commerce Incidents

The existence of the current social commerce (SC) model has changed the business patterns of a small number of SME actors in Indonesia. Uniquely, many customers choose the online to offline (O2O) pattern in the buying and selling transaction process using SC. O2O is implemented by marketing goods online, while payment transactions, picking up goods, and returning goods are carried out offline [29, 30]. The main factor that drives the use of O2O in buying and selling transactions is the anticipation of personal data security incidents [31]. Thus, the O2O model is a strategy used to anticipate fraud incidents in the online buying and selling transaction process. Intravia et al. [32] suggested that social media consumption significantly affects the fear of crime.

Fraud incidents that often occur are falsification of account data/privacy data in payment transactions [33, 34]. Counterfeiting often manifests itself in credit card fraud in the online buying and selling transactions [35]. Keshri et al. [36] shows the threat of personal data theft is also often carried out by malware attacks. In addition, online buying and selling fraud can also be identified by the uncertainty of product information and discrepancies between the products offered and the products sent to customers [37]. This means, buying and selling transactions using SC can minimize the incidence of

Table 1. Sample Technique

Criteria	Years			Total
	2019	2020	2021	
Population (SMEs ready and willing to share data and information via social media)	236	339	396	971
(-) Incomplete data and information	(129)	(203)	(226)	(558)
Total SMEs Sample used	107	136	170	413

account fraud because it allows buyers to do O2O. Based on the explanation that has been described, the hypothesis (H5) in this study is formulated as follows.

H5: There is a positive and significant influence of the number of customers who make online to offline buying and selling transactions on the use of social commerce.

3 Research Design

3.1 Data and Data Sources

The acquisition of data in this research is using a quantitative approach. This study involves 1 dependent variable, namely the use of social commerce and 5 independent variables, including: cognitive ability, customer loyalty, information quality, completeness of features, and fraud incidents. Meanwhile, we use secondary data sourced from social media published by the SMEs studied, the Central Bureau of Statistics of the Republic of Indonesia (www.bps.go.id), and online mass media.

3.2 Sampling Technique

This study uses SMESs from various sectors as samples for analysis. Samples were collected from the Indonesian Central Bureau of Statistics in 2019 and 2021, and the Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia in 2019 and 2021. We implement a purposive sampling technique, namely sampling based on certain criteria [38]. We took samples with the following criteria: 1) SMEs willing to submit detailed information about their business activities using social media platforms such as Facebook, Instagram, and WhatsApp; 2) Easy access to online data and information needed in the study. In the end, we obtained 413 SMEs to apply to this study. The sample technique used in this study is shown in Table 1.

3.3 Variable Measurement

The dependent variable in this study is the number of buying and selling transactions using social commerce (SC) in logarithmic form. Meanwhile, the independent variables include: the cognitive ability of SMES actors (CC), customer loyalty (LP), information

quality (IQ), completeness of features (CF), and fraud incidents (FI). The CC variable is measured by the education level of the SMEs owner in a dummy manner, notation 1 (Elementary School), notation 2 (Secondary School), notation 3 (Bachelor); The LP variable is calculated using the logarithm of the number of customers who purchase SME products more than twice per year (2019–2021); The IQ variable is measured by the number of complaints by customers against the products produced by SMEs in the form of logarithms; The CF variable is measured by the number of customers who participate in determining the design and shape of SMEs products in logarithmic form; The FI variable is measured by the number of customers who make online to offline (O2O) transactions in logarithmic form.

3.4 Analysis Design

In this study, the researcher tested the hypothesis using the multiple linear regression method to identify causality between the independent variable (X) and the dependent variable (Y) [39–42]. To operationalize this method, the researcher has designed it into four stages of analysis, including: 1) perform the classical assumption test; 2) calculate the statistical value – F through simultaneous regression test; 3) perform a partial regression test to determine the effect between the independent and dependent variables individually; 4) calculate the value of R-square (R²) through the coefficient of determination test.

3.4.1 Classical Assumption Test

Classical assumption test is a statistical requirement that must be met in multiple linear regression analysis based on ordinary least squares (OLS) [43]. This model is used to determine whether the model used is deviant or not, and representative or not. The tests carried out are in the form of normality test, multicollinearity test and heteroscedasticity test. Ghozali [38] explained that the data normality test is carried out with the aim of testing whether in the regression model there are confounding variables or residuals that cause the data to be not normally distributed. The multicollinearity test aims to test whether the regression model find a correlation between the independent variables. Furthermore, the heteroscedasticity test aims to see whether in the regression model there is an inequality of variance from the residuals of one observation to another observation.

3.4.2 Simultaneous Regression Testing

Simultaneous regression test aims to find the value of the F-statistic which is the basic or fundamental statistic that describes all the relationships between objects collectively [44]. The value of the F-statistic is also a parameter to determine the appropriateness of the accuracy of the regression model used for hypothesis testing in research [43]. If the calculation produces a probability value of <0.05 , then the results indicate that all independent variables can explain significantly the dependent variable. In other words, the regression model used is appropriate for hypothesis testing.

3.4.3 Partial Regression Testing

This study explores the effect of several variables, including Cognitive Ability (CA), Customer Loyalty (CL), Information Quality (IQ), Completeness of Feature (CF), and Fraud Incidence (FI), on the deployment of SC in order to identify several factors that motivate SMEs to implement SC. Using data for three years (2018–2020), this study divides the aiming procedure into two steps that are examined annually and as a whole. With the premise that the other independent variables are constant, partial regression testing is performed to identify the effect of individual independent variables on the dependent variable [43]. In this work, the Multiple linear regression models for hypothesis testing are separated into two models.

Model 1. All the Data Testing

$$\text{Log SC} = \alpha + \beta_1 \text{CC} + \beta_2 \text{Log LP} + \beta_3 \text{Log IQ} + \beta_4 \text{Log CF} + \beta_5 \text{Log FI} + \mu$$

Model 2. Annually Testing

$$\text{Log SC}_t = \alpha + \beta_1 \text{CC}_t + \beta_2 \text{Log LP}_t + \beta_3 \text{Log IQ}_t + \beta_4 \text{Log CF}_t + \beta_5 \text{Log FI}_t + \mu$$

Notes:

SC: The logarithm of the number of buying and selling transactions using social commerce.

CC: Dummy variable of the education level of SME actors.

LP: The logarithm of the number of loyal customers who purchase products from a SMEs more than twice annually.

IQ: Logarithm of the number of customers who complain about SME products.

CF: Logarithm of the number of customers who participate in determining the design and shape of SME products.

FI: Logarithm of the number of customers who make online to offline transactions.

t: Years of $-t$ (2019–2021).

α : Constant.

β : Coefficient.

μ : Error term.

4 Results and Discussion

4.1 Normality Test

Table 2 shows that the value of Asymptotic significance 2-tailed is 0.200 above 0.100. In accordance with the decision-making basis of the Kolmogorov-Smirnov test, these results indicate that the data are normally distributed. Thus, the data of this study have met the normality test in the regression model.

Table 2. Normal probability test results

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		413
Normal Parameters ^{a,b}	Mean	0.000
	Std. Deviation	0.491
Most Extreme Differences	Absolute	0.036
	Positive	0.027
	Negative	-0.036
Test Statistic		0.036
Asymp. Sig. (2-tailed)		0.200 ^{c,d}

Note(s)

a. Test distribution is Normal; b. Calculated from data; c. Lilliefors Significance Correction; d. This is a lower bound of the true significance

Table 3. Multicollinearity test results

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Prob.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.396	0.150		22.695	0.000		
CC	0.015	0.002	0.329	7.323	0.000	0.977	1.023
LP	0.048	0.009	0.246	5.172	0.000	0.873	1.145
IQ	0.046	0.038	0.054	1.207	0.228	0.980	1.021
CF	0.089	0.042	0.095	2.111	0.035	0.980	1.020
FI	0.038	0.015	0.121	2.544	0.011	0.874	1.145

Note(s): Dependent Variable is SC

4.2 Multicollinearity Test

The basis for the decision making of the multicollinearity test is the value of tolerance (TOL) and variance inflating factor (VIF). Based on the output table, it is known that the tolerance value of each variable is greater than 0.1. Meanwhile, the VIF value for each variable is less than 10. Then, according to the decision-making basis for the multicollinearity test, we can conclude that there is no multicollinearity symptom in the regression model. Table 3 shows the results of the multicollinearity test.

4.3 Heteroskedasticity Test

Figure 1 shows that data dots are distributed above and below or around the number 0. Then we can observe that the dots are not concentrated only on the top or bottom.

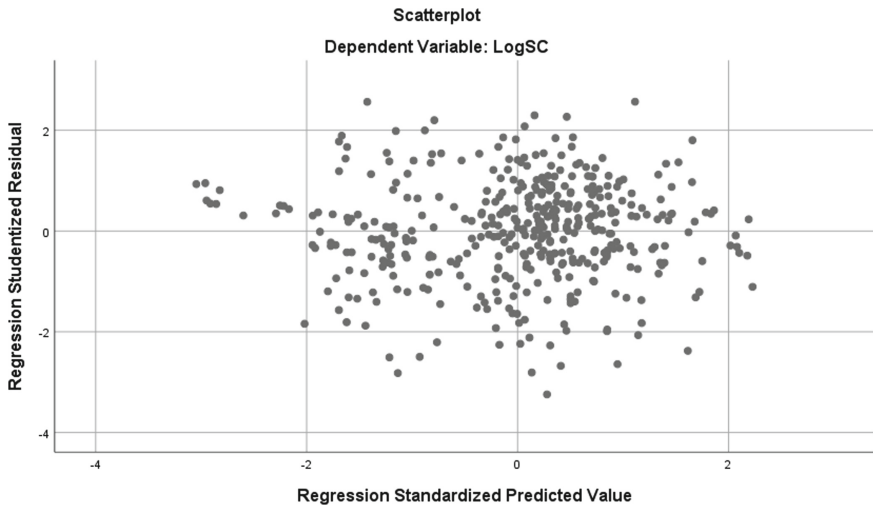


Fig. 1. Heteroskedasticity test results

The distribution of data points does not resemble a wavy pattern that has been widened, narrowed, and widened again. According from the analyses, we can conclude that there is no heteroscedasticity issue, allowing for the creation of an excellent and ideal regression model.

4.4 Hypothesis Test

Table 4 summarizes the results of the Model 1 and Model 2 tests. The Model 1 test results indicate that the probability value (p-value) for the CC, LP, CF, and FI variables is less than the 5% significance level. These findings suggest that SME actors’ cognitive ability, customer loyalty, consumer involvement in product design, and security against fraud are the predictors of SC deployment. The R-Square (R²) value is 0.198, implying that the four variables affect the SC variable by 19.8%. The hypotheses H1, H2, H4, and H5 are accepted based on these findings. In contrast, the Log IQ variable has a probability value greater than 0.1, indicating that it has no effect on the SC variable. These findings suggest that information quality is not a decisive factor for SC implementation. On the basis of these observations, the H3 hypothesis is refuted.

During the three years of testing, the CC and LP variables consistently had p-values below the 10% significance level, according to the Model 2 test results (2019–2021). These findings suggest that the cognitive capacities of SME actors, as well as customer loyalty, are the primary motivators for using social media in purchasing and selling transactions. Meanwhile, the variables IQ, CF, and FI have p-values above the 10% significance level in 2019 and 2020, indicating that these three factors have no effect on the SC variable. These findings imply that the quality of information, consumer input in product creation, and the risk of deception have little bearing on the adoption of SC by SME actors. The test findings in 2021, on the other hand, demonstrate that the CF and FI variables have p-values below the 10% significance level, implying that these

Table 4. Regression test results

Dependent Variable: Log SC	Predicted Sign	Model 1	Model 2		
		All	2019	2020	2021
CC	+	0.015* (0.002)	0.016* (0.004)	0.027* (0.003)	0.005*** (0.003)
LP	+	0.048* (0.009)	0.044* (0.016)	0.045* (0.015)	0.033** (0.016)
IQ	–	0.046 (0.038)	0.079 (0.099)	0.031 (0.064)	0.003 (0.058)
CF	+	0.089** (0.042)	–0.045 (0.096)	0.025 (0.052)	0.248* (0.078)
FI	+	0.038* (0.015)	0.064 (0.061)	0.017 (0.045)	0.033*** (0.019)
Constant		3.396* (0.150)	3.484* (0.004)	3.618* (0.003)	3.289* (0.262)
R ²		0.198	0.232	0.443	0.106
Prob. F-Stat		0.000*	0.000*	0.000*	0.002*
N		413	107	136	170

Note(s):

This table displays the correlation coefficient number (β), while the number between parentheses is the standard error. The signs *, **, *** indicate significance at the levels of 1%, 5%, and 10%, respectively

two variables are the driving factors for the growth in the number of SC users following the Covid-19 pandemic. Our observations reveal that the growth of online buying and selling capabilities exhibited on social media, such as the emergence of the Whatsapp for business application and the marketplace feature on the Facebook application, is supporting the growth of SC users in Indonesia.

Overall, the test results of the two models suggest that SMEs' cognitive capacity, customer loyalty, feature completeness, and low risk of fraud have a significant impact on the deployment of SC in buying and selling transactions. These findings show that customer convenience in transactions are the primary drivers of SC implementation in online buying and selling operations. Previous research has demonstrated that consumer pleasure with items contributes to customer retention when employing social commerce [45]. Academically, this study has the potential to spark new E-Commerce subject initiatives at the university. Practically, the findings of this study can be used as a reference for the government to reduce Indonesia's 14.2-million-person unemployment rate [8], by encouraging them to become entrepreneurs utilizing SC.

5 Conclusion

This paper examines some of the advantages gained by SMEs in Indonesia when performing transactions utilizing SC during the Covid-19 pandemic. According to the findings of this study, the cognitive abilities associated with the level of education increase the desire of SME actors to transact via SC. Other findings indicate that the benefits of applying SC in SMEs include increased customer loyalty, increased user participation in product design and shape, and increased security from fraud incidences in purchasing and selling activities. This means that SC makes it simple for clients to deal with the seller directly. According to the findings, the features of online buying and selling transactions using SC include: encouraging SMEs' cognitive abilities toward information technology, transaction convenience that leads to customer loyalty, allowing customer involvement in product design, and minimizing fraud in online buying and selling transactions. As a result, we conclude that SC provides a better mechanism for SME purchasing and selling transactions than online buying and selling models through intermediaries.

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Abstract	<p>The goal of this research is to determine the role of trust mediation in the relationship between electronic word of mouth (E-Wom) and consumer purchase intention of cosmetic make-up. Female students at Al-Mizan Islamic Boarding School in Cikole Pandeglang, Banten, were studied. In this study, E-Wom is an exogenous variable, consumer purchase intention is the dependent variable, and trust is an intervening variable. This study employs quantitative techniques such as descriptive and causal research. The data from the three variables were analyzed in SmartPLS software version 3.0.m3 using the Structural Equation Model (SEM). 70 people were used as samples in this study. According to the data analysis results, E-Wom has a positive and significant influence on trust. Consumer E-research by Women.</p>	
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Trust Mediation in the Relationship Between Electronic Word of Mouth and Buying Intention

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Abstract. The goal of this research is to determine the role of trust mediation in the relationship between electronic word of mouth (E-Wom) and consumer purchase intention of cosmetic make-up. Female students at Al-Mizan Islamic Boarding School in Cikole Pandeglang, Banten, were studied. In this study, E-Wom is an exogenous variable, consumer purchase intention is the dependent variable, and trust is an intervening variable. This study employs quantitative techniques such as descriptive and causal research. The data from the three variables were analyzed in SmartPLS software version 3.0.m3 using the Structural Equation Model (SEM). 70 people were used as samples in this study. According to the data analysis results, E-Wom has a positive and significant influence on trust. Consumer E-research by Women.

Keywords: E-word of mouth · trust · purchase intention

1 Research Background

The cosmetics industry in Indonesia is rapidly expanding. The national cosmetic industry grew 6.35% in 2017 and 7.36% in the first quarter of 2018. Furthermore, the domestic cosmetic industry grew by 153 companies in 2017, bringing the total to more than 760. The small and medium industrial sector (IKM) accounts for 95% of the national cosmetic industry, with the remainder being large-scale industry (www.kemenprin.go.id, access 22 March 2019). However, based on data from the Ministry of Industry, cosmetic imports in 2018 amounted to US \$ 850.15 million, an increase compared to 2017 of US \$ 631.66 million (Pelakubisnis.com). The increase in cosmetics imports in Indonesia illustrates the higher consumer purchase intention of imported cosmetics in Indonesia. It means, Purchase intention is something personal, a conscious effort to buy a brand and a reflection of a consumer's purchase plan [1, 2].

Purchase intention is highly correlated with purchasing behavior by consumers and could be an indicator and predictor that consumer intention leads to purchasing behaviour [2–4]. According to [5] When managers have a correct understanding of the factors that influence consumer purchase intentions, it can efficiently provide strong long-term relationships with consumers. Thus, the first step towards creating long-term relationships with consumers and turning them into loyal customers is to identify the factors that influence consumer purchase intentions.

Many factors can influence consumer purchase intentions, including product quality [6], product packaging [7], price [8] social networking sites [9] as well as a variety of other factors Social media platforms, from a marketing standpoint, facilitate consumer engagement and collaboration [10]. Social media is gradually supplanting traditional or ‘old’ media (e.g., television, radio, and magazines), and it is rapidly becoming an important platform for marketers to promote brands and products, make closer connections, and develop deep online marketing relationships [12–14]. Cosmetics is one of the industries that is aware of the use of current developments in communication technology, the cosmetic industry uses this as a promotional event to consumers. These strategies include creating websites, social media accounts, endorsement of artists on social media and so on. This is also unconsciously done by cosmetic consumers, they exchange information by reviewing the products they use on various platforms or just by leaving comments on social media, both Instagram, Youtube and also on websites such as femaledaily.com. The activity of reviewing or exchanging information between consumers is usually called word of mouth or WOM and because it is done in online media, it is also called E-Wom [15–18].

Wom as a decision-making resource for consumers because it provides information about product performance as well as the social and psychological implications of potential purchasing decisions [19, 20]. When consumers are familiar with sources from WOM, the information received is considered more reliable, credible, and trustworthy [21]. For example, product reviews in online media are increasingly seen by consumers when searching for pre-purchase information [22, 23, 26], and this forms a purchase intention [25, 26]. The above statement is further strengthened by data from the Zap Beauty Index survey in 2018, namely before buying beauty products online or offline, 73.2% of women first look for product reviews online. 55% of women use Instagram and 41.6% use YouTube to learn more about the product they want to purchase. Even Indonesian women trust beauty bloggers’ information more (40.9%) than their friends’ (38.1%). (Zap beauty index August 2018).

2 Theoretical Review

2.1 Word of Mouth and Word of Mouth Electronic

According to [27] WOM can be defined as any positive or negative statement made based on the customer’s experience of a product or company, which is available to many people and institutions using the Internet. Internet media makes it easy for someone to communicate and share information about a product with people who already have and experience without having to meet face to face. Consumers are looking for information

shared by previous customers, so they feel comfortable before buying a product or service [18]. Consumers' online product reviews are an example of e-Wom communication. The difference between Wom and e-wom is the type of media Wom uses, which is usually face-to-face versus online e-wom. With technological advancements, the physical location of this type of communication has shifted from face-to-face to cyberspace or online [2].

On research [28] proposed a measurement scale for the Wom (e-Wom scale) in the context of electronic services. According to Goyette, Word-of Mouth can be defined as informal and direct verbal communication, via telephone, e-mail, mailing lists, or other communication methods regarding services or goods. Sources of recommendations can be personal or impersonal.

2.2 Trust

Trust is defined as “a party’s willingness to be vulnerable to another party’s actions based on the expectation that the other party will take certain actions that are important to the giver of trust, regardless of the ability to monitor or control the other party” [27]. Garbarino and Johnson [29] clarify the definition of belief in [27], they define trust as consumer confidence in the quality and reliability of services offered by the organization. Customer trust in a brand (brand trust) is defined as the customer’s desire to rely on a brand despite the risks associated with the brand’s expectations [27]. Brand trust is essential.

The proclivity to believe in a brand’s ability to perform its promised function can define trustworthiness [27]. Trust is regarded as one of the keys to improving consumer-brand relationships, and it has recently been identified as a key variable in long-term customer relationships [27]. Trust is the first thing that a customer must earn in order to form a strong and lasting relationship with a brand. Positive behavior such as the intention to buy and recommend products will occur when one party trusts the other [41].

2.3 Purchase Intention

Purchase intention is one of the phases in the decision-making process for consumers that arise after a need is felt by an individual, because purchase intention is a psychological variable that intervenes between attitudes and actual behaviour [16, 30] also stated that purchase intention is an effective tool for predicting the buying process [30]. Purchase intention is defined as a situation in which consumers are more likely to buy certain products under certain conditions. Intention is used to predict a person’s proclivity to do or not do something. According to studies, a consumer’s positive attitude toward a brand has a significant impact on his purchase objective and willingness to pay a value premium [16]. Purchase intention, according to [31], is an attempt to buy a product or visit a shop that provides a service. According to the preceding literature, purchase intention has several important meanings; Purchase intention refers to a consumer’s willingness to consider making a purchase. Purchase intent represents what a person ‘wants’ to buy in the future (Fig. 1).

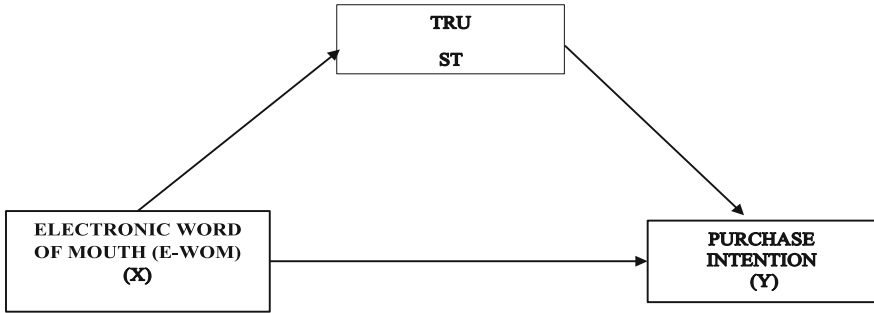


Fig. 1. Research Model

3 Methods

3.1 E-WOM Variable

Indicator E-Wom was adopted and adapted from research [17, 28, 31, 32], consists of five indicators, namely; Intensity (E-Wom1), Content (E-Wom2), Motivation, (E-Wom3), Quality of Arguments (E-Wom4) Source credibility (E-Wom5).

3.2 Trust Variable

Indicator Trust is adopted and adapted from research [11, 33–35], consists of five indicators, namely; Competence (Trust1), Benevolence (Trust2), Integrity (Trust3), Honesty (Trust4), Prediction (Trust5).

3.3 Purchase Intention Variable

Indicator purchase intention was adopted and adapted from research [2, 31], consists of five indicators, namely; Looking for product information (PurIn1), Considering purchasing a product (PurIn2), Trying to buy a product (PurIn3), Recommending a product (PurIn4), Repurchasing a product (PurIn5).

3.4 Population and Sample

In this study, 70 students from Santriwati Al-Mizan Islamic Boarding School in Cikole Pandeglang, Banten, participated. The data for this study will be collected by distributing questionnaires to female students at Al-Mizan Islamic Boarding School in Cikole Pandeglang, Banten.

4 Result and Discussion

4.1 Result

The loading score parameter in the research model (Rule of Thumbs > 0.7) and the AVE parameter (Average Variance Extracted) with a score > 0.5 , Community > 0.5 , and R2and Redundancy can be used to measure construct validity [36].

Table 1. Discriminant Validity

Construct	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values
E-Wom	0.784	0.782	0.050	15.667	0.000
Purchase Intention	0.657	0.660	0.051	12.859	0.000
Trust	0.727	0.731	0.049	14.963	0.000

Sources: Primary data is processed (2021)

Table 2. Composite Reliability

Construct	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values
E-Wom	0.916	0.914	0.023	39.109	0.000
Purchase Intention	0,905	0,904	0.020	44.254	0.000
Trust	0.930	0.930	0.016	56.946	0.000

Sources: Primary data is processed (2021)

The construct is valid, as shown in Table 1, because it has a high validity value for determining E-Wom, Purchase Intention, and Trust. Value Cronbach's alpha and composite reliability are statistical methods used to assess internal consistency in instrument reliability tests or psychometric data (Table 2).

Because each construct or latent variable has a composite reliability value greater than 0.7, the internal consistency of exogenous variables with endogenous variables is reliable.

4.2 Data Analysis

4.2.1 Analyze the Data and Evaluate the Outer Model (Measurement Model)

Three criteria are used to evaluate the outer model: convergent validity, discriminant validity (square root of average variance extracted (AVE)), and composite reliability [37] (Fig. 2).

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4.2.2 Outer Model Research Variable

The value of the outer model or the correlation with the variables as a whole that meets Convergent validity, the t-statistical value of all indicators has met the model adequacy or discriminant validity requirements, as shown in Fig. 3 (Table 3).

The coefficient = 0.698 with t count = 6.567 and (Pvalue = 0.000) at t = 1.96 indicate that trust and purchase intention are positive and significant. For E-Wom, trust was discovered to be positive and significant at coefficient = 0.890 with t count = 37.592

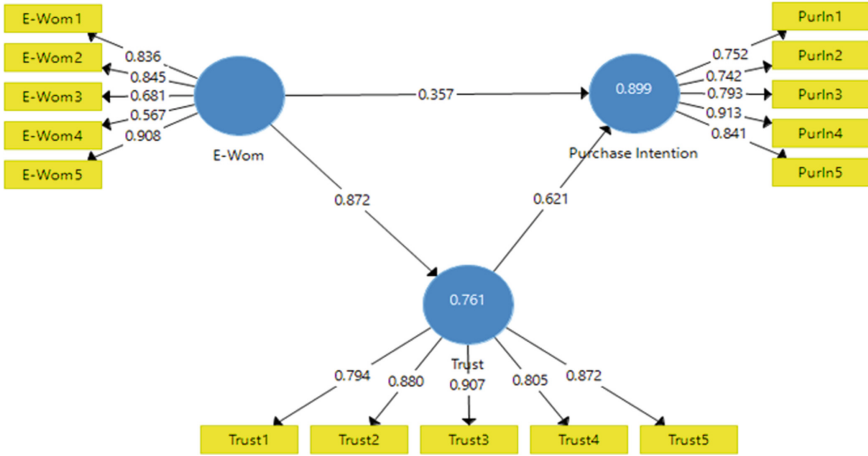


Fig. 2. Partial Least Square Structural Model

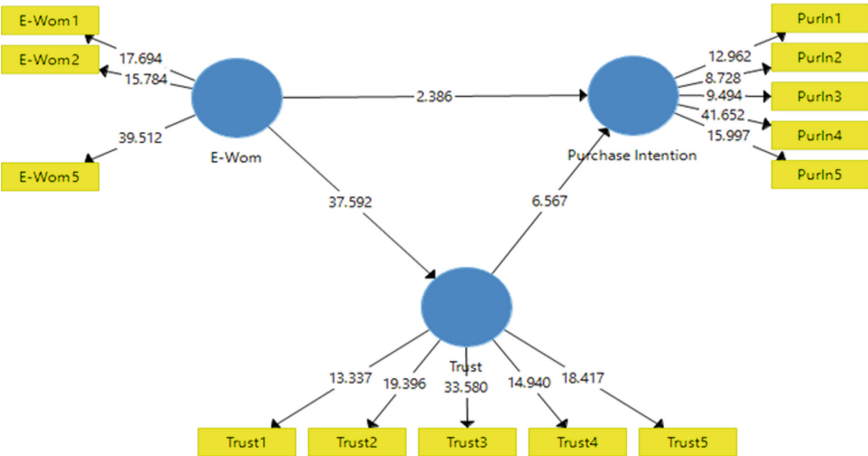


Fig. 3. Partial Least Square Structural Model

and (Pvalue; = 0.000) at $t = 1.96$. At coefficient = 0.262, t count = 2.386, and (Pvalue; = 0.017) at $t = 1.96$, E-Wom has a positive purchase intention.

In Table 4, the R-square value of Purchase Intention is 0.879, and the R-square value of Trust is 0.789. Because exogenous variables can explain endogenous variables, the higher the R-square, the better the structural equation.

4.3 Discussion

4.3.1 E-Wom Effect on the Trust

The results of the study show a positive and significant relationship between E-Wom and Trust at the coefficient = 0.890 with t count = 37.592 and (Pvalue; = 0.000) at $t = 1.96$.

Table 3. Result For Inner Weight

Construct	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values
E-Wom → Purchase Intention	0.262	0.259	0.110	2.386	0.017
E-Wom → Trust	0.890	0.282	0.896	37.592	0.000
Trust → Purchase Intention	0.698	0.702	0.106	6.567	0.000

Source: Primary data is processed (2020)

Table 4. R-Square

Construct	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values
Purchase Intention	0.879	0.885	0.027	32,293	0.000
Trust	0.789	0.801	0.043	18.409	0.000

Source: Primary data is processed (2020)

This study’s findings support previous research by [31] In other words, social media is a valuable source of information for consumers. This could be because consumers want to reduce risk and get a ‘unbiased’ third-party opinion on online purchases. Most likely, E-WOM aided in the development of reputation and trust [38]. According to a study on trust in E-WOM for travel information, most tourists rely heavily on E-WOM in their travel planning and booking.

4.3.2 E-Wom Affect Purchase Intention

E-Wom had a positive Purchase Intention at coefficient = 0.262 with t count = 2.386 and (Pvalue; = 0.017 at t = 1.96. The findings of this study back up previous research by [39, 40] that WOM is a phenomenon that occurs naturally in consumer behavior. Network, and transparency of the internet have expanded consumer options for gathering information and engaging in WOM [41]. E-wom has long been considered an influential marketing instrument [16, 18, 41, 42]. Social ewom occurs when consumers provide or explore product-related recommendations through the typical application of social networking sites [16]. Online reviews act as powerful informants and provide recommendations and then significantly influence consumer purchase intentions as well as actual purchases [43].

4.3.3 Trust Affect Purchase Intention

Trust and purchase intention have a positive and significant influence at the coefficient = 0.698 with t count = 6.567 and (Pvalue = 0.000) at t = 1.96. Trust has a direct

Table 5. Shows the direct and indirect effects

Construct	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values
E-Wom - > Purchase Intention	0.622	0.630	0.101	6.170	0.000

Source: Primary data is processed (2021)

and indirect impact on consumer purchase intentions, according to research findings [44]. Trust can also be defined as the target's credibility and goodwill [45, 52]. Trust is defined in the context of SNS (social media) as belief or hope about another (trusted) party, or a willingness to rely on another party [29, 31, 46]. Trust influences online consumer purchase intentions positively [24, 47–49] added that customer trust can lead to a positive attitude towards a brand, can also increase loyalty, and further install purchase intentions.

4.4 Effect Analysis

The effect analysis, as shown in Table 5, was performed to determine the magnitude of exogenous variables' influence on endogenous variables, either directly or indirectly.

Based on $t\text{-Stat} = 6.170 > t\text{-count of } 1.96$ with $p\text{ Value} = 0.000 < 0.05$, trust can mediate, according to Table 5. The findings of the study show that trust mediates E-Wom to Purchase Intention. According to the findings, the higher the Trust, the more effective E-Wom is at increasing Purchase Intention. This is consistent with the empirical research conducted by [50, 51] to test the influence of E-Women on purchase intention, with trust acting as a moderator. Trust has a significant impact on consumer purchase intentions.

5 Conclusion and Recommendation

5.1 Conclusion

The hypothesis testing results show that all of the hypotheses proposed in this study are acceptable. E-Wom influences Purchase Intention positively. This demonstrates that the higher the level of E-Wom application in a company, the higher the Purchase Intention. According to this study, E-Wom has a positive effect on Trust. The higher the level of E-Wom application, the more evidence there is that trust has a positive effect on Purchase Intention. The more trust a company has from other companies, the greater its purchase intention. Furthermore, the study discovered that E-effect Wom's on Purchase Intention is mediated by Trust.

5.2 Recommendation

The proposed hypothesis was proven by this study. However, we recognize that this study has limitations, so the findings may not be generalizable to other industries. Furthermore, the sample size for this study is small. As a result, additional research can be conducted by examining other industries, such as the service or retail industries, and increasing the number of samples. Future research can look at the antecedent variable for E-Wom in order to broaden our understanding of E-Wom and its relationship with Purchase Intention.

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

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Abstract	<p>Financial reports are a medium for an entity, in this case the local government to account for its financial performance to the public. Local governments must be able to present financial reports that contain quality financial information. This study aims to determine the effect of Human Resource Competence, Information Technology Systems, Internal Control Systems and Government Accounting Standards on the Quality of Local Government Financial Reports. While the population in this study were employees of Regional Apparatus Organizations (OPD) in Tegal District. The sample in this study were finance and accounting staff at OPD Tegal District. The research object used was 39 OPD, from 100 respondents who were finance and accounting staff at the Regional Apparatus Organization (OPD) of Tegal District. The results of this study prove that the competence of human resources and government accounting systems have no effect on the quality of financial reports. Meanwhile, information technology systems and internal control systems affect the quality of financial reports.</p>	
Keywords (separated by '-')	Human Resource - Information Technology - Internal Control Systems - Accounting Standards	



The Effect of Human Resources Competence, Information Technology Systems, Internal Control Systems and Government Accounting Standards on the Quality of Local Government Financial Reports (Empirical Study of the Tegal Regency Regional Apparatus Organization)

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Abstract. Financial reports are a medium for an entity, in this case the local government to account for its financial performance to the public. Local governments must be able to present financial reports that contain quality financial information. This study aims to determine the effect of Human Resource Competence, Information Technology Systems, Internal Control Systems and Government Accounting Standards on the Quality of Local Government Financial Reports. While the population in this study were employees of Regional Apparatus Organizations (OPD) in Tegal District. The sample in this study were finance and accounting staff at OPD Tegal District. The research object used was 39 OPD, from 100 respondents who were finance and accounting staff at the Regional Apparatus Organization (OPD) of Tegal District. The results of this study prove that the competence of human resources and government accounting systems have no effect on the quality of financial reports. Meanwhile, information technology systems and internal control systems affect the quality of financial reports.

Keywords: Human Resource · Information Technology · Internal Control Systems · Accounting Standards

1 Introduction

Good and responsible government governance is needed in every government, both central and local government. One of the embodiments of good governance is that the government has good quality financial reports in its management. The same research was conducted by (Maysaroh, 2018), which explains that financial reports are a medium for an entity, in this case the local government to account for its financial performance to the public. Local government must be able to present financial reports that's contain quality financial information. One of the government's ways to achieve quality government

financial management is to apply government regulation no. 71 of 2010 which is relevant, reliable, comparable, and understandable.

Government financial statements that can meet the desired quality must have the four qualitative characteristics above as normative prerequisites that need to be realized in accounting information so that it can fulfill its objectives. The quality of financial reports will improve the quality of information presented in financial statements (Modo, Saerang, & Poputra, 2016).

According to (Sukmaningrum, 2012) financial reports produced by local governments will be used by several interested parties as a basis for decision making. Therefore, the information contained in the Regional Government Financial Report (LKPD) must be useful and in accordance with the needs of the users. An information will be useful if the information can support decision making and can be understood by users. Therefore, local governments are required to pay attention to the information presented in financial reports for planning, controlling, and decision-making purposes.

Financial reports that can be accounted for are those prepared by competent Human Resources (HR) and understand the rules for preparing financial statements with Government Accounting Standards (SAP). HR competence is the ability to carry out functions to achieve its objectives effectively and efficiently. HR is an important factor for the creation of quality financial reports (Ihsanti, 2014). According to (Wati, Herawati, & Sinarwati, 2014) In this case the existence of HR competence underlies a person to achieve high performance in his work has a very important role to plan, implement, and control the entity concerned.

The quality of financial reports can also be influenced by Information Technology Systems (STI). By using STI financial reports can be of higher quality because the data has been structured by the system. (Hall, 2009) An information system is a set of formal procedures by which data is collected, processed into information and distributed to users. Information technology has become the main choice in creating an information system for an organization that is strong and capable of giving birth to a competitive advantage in the midst of technological advances (Modo et al., 2016). In order to create good government performance, efforts are made to implement applications on financial management of central and regional governments.

Another aspect that affects the quality of local government financial reports is the Internal Control System (SPI). Based on Government Regulation No. 60 of 2008 SPI is an integral process in actions and activities carried out continuously by the leadership and all employees to provide adequate confidence in the achievement of organizational goals through effective and efficient activities, reliability of financial reporting, safeguarding state assets and compliance with laws and regulations. The high quality of local government financial reports is determined by how good its internal controls are. If internal control is weak, it will be difficult to detect fraud in the accounting process so that it can cause audit evidence obtained from the accounting data to be irrelevant (Dewi, Purnamawati, & Herawati, 2017). The same research was conducted by (Untary, 2015) Internal control consists of policies and procedures used to achieve goals and guarantee or provide reliable financial information, as well as ensure compliance with applicable laws and regulations. Therefore, the application of SPI can increase the reliability, objectivity of information, and improve the quality of financial reports.

The application of Government Accounting Standards (SAP) also needs to be carried out for quality financial reports. SAP are accounting principles that must be applied to obtain quality financial reports. Government Regulation Number 71 of 2010 concerning Government Accounting Standards states that financial statements are structured reports regarding the financial position and transactions carried out by a reporting entity. Research (Adhi & Suhardjo, 2013) states that the application of SAP requires every reporting entity, which in this case includes local governments to report the efforts that have been made and the results achieved in the implementation of activities in a systematic and structured manner in a reporting period for the sake of accountability. Management, transparency, balance between generation and performance evaluation. Through the application of SAP, useful financial reports will be prepared. The usefulness of financial statements is determined by the content of the information presented in the financial statements. In order for the financial statements to contain meaningful information, the financial statements must be prepared based on SAP.

Slawi – The Examining Agency (BPK) of the Republic of Indonesia, Central Java Representative, gave an unqualified assessment (WTP) of the Tegal Regency Regional Government Financial Reports (LKPD) in 2020. This was quite revealed during the 2020 LKPD Examination Result Report (LHP) submission. In the hall of the BPK RI Central Java representative office, Monday (25/05/2021) afternoon.

<http://setda.tegalkab.go.id/2021/05/25/kelima-kalinya-pemkab-tegal-raih-opini-wajar-without-exception/>.

The above phenomenon shows that the competence of human resources in government agencies has an effect on the quality of financial reports so that local governments can obtain WTP opinion awards on their LKPD.

The object of this research is the employees of the local government of Tegal Regency. Tegal Regency can generate significant regional income so that the management of its regional financial statements must be carried out in an accountable manner.

2 Literature Review

2.1 Local Government Financial Report

Regional government financial reports are accountability reports for the implementation of regional revenue and expenditure budgets which include budget realization reports, balance sheets, cash flow reports, and notes on financial statements within a certain period. Nurillah (2014) states that the general purpose of financial statements is to present information about the financial position, budget realization, cash flow, and financial performance of a reporting entity that is useful for users in making and evaluating decisions regarding resource allocation (Sukmaningrum, 2012) states that financial statements also have a general purpose, namely predictive and prospective roles, providing useful information to predict the amount of resources generated from and for sustainable operations, as well as the associated risks and uncertainties.

2.2 Human Resources Competence

Human resources are people who are ready, willing and able to contribute in an effort to achieve organizational goals, human resources cover three aspects, namely education, experience and training. Human resource competence includes its capacity, namely the ability of a person or individual, an organization (institutional), or a system to carry out its functions or authority to achieve its goals effectively and efficiently. Capacity must be seen as the ability to achieve performance, to produce outputs and outcomes (Nurillah, 2014). Humans are responsible for managing the organization, therefore human resources are an important element and always exist in the organization (Hullah & Pontoh, 2017).

2.3 Information Technology System

Information technology systems can be interpreted as a technology used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to create quality information, namely information that is relevant, accurate and timely, which is used for personal purposes, business, and government and is strategic information for decision making. According to (Hartono, 1995), technology is a tool used by individuals in completing their tasks, in the context of information systems, technology related to computer systems (hardware, software, data) and the use of support services (training) that provide guidance for use in completing tasks. Duty.

2.4 Internal Control System

The internal control system in a nutshell is the policies and procedures designed to provide management with reasonable assurance that the organization is achieving its goals and objectives (Rai, 2008). Based on government regulation no. 60 of 2008 concerning the Government's Internal Control System, the government's internal control system is an integral process for activities and actions carried out continuously by the leadership and the achievement of organizational goals through effective and efficient activities, reliability of financial reporting, safeguarding state assets, and compliance with legislation.

2.5 Government Accounting Standards

Government Accounting Standards regulate the presentation of financial statements for general purposes in order to increase the comparability of financial statements both against budgets, between periods, and between entities. General purpose financial statements are financial statements that are intended to meet the common needs of most report users. To achieve this, the Government Accounting Standards stipulates all considerations in the context of the presentation of financial statements, guidelines for the structure of financial statements and the minimum requirements for the contents of financial statements (Zeyn, 2011).

3 Research Method

3.1 Population Dan Sample

Population is the sum of all objects (units/individuals) whose characteristics are to be estimated. The population in this study were employees of Regional Apparatus Organizations (OPD) in Tegal Regency. The sample is a number of individuals who are representative of the population. The sample in this study used the proportional stratified random sampling method. Proportional stratified random sampling is a sampling method by taking samples from the population randomly and proportionally stratified (Sugiyono, 2007). The sample in this study were finance and accounting staff at OPD Tegal Regency. The OPDs studied were 39 OPDs using 100 respondents who were finance and accounting staff at the Tegal Regency Regional Apparatus Organization (OPD).

3.2 Data Types and Sources

This research is quantitative research. This type of research data is primary data, namely research data obtained or collected through google forms. While the data sources in this study were obtained from the answers to the questionnaires distributed to respondents.

3.3 Data Analysis Technique

Testing this hypothesis is done by using multiple linear regression analysis method which aims to test the relationship between one variable and another. Multiple linear regression analysis used can be formulated as follows:

$$KLK = \alpha + \beta_1 KSDM + \beta_2 STI + \beta_3 SPI + \beta_4 SAP + \varepsilon \quad (1)$$

Information:

- KLK: Quality of Financial Report
- KSDM: Human Resources Competence
- STI: Information Technology System
- SPI: Internal Control System
- SAP: Government Accounting Standard
- α : Constant
- β : Regression Coefficient
- ε : Error.

4 Result and Discussion

4.1 Multiple Linear Regression Analysis

The multiple linear regression model in this study is shown as follows (Table 1).

The regression equation is as follows:

$$KLK = 3.376 - 0.008(KSDM) + 0.364(STI) + 0.385(SPI) + 0.100(SAP) + e$$

Hypothesis test:

Table 1. Multiple Linear Regression Test Results

Model	B	Std Error	t-count	Sig.
(Constant)	3.376	2.793	1.337	0.184
KSDM	-0.008	0.077	-0.105	0.917
STI	0.364	0.114	3.201	0.002
SPI	0.385	0.085	4.539	0.000
SAP	0.100	0.064	1.558	0.122

Note(s): R-Square = 0.558; F-Stat = 31,618; Adjusted R-Square = 0.541; $\alpha = 0.05$
 Source: Primary data processed by the author, 2022

- 1) that the competence of human resources, information technology systems, internal control systems and government accounting systems increases, the quality of financial reports will increase.
- 2) Statistically the regression coefficient of human resource competence shows a negative coefficient of -0.008, thus it can be seen that human resource competence reduces the quality of financial reports.
- 3) Statistically the regression coefficient of the information technology system shows a positive coefficient of 0.364. Thus, it can be seen that the information technology system is able to improve the quality of financial reports.
- 4) Based on the table shows the probability value of 0.000 which means it is smaller than the significance level = 0.05, so it can be concluded that all independent variables simultaneously affect the dependent variable. This also shows that the regression model used is goodness of fit.
- 5) Statistically the regression coefficient of the internal control system shows a positive coefficient of 0.385, thus it can be seen that the internal control system is able to improve the quality of financial reports.
- 6) Statistically the regression coefficient of the government accounting system shows a positive coefficient of 0.100, thus it can be seen that the government accounting system is able to improve the quality of financial reports.

4.2 F Test

To test the significance (significance) of the multiple correlation coefficient, the F test must be used. The results are as follows (Table 2).

4.3 Coefficient of Determination (R2)

The coefficient of determination is used to determine how much the variance of the dependent variable can be explained by the independent variable. The results of the calculation of the coefficient of determination (R2) can be seen in the following Table 3.

Statistically the calculation results for the R2 value obtained in the multiple regression analysis obtained the coefficient of determination with an adjusted-R2 of 0.541. This

Table 2. F test result

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	617.392	4	154.348	31.618	0.000
	Residual	488.170	100	4.882		
	Total	1105.562	104			

Source: Primary data processed by the author, 2022

Table 3. Coefficient of determination result (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.747	0.558	0.541	2.209

Source: Primary data processed by the author, 2022

means that 54.1% of the variation in the quality of financial statements can be explained by the competence of human resources, information technology systems, internal control systems and government accounting systems, while the remaining 45.9% is explained by other factors outside the model studied.

4.4 Test Statistic t

The t statistic test shows the level of influence on one independent variable individually in explaining the dependent variable. This test aims to test the significance of the effect of each independent variable on the dependent variable. The results of the t test test are described in Table 1 which shows the following:

a. First Hypothesis Test Result (H_1)

Based on the t-test of the human resource competence variable, it is known that the tcount value is -0.105 while the ttable value with a 95% confidence level or ($\alpha: 0.05$) is 1.660 because $tcount < ttable$ and the significant value is $0.917 > 0.05$, thus H_1 which states that the competence of human resources has no effect on the quality of financial statements is rejected. It can be interpreted that the competence of human resources has no significant effect on the quality of financial reports.

b. Second Hypothesis Test Result (H_2)

Based on the t-test of the information technology system variable, it is known that the tcount value is 3.201 while the magnitude of the ttable value with a 95% confidence level or ($\alpha: 0.05$) is 1.660 because $tcount > ttable$ and a significant value of $0.002 < 0.05$, thus H_2 which states that information technology systems affect the quality of financial reports received. It can be interpreted that the information technology system has a significant effect on the quality of financial reports.

c. Third Hypothesis Test Result (H_3)

Based on the t-test of the internal control system variable, it is known that the tcount value is 4.539 while the value of ttable with a 95% confidence level or ($\alpha:$

0.05) is 1.660 because $t_{count} > t_{table}$ and a significant value of $0.000 < 0.05$, thus H3 which states that the internal control system affects the quality of financial reports is accepted. It can be interpreted that the internal control system has a significant effect on the quality of financial reports.

d. Fourth Hypothesis Test Result (H₄)

Based on the t-test of the government accounting system variable, it is known that the tcount value is 1.558 while the value of ttable with a 95% confidence level or ($\alpha: 0.05$) is 1.660 because $t_{count} < t_{table}$ and a significant value of $0.122 > 0.05$, thus H4 which states that the government accounting system has no effect on the quality of financial statements is rejected. It can be interpreted that the government accounting system has no significant effect on the quality of financial reports.

5 Conclusions and Suggestions

5.1 Conclusions

This study aims to examine the competence of human resources, information technology systems, internal control systems and government accounting standards on the quality of local government financial reports. The sample in this study was 105 respondents in the regional apparatus organization of Tegal Regency. Based on the results of the study as described in the previous chapter, several conclusions can be drawn, namely:

1. Competence of human resources has no significant effect on the quality of local government financial reports or the first hypothesis is rejected.
2. Information technology systems have a significant effect on the quality of local government financial reports or the second hypothesis is accepted.
3. The internal control system has a significant effect on the quality of local government financial reports or the third hypothesis is accepted.
4. Government accounting standards have no significant effect on the quality of local government financial reports or the fourth hypothesis is rejected.

5.2 Suggestion

1. This research needs to be developed by adding other variables to add a detailed explanation of the quality of financial reports.
2. Research needs to be expanded by conducting research in Central Java districts in order to provide a more complete explanation related to the level of understanding of accounting.

Further research needs to use data collection methods in other ways so that the data obtained is more reliable and accurate.

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Abstract

Research on financial distress and bankruptcy prediction is an interesting topic to examine. This can be seen from the many studies on this topic. The emergence of many economics, management, and accounting journals in Indonesia has tried to document and evaluate the results of bankruptcy prediction models. The purpose of this research is to provide empirical evidence on the study of financial distress and bankruptcy prediction in Indonesia. This research is a type of bibliographic study. This study analyzed 100 articles on financial distress, bankruptcy prediction, and the similar from 41 nationally accredited journals indexed by Sinta 1 and Sinta 2 from 2002 to 2021. The approach used in this research is charting the field. Researchers used this approach in mapping financial distress research over the past 20 years based on accredited journals in Indonesia. The results of financial distress and bankruptcy prediction research are mostly published by the Accounting Analysis Journal (AAJ). As many as 72% of research articles use financial distress and bankruptcy prediction as dependent variables. The most widely used research method is the analytical method with the object of research on manufacturing companies. Interest Coverage Ratio (ICR) is the most widely used indicator of financial distress assessment and bankruptcy prediction after Altman Z-Score and Modified Z-Score - EM Score.

Keywords
(separated by '-')

Financial distress - Bankruptcy prediction - Bibliography - Literature review



Financial Distress and Bankruptcy Prediction Research in Indonesia: Last 20 Years

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[AQ1](#)

Abstract. Research on financial distress and bankruptcy prediction is an interesting topic to examine. This can be seen from the many studies on this topic. The emergence of many economics, management, and accounting journals in Indonesia has tried to document and evaluate the results of bankruptcy prediction models. The purpose of this research is to provide empirical evidence on the study of financial distress and bankruptcy prediction in Indonesia. This research is a type of bibliographic study. This study analyzed 100 articles on financial distress, bankruptcy prediction, and the similar from 41 nationally accredited journals indexed by Sinta 1 and Sinta 2 from 2002 to 2021. The approach used in this research is charting the field. Researchers used this approach in mapping financial distress research over the past 20 years based on accredited journals in Indonesia. The results of financial distress and bankruptcy prediction research are mostly published by the Accounting Analysis Journal (AAJ). As many as 72% of research articles use financial distress and bankruptcy prediction as dependent variables. The most widely used research method is the analytical method with the object of research on manufacturing companies. Interest Coverage Ratio (ICR) is the most widely used indicator of financial distress assessment and bankruptcy prediction after Altman Z-Score and Modified Z-Score - EM Score.

[AQ2](#)

Keywords: Financial distress · Bankruptcy prediction · Bibliography · Literature review

1 Introduction

Company conditions experience dynamics from time to time. The company's ability to earn profits is not always accompanied by the ability to handle debt. The inability to compete can result in decreased profitability. Too much debt burden can cause the company to experience cash flow pressure [1]. Information on the healthy or financially distressed condition of a company is very important. It is important not only for the sector in which the company operates but also for the financial system and the economy as a whole [2]. The fundamental nature of business activities involves taking risks [3]. Some companies are unable to avoid financial distress.

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Financial distress is a term in corporate finance used to describe a condition where a company's commitment to pay debts to creditors has been breached or cannot be paid [4, 5]. This is generally associated with high costs for the company because it is unable to pay its obligations, which is called the cost of financial distress [6]. Financial distress is a serious problem that can lead to corporate bankruptcy. Bankruptcy is defined as a condition in which a company's business operations are terminated under a certain legal framework [7].

Recorded since January 2022, there are more than 10 issuers that have the potential to be delisted by the Indonesia Stock Exchange (IDX) and previously had been stopped or suspended for a long time. The IDX can delist the shares of a listed company if the company experiences conditions or events that have a material adverse impact on the company's operations, both financially and legally, or on the continuation of the company's status as a public company. On the other hand, the listed company cannot show adequate indications of recovery. A number of issuers whose shares have been suspended for more than 24 months by the IDX, namely: PT Nipres Tbk (NIPS), PT Sugih Energi Tbk (SUGI), PT Polaris Investama Tbk (PLAS), PT Magna Investama Mandiri Tbk (MGNA), PT Trikonsel Oke Tbk (TRIO), and PT Hanson International Tbk (MYRX). There are 5 issuers that have received warnings from the IDX because they have the potential to be delisted, even though they have not reached the 24-month stock suspension period, namely: PT Leyand International Tbk (LAPD), PT Cowell Development Tbk (COWL), dan PT Garda Tujuh Buana Tbk (GTBO) which have each experienced an 18-month suspension, while for PT Dua Putra Utama Makmur Tbk (DPUM) and PT Bukit Uluwatu Villa Tbk (BUVA) have each experienced a 6-month suspension [8]. Kwee [9] suggests that companies facing potential delisting have generally experienced financial problems in a certain period. These problems can include not publishing financial reports, not paying capital market fees, facing the risk of bankruptcy until business operations are not running at all.

Thai et al. [10], Prihadi [1], and Çolak [2] explain that for lenders, a decrease in the ability to pay can result in a decrease in creditor income. In its most severe form, creditors find that some of their borrowers default. One of the analyses developed from the lender's side is bankruptcy analysis. This analysis can help companies and investors in making decisions in saving the company from bankruptcy. Early indications of a company that can be recognized early if the financial statements are analyzed more carefully in a certain way [10–12].

Financial ratios can be used as an indication of a company's level of financial distress which can then form a prediction model [13–20]. Bankruptcy prediction models that have been successfully developed include univariate analysis [13], Multivariate Discriminant Analysis [21], logit model [14], probit model [22], and hazard model [23]. These prediction models use various financial ratios consisting of liquidity ratios, solvency ratios, profitability ratios, activity ratios [2] and some models include macroeconomic influences in the assessment [23].

Financial distress and bankruptcy prediction is becoming an increasingly interesting area of research. Many academic studies have explored the best accuracy prediction model of company failure [24]. Research on financial distress and bankruptcy prediction is an interesting topic to examine. This can be seen from the many studies on this

topic. The emergence of many economics, management, and accounting journals in Indonesia has tried to document and evaluate the results of bankruptcy prediction models. Motivated by research by [25] on bibliographic research in management accounting, [26] on the development of banking performance, [27] on taxation research, researchers try to examine with similar methods the review of financial distress research and bankruptcy prediction in Indonesia.

The purpose of this research is to provide empirical evidence on the study of financial distress and bankruptcy prediction in Indonesia. This study analyzed 100 articles on financial distress, bankruptcy prediction, and the similar from 41 nationally accredited journals indexed by Sinta 1 and Sinta 2 until 2021. The approach used in this research is charting the field. Researchers used this approach in mapping financial distress research over the past 20 years based on accredited journals in Indonesia. This research is expected to contribute to the development of financial distress research and bankruptcy prediction in Indonesia, so that it can be a literature review for further research that will conduct research on the same theme in Indonesia.

2 Research Method

This research is a type of bibliographic study. The research method used in this study is the charting the field method conducted by [25]. In this approach, researchers tried to select several research articles on financial distress research, bankruptcy prediction and the similar published in Sinta 1 and 2 accredited journals, then grouped based on research topics and variables, assessment models, research methods, and research objects. The criteria for selecting the journals are as follows. First, the accredited journals are active in 2022. Second, the journals can be accessed online. Researchers selected structurally and systematically all articles published in each journal. Third, only selected articles related to financial distress research and bankruptcy prediction in Indonesia. The total number of Sinta 1 and 2 accredited journals in the fields of economics, management, accounting, business, and finance is 95 journals. Journals that cannot be accessed online totaled 2 journals and journals that did not provide articles on financial distress, bankruptcy prediction and the similar totaled 52 journals. Based on this selection process, 41 accredited journals were obtained.

3 Results and Discussion

This study used 100 articles obtained from 41 Sinta 1 and 2 accredited journals with an observation period of 20 years.

3.1 Article Classification by Variable and Research Topic

We refer to research [25] and research [26] however, in this article we classify on 4 classifications namely variables and topics, assessment models, research methods, and research objects. Classification of financial distress and bankruptcy prediction articles based on research variables. There are four types of variables: dependent variables,

Table 1. Classification of Articles by Variable Type

Variable	2002 to 2011		2012 to 2021		2002 to 2021	
	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)
Dependent	5	5	67	67	72	72
Independent	5	5	19	19	24	24
Control	1	1	0	0	1	1
Moderating	0	0	2	2	2	2
Intervening	0	0	1	1	1	1
Total	11	11	89	89	100	100

Table 2. Classification of Dependent Variables

Variable	2002 to 2011		2012 to 2021		2002 to 2021	
	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)
Financial Distress	3	4	57	79	60	83
Bankruptcy Prediction	2	3	10	14	12	17
Total	5	7	67	93	72	100

independent variables, control variables, moderating variables, and intervening variables. Table 1, explains the classification of articles that discuss financial distress and bankruptcy prediction in Indonesia based on the position of the variables used.

Table 1 can be concluded that of the 100 sample articles for the period 2012–2021, financial distress and bankruptcy prediction are mostly positioned as the dependent variable or about 67% (67 articles) that discuss the factors that cause financial distress and bankruptcy prediction. The use of financial distress as an independent variable increased significantly from 5 articles to 19 articles. It can be concluded that 24% of the research results state that financial distress and bankruptcy prediction can affect other variables which are important assessments in company performance. Control, moderating, and intervening variables each only play a role at 1–2%.

The classification of research topics is explained in Tables 2, 3, and 4. In Table 2, the theme of financial distress in the dependent variable increases significantly from 4% (3 articles) to a total of 79% (57 articles), which means that the theme of financial distress dominates in this bibliographic study. The remaining 17% (12 articles) used bankruptcy prediction as a research theme. The same thing happens with the independent variables. Based on Table 3, the dominating research theme of 88% (21 articles) is financial distress, the remaining 13% (3 articles) use the theme of bankruptcy prediction. The theme of financial distress also dominates the use of control, moderating and intervening variables (Table 4).

Table 3. Classification of Independent Variables

Variable	2002 to 2011		2012 to 2021		2002 to 2021	
	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)
Financial Distress	4	17	17	71	21	88
Bankruptcy Prediction	1	4	2	8	3	13
Total	5	21	19	79	24	100

Table 4. Classification of Control, Moderating and Intervening Variables

Variable	2002 to 2011		2012 to 2021		2002 to 2021	
	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)
Financial Distress	0	0	3	75	3	75
Bankruptcy Prediction	1	25	0	0	1	25
Total	1	25	3	75	4	100

3.2 Article Classification by Assessment Model

The assessment model in bankruptcy prediction studies has 2 approaches. First, the accounting-based approach. The accounting-based approach uses various financial ratios in predicting the financial condition of the company.

Financial analysts and investors identify financial distress through profitability, liquidity, solvency, and management efficiency in the implementation of funding and financing policies [2, 12, 28]. Research that uses an accounting-based approach includes univariate analysis [13], Multivariate Discriminant Analysis [21], logit model [14], and probit model [22]. Second, the market-based approach. The market-based approach relies on the market valuation of the company by investors [29, 30]. Valuations with a market-based approach include the hazard model [23, 31]. The classification based on the valuation model is presented in Table 5.

Based on table 5, it is known that the assessment using Multivariate Discriminant Analysis (MDA) statistical classification with the Altman Z-Score and Modified Z-Score - EM Score [32] models is most widely used, which is 15% each. The Z-Score model for private companies and Springate model are 2%, and the Grover model is only 1%. The next assessment, logit Ohlson model is 1%, probit Zmijweski model is 3%, and hazard model with Shumway model and Campbell model is 1%. There were 7% (7 articles) that examined the accuracy of several models at once. Other assessments used to indicate the financial condition of companies in financial distress situations and predict bankruptcy are 52%. In Table 6, it is known that the largest number of studies use Interest Coverage

Table 5. Classification of Model Applications

Model	Total	Percentage (%)
MDA		
Z-Score (Altman model)	15	15
Z-Score (Privat Companies)	2	2
Z-Score Modified - Emerging Market Score	15	15
Springate Model	2	2
Grover Model	1	1
Logit		
O-Score Ohlson Model	1	1
Probit		
Zmijewski Model	3	3
Hazard		
Shumway Model	1	1
Campbell Model	1	1
Application of some models	7	7
Others	52	52
Total	100	100

Ratio (ICR), which is 19% as an indicator of financial distress and bankruptcy prediction, followed by Debt Equity Ratio and negative net income, each of which is 17%.

3.3 Article Classification by Research Method

Based on the research methods to examine financial distress and bankruptcy prediction in Indonesia, researchers grouped articles into 2 research methods, namely analytical methods, and literature review. Table 7 shows the classification of articles that discuss financial distress and bankruptcy prediction in Indonesia based on the research method used. The study results show that most of the research types di Indonesia especially the theme financial distress and bankruptcy prediction for the last 20 years in Sinta 1 and 2 accredited journals is using analytical methods. The analytical method was used in 95 research articles, the remaining 5 articles used a literature review approach.

3.4 Article Classification by Research Object

The study of financial distress and bankruptcy prediction has a variety of prediction models, so that researchers can adjust the use of the model to the object under study. The classification of research objects is presented in Table 8. Financial distress and bankruptcy prediction studies were mostly conducted on manufacturing companies is

Table 6. Classification of Other Measurement

Other Measurement	Total	Percentage (%)
Negative Equity	1	2
Interest Coverage Ratio (ICR)	10	19
Merton (1974)	2	4
ROA	2	4
DER	9	17
Negative Net Income	9	17
Non Performance Financing (NPF)	1	2
Credit Risk Model	1	2
Debt Service Coverage Ratio (DSCR)	3	6
EBIT	2	4
EBITDA	1	2
CAMEL	1	2
RGEC	1	2
Negative EPS	3	6
Budget Solvency	1	2
Pefindo Rating	1	2
Moneylender Loans	1	2
DAR	2	4
Current Ratio	1	2
Total	52	100

Table 7. Classification of Research Methods

Research Methods	2002 to 2011		2012 to 2021		2002 to 2021	
	Total	Percentage (%)	Total	Percentage (%)	Total	Percentage (%)
Analytical	10	10	85	85	95	95
Literature review	1	1	4	4	5	5
Total	11	11	89	89	100	100

41%, followed by the banking sector, especially conventional banks is 13%, a combination of various industries in one research article is 13%, while in the stocks and sharia banking sector is 11%. Services sector 9%, mining 8%, public sector 4%, and state-owned enterprises only 1%.

Table 8. Research Objects

Research Objects	Total	Percentage (%)
Manufacturing Company	41	41
Mining Sector	8	8
Services Sector	9	9
Conventional Banks	13	13
Banks/Sharia Shares	11	11
Public Sector	4	4
State-Owned Enterprises	1	1
Diverse Industries	13	13
Total	100	100

4 Conclusion

This study has presented 100 articles that discuss financial distress and bankruptcy prediction published by 41 accredited journals Sinta 1 and 2. The article review is classified based on title, topic and variables, assessment model, method, and research object. The majority of financial distress and bankruptcy prediction research articles in Indonesia are published in Accounting Analysis Journal (AAJ). The topic that is widely discussed is financial distress as the dependent variable as much as 72% (72 articles). Indicators to assess financial distress and bankruptcy prediction for 20 years of research that are most widely used are MDA with the Altman Z-Score model and Modified Z-Score - EM Score. Interest Coverage Ratio (ICR) is another method outside the MDA, logit, probit, and hazard approaches used by most studies. The analytical research method dominated the research from 2002 to 2021 by 95%, and only 5% used the literature review method.

5 Limitations and Suggestions

This bibliographic study is only limited to Sinta 1 and 2 accredited journals, so there are limitations of only 41 journals that can be accessed and reviewed. Further research could add a larger amount of data using a more sophisticated approach. The results of this study show the fact that researchers mostly choose analytical methods in the manufacturing sector, this makes further research opportunities to research with the literature review method or use research objects in the public sector and BUMN, which are known to be limited methods and studies in these sectors.

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Chapter 20

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Abstract This paper aims to systematically examine studies related to tax avoidance and family firms and set an agenda for future study. This study used a systematic approach to review 18 studies of tax avoidance in family firms selected from 1,177 articles published in Scopus indexed journals in 2010-July 2020. Studies on tax avoidance in family firms have reported mixed results. The theories used are agency theory, SEW, resource-based views, stakeholder, and legitimacy theory. The heterogeneity of family firms has received the attention of previous researchers. This study is rarely conducted in developing capital markets. There are very few analyzes with an international approach and private companies' context. This study also revealed that previous studies employed various proxy variables in tax avoidance and family firms. This study filled the gap in tax avoidance study in family firms by (1) develops a comprehensive framework that synthesizes and provides overall direction for tax avoidance study in the family firm; (2) shows a gap in the tax avoidance literature in family firms; and (3) provides direction for future research.

Keywords Tax - Tax Avoidance - Family Firm - Systematic Review
(separated by '-')



Tax Avoidance and Family Firm: A Systematic Literature Review

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Abstract. This paper aims to systematically examine studies related to tax avoidance and family firms and set an agenda for future study. This study used a systematic approach to review 18 studies of tax avoidance in family firms selected from 1,177 articles published in Scopus indexed journals in 2010-July 2020. Studies on tax avoidance in family firms have reported mixed results. The theories used are agency theory, SEW, resource-based views, stakeholder, and legitimacy theory. The heterogeneity of family firms has received the attention of previous researchers. This study is rarely conducted in developing capital markets. There are very few analyzes with an international approach and private companies' context. This study also revealed that previous studies employed various proxy variables in tax avoidance and family firms. This study filled the gap in tax avoidance study in family firms by (1) develops a comprehensive framework that synthesizes and provides overall direction for tax avoidance study in the family firm; (2) shows a gap in the tax avoidance literature in family firms; and (3) provides direction for future research.

Keywords: Tax · Tax Avoidance · Family Firm · Systematic Review

1 Introduction

Studies about family firms [1–7] have grown significantly in recent years. Likewise study on tax avoidance [8–16]. In general, this section seems to have developed independently while the study on the relationship between family firms and tax avoidance is quite limited [17]. [17] state that the tax avoidance study's context requires more study that examines the heterogeneity within a group of family firms. [1] caution that a study focusing on the family versus nonfamily dichotomy, assuming homogeneity among family firms that does not exist, is often overgeneralized with limited explanatory power. Besides, [12] state that tax avoidance theories with ownership structures and stockholders' conflict are less developed. How is the development of tax avoidance study on family firms? Therefore, this study aims to comprehensively review the existing literature on tax avoidance in family firms.

Several previous studies—mergers and acquisitions [18]; structural aspects of corporate governance and performance [19]; brand management [20]; conflicts in family firms [21]; and finance managers [22]—have conducted systematic literature reviews and discussed various topics related to the family firm. These studies add to that line of discussion by examining a topic about tax avoidance and family firms that never discussed before and applying a systematic methodology to discuss what we have learned and the most challenging and promising areas to explore in the future.

This study reviews the existing literature on tax avoidance and family firms comprehensively by primarily addressing the following research questions:

- RQ1. Which journals is the most significant, and how is the distribution of its publication?
- RQ2. Who were the most influential researchers?
- RQ3. What theories have been used?
- RQ4. What research methods have been used?
- RQ5. What samples have been used?
- RQ6. What country settings have been used?
- RQ7. What are proxies that were used to measure tax avoidance and family firm variables?
- RQ8. How are the findings in tax avoidance and family firm studies?

This literature review has several contributions to family firms, tax avoidance, and accounting literature. *First*, it provides historical evidence of the research trend about tax avoidance on family firms. It can be used as material for evaluating the performance of accounting academics [23], specifically related to tax as an accounting sub-area. *Second*, this review highlights tax avoidance and family firms' studies and provides various evidence systematization. *Third*, this review identifies and summarizes about the setting and sample of study that has been used, heterogeneity of family firms, used theories, used data sources, proxy variables of tax avoidance and family firms, diversity of findings in this study theme, the magnitude of the impact of tax avoidance study on family firms, the author who has contributed to knowledge and who integrates literature and suggests several important things for further study, and scientific journals that have contributed to advancing knowledge of this problem. *Finally*, this review guides future research efforts and suggests additional avenues for literature.

2 Research Methods

2.1 Literature Search Process

A systematic literature review follows [24], which recommends three systematic review stages, including review planning, conducting the review, and reporting findings. In building our database of potential articles, we developed the following inclusion criteria. First, our systematic literature review (SLR) focuses only on peer-reviewed of tax avoidance and family firm articles published in English between 2010 and July 2020. Articles that are reviewed in peer review are thought to impart validated knowledge and have the highest impact in the field [25, 26]. Second, we search for articles in the Scopus

database through the Publish or Perish software. Third, in our selected database, we perform title, abstract and keyword searches using various combinations of the following search terms “tax,” and “family firm,” “family businesses,” “family company,” “family corporate,” “family owners,” “family ownership,” “family control,” “family influence,” “family involvement,” “family ties,” “family concentrated corporate,” “family board,” “family CEO,” “family CFO,” “family SMEs.” The following exclusion criteria were also applied in selecting our final collection of articles: (1) articles that unsustainably discuss tax avoidance and family firms as a unit analysis; (2) articles that do not use tax avoidance as a dependent variable; (3) articles that do not use regression analysis; (4) articles that cannot be accessed in the full paper; (5) articles published in Scopus indexed journals but in the category of predatory or have been declared discontinued.

Searching results with several keyword combinations through the Publish or Perish software in the Scopus database were 1,177 articles. A total of 876 articles were excluded because they did not fit the topic based on the identification of the abstract and the title of the article. Furthermore, 77 articles were also excluded due to articles in the form of books, notes, theses, studies, seminars and conferences, and in non-English languages. One hundred nine articles were excluded due to duplication. Eighteen articles cannot be accessed in the full paper. Based on the identification by reading the full paper, there are 58 articles about tax in a household context, 8 articles about tax in agriculture and plantations family contexts, 6 articles did not use tax avoidance as the dependent variable, 4 articles used an econometric framework, 2 articles used individuals as the object of study, and 1 article published in a discontinued journal. The final sample is 18 articles of tax avoidance and the family firm.

2.2 Analysis of Selected Literature

A summary table is created in Microsoft Excel Software where reference information and detailed content of the 18 articles were included as well as the research findings. Subsequent articles were examined independently and separately and coded based on the subject matter [19, 27]. The subject matter includes journals that publish in order of their SJR value, the most influential researchers are seen from the citation analysis and social network analysis with the directed graphs approach [28], theory, sources research data, sample and the focus of the observation’ object, country settings, tax avoidance and family firm proxies, and research findings.

2.3 Description of Articles

The distribution of publications over the years is presented to show how interest in researching tax avoidance in family firms has changed over time. Figure 1 shows the distribution of articles from 2010 to July 2020.

3 Result

3.1 Journal Characteristics

Journal publications are arranged according to their SJR values. The result shows that 17 Scopus indexed journals published tax avoidance research in family firms from 2010

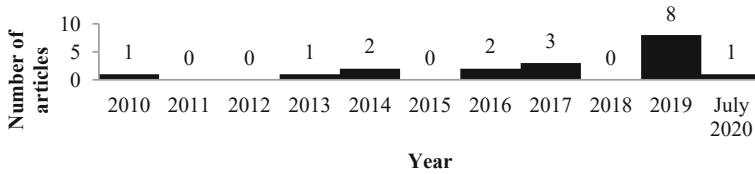


Fig. 1. Article distribution by year of publication

to July 2020. The most influential journal of the theme is the Journal of Family Business Strategy [29, 30]. The journal with the highest SJR is the Journal of Financial Economics [31] and is the first to publish this theme in more than a decade. The findings indicate that the distribution of this research theme's publication is become wider over 2010 to July 2020.

3.2 Analyzing the Community

Citation analysis is one of the most widely used methods in evaluating a scholar's study [32, 33]. The number of citations that were used to evaluate the study is based on the assumption that citations are a way to give credit to and acknowledge the value, quality, and significance of the authors' work [34, 35]. Therefore, a regularly cited publication conveys essential scientific findings and constitutes a substantial foundation for further elaboration, representing a central contribution to the respective research discipline [36]. The result shows that tax avoidance studies in family firms have 568 citations from 2010 to July 2020. It also shows that 13 articles on this theme (72%) have citations ranging from 1 to 464, although 28% have no citation for more than a decade. The most recognized quality and significant study on this theme are [31], with 464 citations. These findings indicate that most of the studies on this theme (72%) have contributed to family firms, tax avoidance, and accounting literature.

The social network analysis in this study uses directed graphs approach as used by [28]. [28] created a diagram in which the authors are represented as points (nodes), and the communication between them is a directed path to visualize the communication. An arrow pointing to an author means that an individual quoted the author at the line's origin. Individuals with many lines that stop knotted can be considered influential individuals in tax avoidance research in family firms. Figure 2 illustrates the network for the entire sample of this study. The diagram shows that the central researcher is [29–31, 37] with at least 3 arrows pointing to their nodes. Authors with many arrows departing from the knot, on the other hand, tend to integrate literature [28]. These authors are [17, 38–40]. [41, 42] do not show influence nor show literature integration.

3.3 Theory Characteristics

The use of a single theory dominates (72%). Several studies use two theories (11%) and three theories (6%). However, some studies do not imply their used theory (11%). The dominant theory used is agency theory (50%), Socio-Emotional Wealth theory (SEW) (28%), combining the theory of agency and SEW (11%), and resource-based view (RBV)

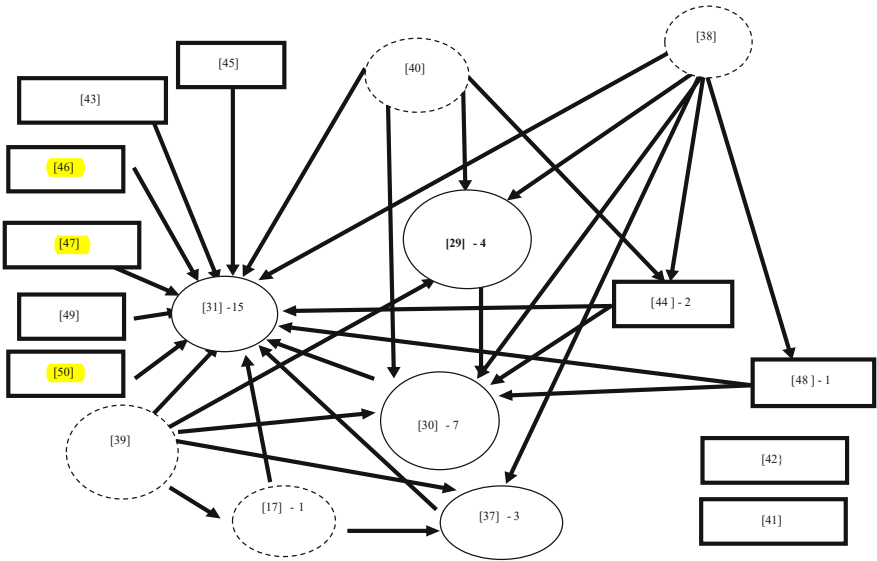


Fig. 2. Social network analysis - directed graphs. Note: symbol \bigcirc : the central researchers and \bigcirc (dashed): researchers who integrate literature

(11%). Agency theory emerged in 2010, SEW theory in 2013, agency and SEW theory in 2016, RBV in 2016, and the stakeholder and legitimacy theory in 2020. The SEW theory was increasingly being used in 2019. These findings indicate that tax avoidance theory in family firms has developed from 2010 to July 2020.

3.4 Characteristics of Research Methods—Data Sources

The findings show that 89% use archival data, and 11% combine archival data and primary-survey data. [43] used a telephone survey to obtain information regarding family firm identification and family involvement. [41] use a questionnaire sent to the CEOs because they know about the company strategy and know about ownership information and corporate governance structures.

3.5 Research Sample Characteristics

The mapping of the sample used in the study of tax avoidance in family firms includes 1) the type of family firm and 2) the focus of the object of observation. *The first classification*, the type of family firm, is divided into 3 groups: public firms, private firms, and both. The finding shows that 61% use public family firms, 28% private firms, and 11% both. *The second classification*, the object of observation, is divided into 2 types: homogeneity or heterogeneity of family firms. The result shows 50% focusing on comparing family and nonfamily firms, and 50% focus on family firms' heterogeneity. These findings indicate that the object of observation on this theme has developed. Research related to the homogeneity of family firms has been criticized. [1] cautioned that the

study focused on the dichotomy of family versus nonfamily, assuming homogeneity among the family company that does not exist. It is often generalized excessive with limited explanatory power. [43] also stated that tax aggressiveness in family firms compared to nonfamily firms is a very complex activity that must be managed from a global perspective regarding the influence of the family in the management of corporate tax policies.

3.6 Characteristics of the Country Setting

The classification of country settings include 1) unit analysis category and 2) the capital market type category. First, the result shows that 94% of studies use a single-country or region approach, and only 6% use the International approach. The international approach conducted by [38]. [38] used 28 countries. These findings suggest that more comparative studies are needed in this theme of study. Second, the result shows 61% of the study uses country data with the developed market category, 33% merging markets category, and 6% both capital market categories. The use of the family firm setting in developed markets, emerging markets, and both in tax avoidance and family firms study has been developed. The findings indicate that the use of family firm settings in countries with emerging market categories is lower than in countries with developed market categories.

3.7 Characteristics of Tax Avoidance and Family Firms Proxy

Tax avoidance as the dependent variable used multiple variable proxies. The most widely used proxies for tax avoidance are the effective tax rate (ETR) (56%), the Book-tax difference (BTD) (33%), cash ETR (22%). 11% of studies were used GAAP ETR. Current ETR, residual book-tax difference, cash flow effective tax rate, and dummy variable of a controlling family's tax-avoidance behaviors is 6%. Various tax avoidance proxies used in tax avoidance studies in family firms for more than 10 years.

The family firm variable is used as an independent variable, moderating variable, an interaction variable. Most of the family firm variables use dummy variable proxies. However, the categories of dummy variables are different. Some studies (such as [31, 44, 45]) follow the previous definition of family firms (e.g., [51, 52]). Family firms refer to companies whose founders or the family members (by blood or marriage) are executives, directors, or blockholders. [48] define a family firm as a member of the S&P 500 in which founders or decedents continue to hold positions in top management, on the board of directors, or among the company's largest shareholders. [49] use CEOs from the founding family [41] followed [53].

3.8 Research Findings on Tax Avoidance in Family Firms

The result shows extant studies on tax avoidance in family firms have reported mixed results. The results show that 72% found family firms are less tax aggressive, 22% found family firms are more tax aggressive. [43] found mixed empirical evidence regarding the relationship between the F-PEC dimension of family influence on business and the tax aggressiveness. The power dimension negatively relates to tax aggressiveness; the experience dimension has a positive relationship. However, no significant results were found for the cultural dimension.

4 Direction for Future Research

This section presents our proposed framework, and it functioned as a bridge between tax avoidance research in existing and future family firms by highlighting both excellent and under-researched issues. This framework is a useful starting point for researchers and new practitioners to understand the current state of tax avoidance in family firms' study and identify areas requiring further study. With these insights, this framework is useful for academics and practitioners to get a quick overview of tax avoidance research in family firms. The framework has three main components (theory, research methods, and findings). We elaborate that framework by discussing gaps in the theoretical components, research methods (data sources, country settings, unit of analysis, sample firm types, heterogeneity of family firms, proxies of tax avoidance variables and family firms), and research findings on tax avoidance in family firms that can be considered by future studies.

First, extant studies on tax avoidance in family firms have reported mixed results. The result shows that this theme's study is still very likely to be developed well by improving its internal and external validity and developing the theory and variables. *Second*, 4 theories have been used in tax avoidance study in family firms for more than a decade. It shows that these tax researchers fulfill the call of [12], which states that the theories related to tax avoidance with ownership structures and the conflict of *bondholder-stockholder* are less developed. The development of existing theories can be tested again with a sample country setting and a different sample company type.

Third, the survey data are still minimally used in studies on tax avoidance in family firms. The survey data still needs to be used in future research to minimize the risk of standard method variance biases [54]. *Fourth*, testing in countries with emerging market categories is still rare. These findings are consistent with [55]'s calls to understand contextual ambiances by conducting other family firms in underrepresented regions of Asia, Africa, and Latin America. [55] argue that such an approach is necessary to test the robustness and generalizability of current theory and research findings and build new knowledge applicable to family firms around the world. *Fifth*, testing with an international approach is still rare. These findings suggest that more comparative studies are needed in this theme. Comparative studies between countries are needed because [56] found evidence that a country with high book-tax conformity is associated with lower tax avoidance.

Sixth, samples of private firms (28%) and the use of both sample (11%) is still rare. These findings suggest that in the future, more studies with this kind of sample are needed. The family SMEs' context represents the family firm's archetype with concentrated family shareholders, lower levels of sophistication of management, and particular concern about the family value and reputation [57]. Studies with the SME family contribute to a broader and more comprehensive picture of the family's influence on corporate tax policy. *Seventh*, the heterogeneity of family firms is still open to further research. The findings of this study are following the call of [17], which states that study in the context of tax avoidance requires more studies that examine the differences (heterogeneity) in the groups of the family firm. The potential causes of heterogeneity among family firms [1] can be broadly grouped according to 1) objectives, 2) governance structure, 3) resources.

Eighth, the proxies for family firms used in 18 articles of tax avoidance in family firms for more than a decade demonstrate the diversity of family firms' definitions. The diversity definition is as stated by [58–60] that currently, there are problems in practicing family business because there is no generally accepted definition of the family business. The diversity definition is in line with [61] call for urging future researchers of family companies to adopt a more standard definition of what it means to be a family company. *Ninth*, 8 tax avoidance proxies were used in 18 studies for more than a decade. This finding is in line with [12], who identified 12 tax avoidance measures that are commonly used in the literature.

5 Conclusions

This study reviewed 18 articles of tax avoidance in family firms over a decade. This study finds several gaps in the literature on this topic, including mixed findings, several theories, and research methods that can be developed. This study has several limitations. First, this study only limits the mapping to empirical articles that use a quantitative – archival and survey approach. Second, the use of additional databases or search engines may provide additional or different results.

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Chapter 21

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Abstract This study aims to solve the problems faced by business actors in the Financial Management of BUMDes SINAR Karungan Mandiri located in Plupuh District. One of the objectives of establishing a Village Owned Enterprise (BUMDes) in Karungan Village, Plupuh District, Sragen Regency, is to support the economy of the community, including the Bahulak Market business actors in Karungan Village, Plupuh District, Sragen Regency. Based on the results of a survey conducted by a research team from Sebelas Maret University, Surakarta and Yogyakarta State University, in carrying out the business management of Pasar Bahulak Tourism Village in BUMDES Sinar Karungan Mandiri, it is necessary to get support and availability of technology. The results of the research are intended to increase knowledge for the people concerned. Karungan Village Plupuh District has the potential for pineapple products and businesses which are indicated by the existence of production innovation opportunities and increasing the economic value of products that can be used as elements of product novelty based on the potential of local natural resources, namely by developing the design and utilization of pineapple plants as a characteristic of the product to be marketed. Locally in Bahulak Market as well as national and even international markets.

Keywords (separated by '-') village-owned enterprises - pineapple fiber - production innovation



Development Strategy of Sinar Karungan BUMDes and Pineapple Fiber Processing in Karungan Plupuh Village, Sragen

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Abstract. This study aims to solve the problems faced by business actors in the Financial Management of BUMDes SINAR Karungan Mandiri located in Plupuh District. One of the objectives of establishing a Village Owned Enterprise (BUMDes) in Karungan Village, Plupuh District, Sragen Regency, is to support the economy of the community, including the Bahulak Market business actors in Karungan Village, Plupuh District, Sragen Regency. Based on the results of a survey conducted by a research team from Sebelas Maret University, Surakarta and Yogyakarta State University, in carrying out the business management of Pasar Bahulak Tourism Village in BUMDES Sinar Karungan Mandiri, it is necessary to get support and availability of technology. The results of the research are intended to increase knowledge for the people concerned. Karungan Village Plupuh District has the potential for pineapple products and businesses which are indicated by the existence of production innovation opportunities and increasing the economic value of products that can be used as elements of product novelty based on the potential of local natural resources, namely by developing the design and utilization of pineapple plants as a characteristic of the product to be marketed. Locally in Bahulak Market as well as national and even international markets.

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1 Introduction

Karungan Village is located in the north of Plupuh District at a distance of ± 5 km and ± 15 km from Sragen, with an area of 305.4225 ha and is located in a strategic geographical location between Regency City [1]. Therefore, Karungan Village is very developed, especially in Plupuh District. The Karungan Village Government established a Village-Owned Enterprise (BUMDes) under the name BUMDes Sinar Karungan

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Mandiri since 2017. One of the objectives of establishing BUMDes in Karungan Village, Plupuh District, Sragen Regency, is to support the economy of the community, including the Bahulak Market entrepreneurs, Karungan Village, Plupuh District, Sragen Regency. Sebelas Maret University College, Surakarta. find a solution that allows the Sinar Karungan Mandiri BUMDES entrepreneur in Karungan village to survive and cope well with the current situation.

Based on the findings of the research team from Sebelas Maret University, Surakarta and Yogyakarta State University, the management of Pasar Bahulak Tourism Village at BUMDES Sinar Karungan Mandiri needs assistance to obtain appropriate technology and availability is required. In addition, the average group of companies has limited information technology skills such as marketing activities, financial management, corporate governance, and product innovation.

Pasar Bahulak Tourism Village This village is famous for its grocery stores, batik crafts, convection and ATBM weaving, which are the main industries of Plupuh Sragen. However, when the COVID-19 pandemic hit the world at the end of 2019, the Pasar Bahulak tourist village in Karungan village, Plupuh sub-district was also affected. The decline in people's consumption and purchasing power has a major impact on the market demand for Bahulak in Sragen District, Plupuh District, Karungan Village. Given that there are still many people in Karungan Village who depend on the market for their livelihoods, serious efforts are needed to overcome this situation.

The initiative of this research team aims to help solve problems faced by business actors in managing BUMDes Sinar Karungan Mandiri in Plupuh District. Sebelas Maret University collaborates with various stakeholders to provide training and assistance in processing pineapple fiber, pineapple fiber fabrics, and fashion products from upstream to downstream of pineapple fiber textile products.

Details of the objectives of this study is develop the Sinar Karungan Mandiri BUMDes management in Karungan Plupuh village.

2 Method

The activities developed are in the form of socialization and training in the context of increasing public knowledge with the following descriptions:

- 1) socialization and training on management and cultivation of pineapple plants [2],
- 2) socialization and training on appropriate technology for ATBM weaving,
- 3) socialization and training on the programs of the People's Economic Empowerment Institution (LPER) in order to improve the people's economy as well as the delivery of material on BUMDes financial management and marketing management, and
- 4) socialization and training on design innovation of ATBM pineapple fiber weaving.

In the implementation of this development activity, the community itself plays an active role as follows:

- a) Socialization Stage: the community participates in preparing the place, facilities and infrastructure for the socialization of activities,

- b) Implementation stage: the community plays a role as participants and at the same time assists in the preparation and implementation of the program, starting from the preparation of the place, tools and materials that will be used in the activity,
- c) Evaluation stage: at this stage the community helps monitor the implementation of the science and technology application program, identify problems encountered during preparation/socialization, implementation, and evaluation.

3 Result and Discussion

Business development opportunities for pineapple fiber products are still wide open with the innovation of fiber product raw materials management. Karungan Village in Plupuh, Sragen Regency has market potential for pineapple fiber products. This is indicated by the existence of opportunities for production innovation and economic value enhancement of products that can be used as elements of product novelty by utilizing the financial potential of the product. Local natural resources. The potential is the development of the design and use of the pineapple tree like the product features, which will then be sold domestically in the market.

Bahulak as well as national and even international markets. It aims to increase public understanding of local potential as raw materials for products.

The development potential to increase the use of pineapple fiber and develop the Bahulak market is very suitable for the villagers of Karungan Pluluh, Sragen. This is based on the potential of Karungan village, which has many pineapple trees but has not been widely used due to lack of knowledge of the community. Previously, pineapple trees only took fruit. While plants just become garbage. The natural conditions and temperature/humidity in Karungan village are very favorable for the good growth of pineapple trees.

Furthermore, this community service activity is complemented by training on product design and innovation from pineapple fiber as well as training on business development and financial management so that it can cover the initial to the very end of the activities in the community. The following is an overview of the process from pineapple plants to products that can be produced from pineapple plant fibers.

Figure 1(a) shows a plant with ripe pineapples harvested for direct sale or for sale in processed form (sales, pasta, chips, etc.). Figure 1(b) shows the pineapple leaves that have been harvested. Pineapple plants will only bear fruit once and after the fruit is harvested, the plant will not bear fruit again. If not used, pineapple leaves will only become garbage. Figure 1(c) shows the utilization of pineapple plants. The leaves are cut and sorted for further processing so as to provide additional income for the community. Thus the pineapple plant can be of economic value. Figure 1(d) shows the fiber extraction process from pineapple plants/leaves. Pineapple leaves are taken fiber for further processing by the process of scraping. Figure 1(e) shows the process of drying pineapple fiber in the sun to minimize the moisture content so that later when it is processed into a product it is not easy to decompose because the material is completely ripe. Dry. Figure 1(f) shows pineapple fiber that is ready to be processed into products according to the creativity of business actors. Figure 1(g) shows ATBM technology that can be used to process pineapple fiber into woven products. The use of ATMB is very practical and certainly

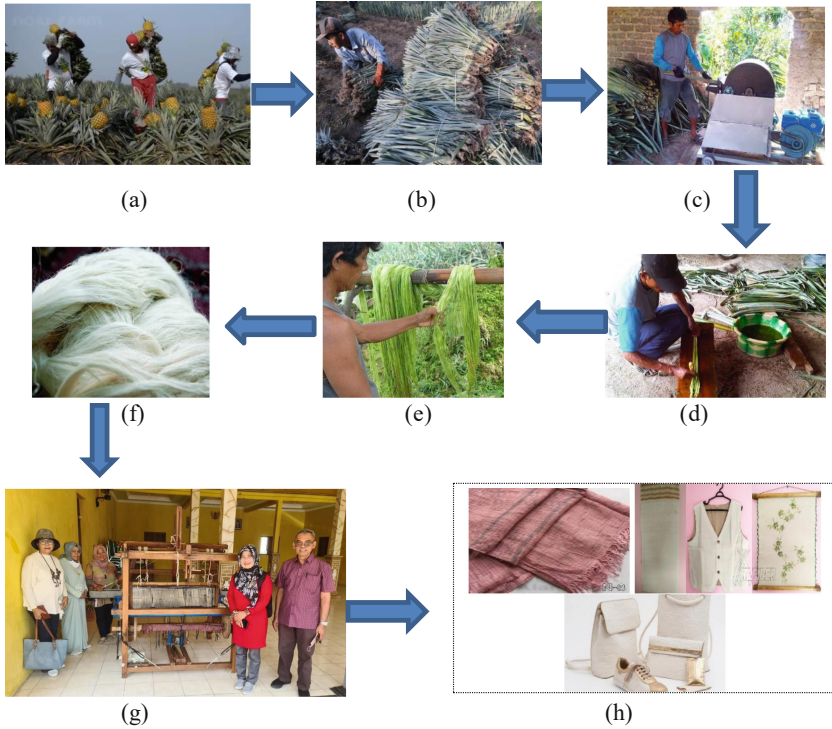


Fig. 1. The process of pineapple leaves into products

environmentally friendly because it does not use fuel that can leave residues that can damage the environment. The existence of ATBM has also been widely used in other areas. One of them is in Lombok, West Nusa Tenggara. The use of ATBM will further help maintain the quality of the fabric while maintaining the cultural values of the Indonesian nation. Figure 1(h) is a picture of pineapple fiber products. The product can be in the form of fashion or crafts. Fashion can be in the form of cloth and clothes, belts, bags, shoes, and so on. For handicraft products, it can be in the form of tissue holders, baskets with various models, and so on. These products are clearly of very high quality because the pineapple fiber material produced is not easily broken and can be used for a longer period of time. In addition, products that use pineapple fiber can still be developed more varied because the pineapple fiber material is very flexible.

The attendees were very enthusiastic to participate in this product development. With clear product description and guidance and companionship of knowledgeable parties, this has stimulated public interest to further develop pineapple trees in Karungan Plupuh village area, Sragen.

The speaker provided information on pineapple development, pineapple fiber product development and financial management training so that the pineapple fiber business could grow better with proper and proper management [3].

Pineapple seedling management document generally includes an overview of:

- Pineapple fiber has very high potential as an industrial raw material where Karungan Plupuh Village, Sragen has the opportunity to grow/use pineapple [4–6].
- Tillage includes preparation, clearing.
- Creating beds, liming and fertilizing.
- The planting system must be considered before planting.
- Pineapple plant maintenance including pembumbunan, fertilizing and basic monitoring, watering 1–2 times per week.
- Weeding, tilling and stimulating flowering with ethylene gas, calcium carbide and ethrel.
- Harvesting after the tree is 1–1.5 years old and mature leaves can be removed
- Harvesting pineapple is done in two ways, that is by hand (manual) or by peeling equipment.
- Provision of land for edutourism in Bahulak Market tourism village.
- Pineapple cultivation skills for Bahulak Market tourism education.
- Queen type pineapple planting.
- Maintenance handling
- Simplex pineapple plants.
- Post-harvest handling of pineapple plants.

General financial management records including an overview of:

- Village owned enterprises (BUMDes)
- Accounting and bookkeeping reports
- Financial statements, including semi-annual reports and annual report
- Basic Financial Statements of BUMDes
- Implementation of BUMDES Financial Management
- ATBM Educational Use of appropriate technology.
- Realization of Digital Marketing.
- Design innovation design development Park Management
- Improving the quality of Market Souvenir products Bahulak

Community Economic Empowerment Document provided by the President of the People's Economic Empowerment Institute (LPER) and usually includes an overview of how:

- Strengthen the capacity of the community to manage economic resources in order to achieve economic independence.
- Increase community competitiveness, productivity, and income.
- Cultivating entrepreneurship
- Reducing unemployment.
- Change your mind (mindset) towards more advanced.
- Enhancing the spirit of mutual cooperation.

Pineapple fiber product design and innovation documents typically include an overview of how:

- Products can be made from pineapple fiber materials.
- Using an ATBM.
- Targeting and marketing strategy for pineapple fiber products.

From this whole chain of activities, the Government of Karungan Plupuh Sragen has been following closely to create favorable conditions for the community, especially those related to the empowerment of land for pineapple cultivation and development of other products. Pineapple products. Thus, the overall goal of this enterprise can be achieved as end-to-end chain success in pineapple fiber management in Karungan Plupuh Village, Sragen Regency, Central Java province. In the period ahead, from this development activity it is expected to realize: one of pineapple cultivation agrotourism area in Bahulak Market BUMDes Karungan Mandiri, realization of BUMDes financial management, the realization of one (1) Bahulak Market ballet performance, website at BUMDes, and the realization of Edutourism for various kinds of products typical of the shoulder-to-shoulder market (tablecloths, wallets, bags, hats, small chairs, accessories).

4 Conclusion

From this activity, it can be concluded that the community still has a lot of potential around, especially in Karungan Plupuh village, Sragen Regency, which needs to be developed to get a lot of economic value. High economy. . However, existing conditions require the intervention of competent parties. One of them comes from academia, which involves creativity and innovation in product design. With this type of training activities, it is hoped that it can be a driving force for the development of variety and quality of products produced by MSMEs so that they can improve their living standards and economic level. Community. In this case, especially the development and management of pineapple fiber products to improve the living standards of people in Karungan Village, Plupuh, Sragen Regency.

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Chapter 22

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Abstract







Culture is an important aspect that must be implemented so as not to be eroded by the times. The purpose of this research is to preserve culture by utilizing technology in the form of digital learning, as well as an effort to improve the economy of the Banyuwangi Papring Environment community. This research is an applied research using data collection methods in the form of interviews, observations, and literature studies. This research was conducted at the Kampong Batara Banyuwangi Traditional School. The results showed that digital learning was able to arouse children's enthusiasm for learning. Digital learning developed contains the culture of the archipelago, traditional children's games, and local community SMEs. An important implication of the existence of digital learning is that there is an increase in the local community's economy which is increasing and buying MSME products which are presented in the Kampong Batara Traditional School gallery.

Keywords
(separated by '-')

Digital Learning - Nusantara Culture - Children's Traditional Games - Community MSMEs



Digital-Based Culture House in Efforts to Improve Community Economy in Papring Banyuwangi

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Keywords: Digital Learning · Nusantara Culture · Children's Traditional Games · Community MSMEs

1 Introduction

Culture is an aspect that cannot be separated from a country. However, the current culture has begun to be abandoned by the community. Efforts that can be made to preserve culture include the creative industry [1], the use of digital media technology [2]. Cultural preservation has become the focus of several parties, including the preservation carried out in Osing Banyuwangi [3], Culture in Tanah Lot and Borobudur [4], Typical Culture of Lumajang [5], Saronen Madura Culture [6], Balinese Mesatua Culture [2], and other cultures. Among several preserved cultures, awards from several parties were given to the preservation of Banyuwangi culture in Kampoeng Batara [1, 7].

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The results of a survey conducted in 2022 in Kampong Batara, Papring Environment, Banyuwangi Regency, East Java Province, there are main problems related to cultural preservation that are still not optimal. In this case, it is necessary to apply technology to support the preservation of this culture. Along with the planning concept carried out by the founder of Kampong Batara in cultural preservation, it can be done by making a digital-based Cultural House. This concept has been discussed with the local community, creative youth groups, farmer groups, pokdarwis, traditional schools, equality schools, and literacy schools. The digitalization that will be implemented is in the form of digital learning which is useful for the learning process of the children of the Sekolah Adat Kampong Batara.

The importance of applying technology in the form of digitalization is because it prevents destruction and encourages the importance of culture to the public through digital media. In addition, cultural heritage should not be lost due to rapid modernization [8]. The concept of digitization as an effort to preserve and save information about culture has developed in several areas including the Radya Pustaka Surakarta Museum [9], Karya Cipta Lontar [10], and the Cultural Heritage Building Juang 45 [11]. However, the process of digitizing culture that has existed so far is still limited to digitizing data, not yet as an active learning medium. Digitization developed in Kampong Batara is in the form of digital learning which covers all aspects ranging from the culture of the archipelago, children's traditional games, and local community SMEs.

Digital learning has been developed based on the theory of generations. This theory explains the importance of historical, cultural, and political events [12]. The implementation of digital-based learning is in accordance with the latest trends in the world of education [13]. This theory explains the characteristics of modern learning in the digital economy era [14]. Digital learning developed in Kampong Batara Banyuwangi is the development of the theory of generations. The development is carried out in the form of a non-formal learning system in which it discusses more about the culture of the archipelago, children's traditional games, and the local community MSMEs.

The purpose of this research is to preserve the culture of Banyuwangi by utilizing technological developments in the form of a digital learning-based cultural house, as well as an effort to improve the economy of the Banyuwangi Papring Environment community. The benefit of digital learning is that children who are members of the Kampong Batara Traditional School will have a lot of knowledge about culture and SMEs. The biggest hope is that culture will not become extinct, eroded by the times and the economy of the community will increase.

2 Methods

This research is an applied research that aims to solve the problems contained in the research location. In this case, it intends to apply the findings to solve specific problems that are currently happening in an organization [15]. Data collection methods in this study used interviews, observations and literature studies [16]. Interviews were conducted with parties who are competent in providing the information needed, namely the founder of Kampong Batara, the IT team, local community leaders, and university representatives. Observations are carried out by direct observation which is structured by preparing a

list of data requirements and data sources. Literature study is carried out by studying the results of previous research related to system development. The focus is limited to making a digitalization system (digital learning of Indonesian culture, children's traditional games, and MSMEs for the papring community) in an effort to improve the community's economy.

3 Results and Discussion

The digitization process began with a discussion with the founder of Kampoeng Batara as an effort to solve the problem of preserving Banyuwangi's culture and efforts to improve the economy of the Banyuwangi Papring Environment community. Digital learning developed in Kampoeng Batara in the form of archipelago culture, children's traditional games, and MSMEs of the Banyuwangi Papring Environment community. The result of the discussion between the founders of Kampoeng Batara, the private sector, and universities, that digital learning was developed in the form of the Papring Information System or SIPAPRING (sipapring.com). The developed information system includes 3 main features:

- a. Manage the latest information
- b. Managing digital learning media which is managed directly by Kampoeng Batara
- c. Managing handicraft products to offering / connecting to the marketplace so that they can be ordered by the wider community.

The contents of the digital learning developed include the main page, digital learning page, and product page. The main page consists of several contents ranging from digital learning materials, supporting facilities, SME products, news/blog news, YouTube videos and footers. The material/digital learning page is divided into 2 columns, on the left there is a list of materials by category (archipelago culture, children's traditional games, and MSMEs). On the right there is a content page from digital learning where there is a list of contributors, participants, and documentation. The product page is divided into 2 columns, on the left is the SME product search filter, on the right is a list of products offered, if website visitors click on the product image, product details will be displayed where transactions can be made directly or through the marketplace (Figs. 1, 2 and 3).

[AQ2](#)

After the system is formed, it is filled with materials related to the culture of the archipelago, children's traditional games, and MSMEs. The material about the culture of the archipelago developed into the website (sipapring.com) is in the form of the typical culture of Banyuwangi Regency, such as the Gandrung Batara Dance, Gamelan, Pencak Silat, Mocoan Lontar Yusuf, Bamboo Patrol, Kuntulan, Hadrah, and Jaranan Dance. The details of the Nusantara culture are as follows:

- a. Tari Gandung Batara
Tarian Gandrung is a typical Banyuwangi dance performed as an embodiment of the community's gratitude after the harvest. Gandrung is a performing art that is presented to the accompaniment of music typical of a blend of Javanese and Balinese cultures. This dance is one of the cultural forms of the Osing Tribe who is a



Fig. 1. Main Page Source: sipapring.com

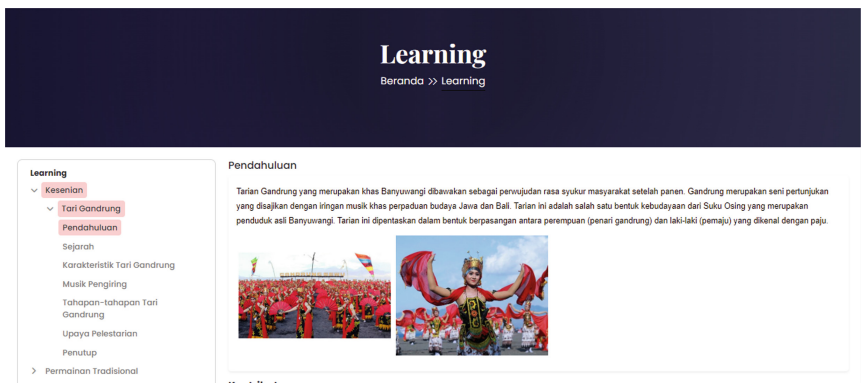


Fig. 2. Digital Learning Page Source: sipapring.com

native of Banyuwangi. This dance is performed in pairs between women (gandrung dancers) and men (advanced) known as paju. Gandrung is often performed at various events, such as weddings, sea pethik, circumcision, seventeen and other official and unofficial events, both in Banyuwangi and other regions. Usually, the gandrung show starts at around 21.00 and ends until dawn (around 04.00).

The types of gandrung dances are: Jejer Gandrung, Paju Gandrung, Seblang Subuh, Seblang Lukinto, Gandrun Dor, Gandrung Marsan, Gama Gandrung, and Jaripah. The style in dancing the gandrung dance is to form a square with the dancer in the middle. The gandrung will come to the guests who dance with him one by one with seductive movements, and that is the essence of the gandrung dance, which is infatuation or lust. The uniqueness of this dance is the clothing, the typical Gandrung Banyuwangi dancer's clothing, and it is different from other Javanese dances. There is a visible Balinese influence (Kingdom of Blambangan).

The clothes for the body consist of clothes made of black velvet, decorated with yellow gold ornaments, and shiny beads and in the shape of a bottle neck that are

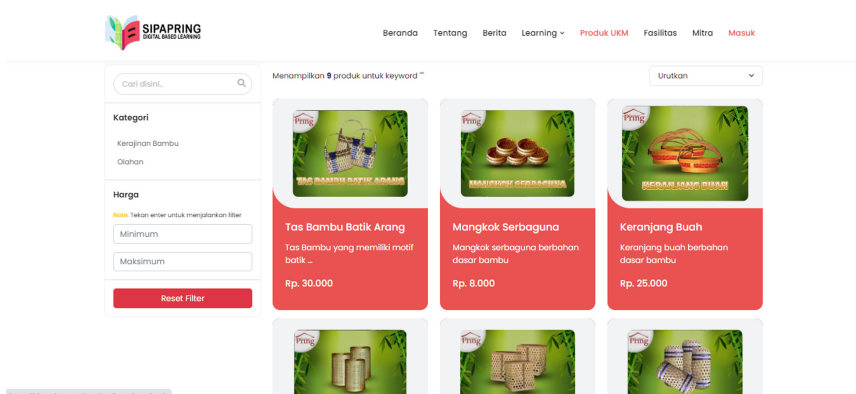


Fig. 3. Product Page Source: sipapring.com

wrapped around the neck to the chest, while the shoulders and half of the back are left open. There are 2 main properties in the gandrung dance, namely the shawl (sampur) and the fan. In the past, there were 2 fans used and held in the left and right hands. A dance property worn on the head called omprok.

b. Gamelan

Gamelan is a traditional Javanese, Sundanese, and Balinese music ensemble in Indonesia that has a pentatonic scale in the slendro and pelog scales system. Consists of percussion instruments used in karawitan music. The most commonly used instruments are metallophones including gangsa, gender, bonang, gong, saron, slenthem played by wiyaga using a hammer (batter) and membranophone in the form of drums played by hand. Also idiophones in the form of keanak and other metallophones are some of the commonly used gamelan instruments. Other instruments include the xylophone in the form of the xylophone, the aerophone in the form of a flute, the chordophone in the form of a fiddle, and a vocal group called the sinden.

A set of gamelan is grouped into two, namely the gangsa pakurmat and gangsa ageng. Gangsa pakurmat is played to accompany the hajad dalem (traditional karaton ceremony), jumenengan (the coronation ceremony of the king or queen), tingalan dalem (commemoration of the ascension to the throne of the king or queen), garebeg (ceremonies of important events), sekaten (ceremonies to commemorate the birthday of the Prophet Muhammad). Gangsa ageng is played as an accompaniment to cultural arts performances, generally used to accompany beksan (dance art), wayang (performing arts), uyon-uyon (traditional ceremonies/celebrations), and others. Currently, gamelan is widely used on the islands of Java, Madura, Bali, and Lombok.

The following is the division of groups on gamelan instruments:

- 1) The balungan group, which is a melody carrier whose sound is made of thick metal plates.
- 2) Its members are demung, saron, and pekingese.
- 3) Blimbingan group, which is a melody carrier whose sound-producing is a flat metal plate.
- 4) Its members are slendhem and gender.

- 5) The pencon group, which is a harmony carrier whose sound is in the form of a metal tube.
- 6) Its members are bonang, kethuk, kenong, and gongs.
- 7) The drum group, which is the bearer of the rhythm whose sound is produced by the leather sheet being beaten. Its members are various kinds of drums.
- 8) Complementary groups, namely the giver of decorations. Its members are flute, fiddle, siter, and so on.

The musical instrument in the gamelan is Kendang, Saron, Demung, Bonang (Bonang Panerus, Bonang Barung, Bonang Panembung), Kenong, Gong, Kempul, Gambang, Slenthem, Gender, Siter, Rebab, Suling, Kemanak, Gendrum.

c. Pencak Silat

Pencak silat is a martial art that pays attention to mental and spiritual aspects. Pencak silat is a form of Indonesian culture to defend themselves. In Southeast Asian countries, pencak silat is known as Silat. Pencak means the basic movement of self-defense. Meanwhile, silat means a perfect self-defense movement that comes from holy spirituality for self-safety from the Joint. The elements for self-defense with martial arts, namely by using punches and kicks. Pencak silat is a martial art that is in great demand by many people, especially the people of Indonesia. The parent organization of pencak silat in Indonesia is the Indonesian Pencak Silat Association (IPSI). The organization that accommodates the martial arts federations in various countries is the Association of Pencak Silat Between Nations (Persilat), which was formed by Indonesia, Singapore, Malaysia, and Brunei Darussalam.

One of the goals of practicing silat is to increase courage and reduce fear. Dare because it's true. You must be ready to attack or be attacked by the opponent. Those are some of the things that are experienced when learning pencak silat, so that our mentality is continuously trained step by step. The special characteristics of pencak silat are as follows:

- 1) Calm, limp attitude (relaxed, like a cat but alert).
- 2) Using flexibility, agility, speed, timing and the right target (accurate) with fast movements to control the opponent, not using force.

The equipment used is in the form of a pencak silat uniform, samsak, body protector, genital protector, footwear protector, skin decker, and mattress.

1. Mocoan Lontar Yusuf

Mocoan lontar yusuf is a tradition carried out by the Osing Banyuwangi tribal community in the form of reading Yusuf's lontar (manuscript). Lontar Yusuf itself is an ancient book written in Pegon script and contains the Book of the Prophet Yusuf. The form is in the form of traditional poetry bound by rules called pupuh. The total in Yosup's Lontar consists of 12 pupuh, 593 stanzas and 4,366 lines. In Banyuwangi, Lontar Yusup is the only ancient manuscript that is still "living" in local communities, especially in rural areas. Other ancient Banyuwangi manuscripts, such as the Kidung Sritanjung and various variants of the Babad Blambangan, are almost never read again today.

The story of Yusuf, which was written in the form of a song, had been created in various other areas of Java. However, Lontar Yusuf Banyuwangi has its own characteristics, both textual elements (story, vocabulary, and form of pegon script) and performance (music and reading rituals). Meanwhile, Yusuf's Lontar, until now, is still regularly recited or sung (poems sung) in front of the public in traditional rituals for saving the human life cycle (birth, circumcision and marriage) as well as annual village clean-up rituals. But in certain cases, it can also be held for an event to fulfill someone's tone. Several groups of readers of Lontar Yusuf also periodically, once a week, still hold readings of Yusuf's papyrus (mocoan) in turns at the homes of each member of the mocoan group, but not in full.

Yusup's complete Mocoan Lontar is usually sung at night, after the Isha prayer time (around 7 pm) until it ends before the dawn prayer time (around 3 am). In this mocoan event, a group of readers of Lontar Yusuf sat cross-legged, lined up in a semi-circle on a mat, then took turns singing the lines of Yusuf's poems in a variety of songs by the Osing Tribe, which differed from the tone of Javanese songs in general. Yusuf's text that was read was placed on a pillow, and alternately surrounded by the singers. Lontar Yusuf's mocoan session, as a ritual practice, also has special ritual procedures and instruments and is not just an ordinary song reading.

In principle, this traditional mocoan lontar activity is similar to a kind of recitation conducted by Muslims. It's just that in the recitation conducted by the residents of Kemiren Village, they use a book/papyrus in the form of ancient texts, in Old Javanese language, and inscribed with the Arabic letter Pegon, and use a rhythm similar to that of singing mocopat. In the life of the Using community in Kemiren Village, every time there is a community celebration (birth, circumcision, and marriage) this lontar reading activity is never abandoned, as a series of opening events. The equipment used is a book or papyrus manuscript.

2. Patrol Bambu

Patrol art is one of Banyuwangi's special types of music that is still alive and growing until now. Patrol art is a type of folk music that is more rhythmic in nature, without diatonic equipment. Patrol Bamboo art is also found in other areas with their own characteristics, including in Madura and Central Java. In the Banyuwangi patrol there is a kind of rhythmic patrol tool which in Using dialect is called gendhong. The tool functions like a drum in Banyuwangi angklung art or a cello in keroncong music. So the tool has an important function as a regulator of rhythm and rhythm. The gendhong beater must really know the rhythm and understand a lot of patrol game techniques. Patrol Banyuwangi folk music functions as a means of protecting village security from all kinds of dangers, and the word patrol which comes from the word patrol means 'watch around' or 'patrolling' while ringing rhythmic instruments made of large and small bamboo sticks, which When hit, it makes a different sound and is pleasant to hear.

The art of patrol Banyuwangi has its own characteristics. Traditionally, in the Banyuwangi area, during the month of Ramadan there is a custom every night after the tarawih prayer is held a patrol game around from village to village by teenagers and some are even adults. This habit no longer functions as a village guard or night patrol, but voluntarily and selflessly wakes villagers who are still sleeping soundly

and immediately wakes up to eat sahur. The typical Banyuwangi patrol art equipment is generally made of large and small bamboo segments that are sharpened and perforated in such a way that they can make a loud sound when hit. From the color of the beautiful sound, a group of young people tried to express their musical taste through this art.

3. Kuntulan

Kuntulan is one of the traditional dance arts that was born and developed in Banyuwangi. A dance which is actually an art that comes from various artistic creativity. Creativity that tries to combine art that was born and developed in the world of Islamic boarding schools in the form of Hadrah art with a typical art from Banyuwangi, namely the Gandrung dance. The movement in the kuntulan is divided into four steps, namely one step at a time walking while turning, jumping right and left, and respectful movements. The naming of this kuntulan is based on the performance of the dancers of this art, in which all the players, both musicians and dancers, are all men who wear white shirts, white pants and wear caps (black cap). The use of socks and gloves for the dancers is also similar to the egrets that are usually found in the fields. This kind of costume is the initial costume commonly used by kuntun dancers.

The philosophical meaning contained in this dance is the white color of the egret's feathers and the color of the dancer's clothes which have white color illustrates holiness. Movement of the head forward and backward also describes the movement of the head of the person who is dhikr. This is also accompanied by the position of the two hands in front of the chest which resembles the beak of an egret. The musical instruments used are lying and kluncing. While the equipment worn on the top of the dancer's clothes is yellow with flower decorations on the headgear and gloves. While the bottom wearing socks.

4. Hadrah

Hadrah Al- Banjari is the art of reading sholawat and praise to the Prophet Muhammad accompanied by a flying musical instrument/tambourine that is hit by hand with various punches, resulting in a serene musical rhythm. The function of hadrah art music is as a means of ceremony, communication, entertainment and culture (a characteristic of local culture) among the Sambas Malay community. Musical instruments in one set consist of 4 tambourines or banjari, bass, tam or tung, calti, and 3 marawis or keprak. Hadrah is a type of tambourine music that has historical relevance during the spread of Islam by Sunan Kalijaga, Java. Because of its interesting development, this art is often held at events such as the birthday of the prophet, isra'j miraj, or celebrations such as recitations, weddings.

5. Tari Jaranan

Tari jaranan is the name of one of the traditional dances typical of the province of East Java. This dance is hundreds of years old and is performed by dancers riding horses made of bamboo. Taken from the story of the community that has developed, the Jaranan dance tells about the marriage between Klono Sewandono and Dewi Songgo Langit. Meanwhile, the dancers who ride the horse property when performing the Jaranan dance are a group of soldiers who accompany the wedding. There are several functions of this jaranan dance, such as performances, ritual events and other aesthetic functions. Musical instruments to accompany the dance are kenong,

drums, gongs, kempul trumpets, and kecer. The properties used include lumping horses, whips, scarves, machetes, anklets, bracelets, and headbands.

In addition to the culture of the archipelago, digital learning is also being developed in the form of traditional children's games in Kampoeng Batara Banyuwangi. The details of the game are Stilts (ordinary, shell, whip), Gasing (bamboo, wood, block), Petak Hide and Seek, Pateng Dudu, Slodoran, Engklek, Gledekan, Seltok, Kemplut, Leker, Karet, Tepil, Banbanan, Yoyo, Killing, Bekel-bekelan ball, Kencring, Pantel, Puk-Karupu'an, Pos Katapos, Jejejan, Using Quartet, and Dakon.

The content of digital learning is also in the form of MSME products from the Papring Banyuwangi community. The products are in the form of typical Papring Banyuwangi batik, Bamboo Crafts, and Coffee. The three products are described as follows:

- a. The typical papring batik has the characteristics of bamboo and bamboo leaves which are innovated with the elephant oling motif.
- b. Bamboo crafts produced in the form of bamboo cups, bamboo lanterns, besek, bamboo tables, angklung, gedeg, trays, waste baskets, bamboo bags, ashtrays, wakul, songkok, flower pots, and so on.
- c. The coffee produced is the original result of the Papring community who has their own coffee plantation and is processed into 2 products, namely robusta coffee and excelsa.

Digital learning developed at the Kampoeng Batara Banyuwangi Traditional School will later be accessible to children who come both from Kampoeng Batara and from formal educational institutions. They will be able to learn through the website www.sipapring.com about the culture of the archipelago, traditional children's games, and local community MSMEs. The material presented in digital learning is not only in the form of narration, but also in the form of videos and photos which are the actual picture.

The results of the digital learning system have made an important contribution to the development of theory of generations [13, 14]. This theory provides important implications for cultural preservation through digital learning at the Kampoeng Batara Traditional School Banyuwangi. And the existence of a digital learning system can increase people's income through the products presented in the existing gallery of Kampoeng Batara. This gallery only sells products produced by the papring community. The management of the sales proceeds by the community group managing the Kampoeng Batara Traditional School and part of the income is used for the operational costs of the Traditional School. The income of the community is increasing along with the existence of a new product in the form of typical papring batik which is of interest to visitors.

4 Conclusion

The conclusion of this study is that the digital system-based cultural house that is applied is very useful for learning the children of Kampoeng Batara Banyuwangi. The real implementation is that children and visitors can at the same time learn the culture of children's games, crafts, and national culture. There has been a fairly high increase

in visits to the digitization system. Visits in Kampong Batara have also increased, especially for visitors who want to learn about culture.

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aims to prove the effect of profitability, leverage, and firm size on tax avoidance. This study is quantitative, the population of this study is manufacturing companies listed on the Indonesia Stock Exchange (IDX). The sample was taken using purposive sampling, and the sample companies were 28 companies from 2019 to 2021, with 84 units of analysis in the form of financial statements, analyzed using SPSS. The results showed that profitability as proxied by Return on Assets (ROA), and firm size affect tax avoidance, while leverage as proxied by the Debt to Assets Ratio (DAR), does not affect tax avoidance.

Keywords
(separated by '-')

Profitability - leverage - company size - tax avoidance - Covid-19 pandemic



Tax Avoidance During the Covid-19 Pandemic in Manufacturing Companies

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Abstract. Companies take advantage of tax avoidance by deviating or taking advantage of loopholes in the tax law to minimize taxes that must be paid to increase revenue, especially during the Covid-19 pandemic. This study aims to prove the effect of profitability, leverage, and firm size on tax avoidance. This study is quantitative, the population of this study is manufacturing companies listed on the Indonesia Stock Exchange (IDX). The sample was taken using purposive sampling, and the sample companies were 28 companies from 2019 to 2021, with 84 units of analysis in the form of financial statements, analyzed using SPSS. The results showed that profitability as proxied by Return on Assets (ROA), and firm size affect tax avoidance, while leverage as proxied by the Debt to Assets Ratio (DAR), does not affect tax avoidance.

[AQ1](#)

Keywords: Profitability · leverage · company size · tax avoidance · Covid-19 pandemic

1 Introduction

One indicator of a good citizen is obedience in paying taxes, which is a manifestation of compliance in carrying out the obligations and participation of taxpayers directly and jointly for state financing and national development. Taxes are people's contributions to the state which are deposited into the state treasury as regulated in Article 1 of the Law of the Republic of Indonesia Number 28 of 2007. In practice, non-compliance in paying taxes is still common, whether carried out by individual taxpayers or companies or entities. Individuals or companies do tax evasion to get a significant increase in profits or income. Tax avoidance itself is a legal action taken by the company is looking for loopholes to reduce revenue recording, to reduce the tax liability that must be paid. Tax Avoidance is legal and does not violate the law. However, taxpayers sometimes take advantage of irregularities or loopholes in tax laws to reduce the amount of tax that must be paid.

The Coronavirus Disease (Covid-19) pandemic forced the Government to limit social mobility in all circles of society, the impact of this policy was based on BPS (Central Statistics Agency) saying that Indonesia was experiencing a significant economic recession. In this case, the tax sector also experienced a significant decline because many companies suffered losses. As a rule of the Indonesian economy that cannot be separated from the role of taxes, taxes make a major contribution to the country, because of its strategic geographical location, Indonesia is a means of world trade and transportation, and the status of Indonesian people is very consumptive [1]. In this case, the tax sector is quite profitable for Indonesia [2].

In addition to the above, tax supervision has also decreased due to the work-from-home policy being a factor for tax avoidance so supervision is a little looser than usual, in this case, the tax-intensive provision will be completed as soon as possible and will increase tax avoidance from many companies. This situation is supported by the company's internal motivation which assumes that taxes are a burden, consuming large profits, and encouraging shareholders to take tax avoidance actions and increase company value [3].

Efforts to avoid tax during the Covid-19 pandemic are carried out by companies to get big profits but do not contribute to public services. This condition occurs in Indonesia, India, Brazil, Nigeria, and Bangladesh [4]. Many companies in Indonesia have taken tax avoidance measures. The action is influenced by several factors, these factors have been proven by several studies, namely research conducted by [5–8], which states that tax avoidance can be influenced by several factors, including profitability and leverage.

The greater the tax burden will have an impact on the decrease in the net profit of the company. Therefore, the company tries to minimize the tax burden so that the company's net profit does not decrease. This shows that the greater the company's ability to generate profits at high-profit levels encourages management to practice tax avoidance [6].

The second effect of companies to practicing tax avoidance is leverage. Leverage aims to show how much debt the company has to finance its operating activities. Companies that have a high level of debt will endanger the company because the company has a very high burden and is difficult to get out of the debt burden, it can be categorized as extreme leverage [9].

Large companies are more likely to use their resources rather than using debt financing. Large companies will be in the government's spotlight so it will create a tendency for company managers to act aggressively or comply [10]. The larger the size of the company, the company will consider the risk in terms of managing its tax burden. Companies that are included in large companies tend to have greater resources than companies that have smaller scales to manage tax. Human resources who are experts in taxation are needed so that the tax management carried out by the company can be maximized to reduce the company's tax burden. Small-scale companies cannot optimally manage their tax burden due to a lack of experts in taxation [11]. The more resources owned by large-scale companies, the greater the tax costs that can be managed by the company.

This tax avoidance costs the state an estimated US\$ 4.86 billion per year or equivalent to Rp 68.70 trillion rupiahs. Corporations in Indonesia contributed US\$ 4.78 billion or Rp 67.60 trillion in losses from tax evasion, and the remaining US\$ 78.83 million or Rp 1.10 trillion came from individual taxpayers. Compliance with paying taxes can be

measured and compared with the amount of tax savings from tax evasion to reduce the tax burden [12].

The industry can use two ways to minimize the value of taxation but still follow the rules regarding taxes that are enforced by avoiding taxes. Second, by minimizing the value of taxation through the implementation of actions that are not in line with the law on taxes, namely tax evasion. To deal with the current pandemic conditions, the government does not turn a blind eye to the situation, the government makes policies regarding tax revenue as attached to the PMK or called the regulation of the minister of finance regarding the provision of tax incentives for those affected by COVID-19. The incentives are given for 6 months from April to September 2020. Tax collection in a pandemic situation is a problem for the company, most of the tax authorities or the government cannot tolerate this collection, while the tax for the company is mandatory as a deduction from net income, from this case the company usually looks for ways to make the company tax as small as possible. This has been considered natural for companies and considered legal, so the company managers took advantage of the government's tax incentives for tax avoidance during the Covid-19 pandemic. The government through the tax authorities is trying to reduce losses from tax evasion by monitoring transactions with unique relationships both at home and abroad [13]. To increase tax payment receipts, the government continues to strive to improve the tax system for the better because taxes are a source of financing in the administration of government, including currently one of them for financing the handling of COVID-19. However, by optimizing the government's way of optimizing tax revenue, the company will remain on its goal, namely minimizing the tax burden because the greater the profits obtained by the company, the greater the tax burden that must be paid by the company. This is a problem for companies and triggers companies to practice tax avoidance.

2 Theoretical Basis and Hypotheses Development

The macroeconomic theory focuses on the behavior of the economic agents related to the structure, performance, behavior, and decision-making of the economy as a whole (aggregate). This macroeconomic theory aims to provide an overview of how an economy functions and carries out its activities. Economic actors make decisions to improve company performance which is influenced by the overall situation. Likewise, in making tax decisions, companies try to make decisions to minimize tax costs by avoiding tax. In some companies, tax avoidance is carried out by taking advantage of loopholes in tax regulations, some even bypass and violate tax regulations. Tax avoidance by companies in the aggregate causes a decrease in state income from taxes.

The amount of tax to be paid is calculated based on Profitability describing the company's ability to earn profits through all existing capabilities and sources such as sales, cash, capital, and other asset management [14]. Profitability can be defined as a description of the company's financial performance in generating company profits from asset management [15]. Profitability can be measured using Return on Assets (ROA). ROA describes the ability of a company to earn a profit (see Formula 1). According to [14], the higher the profitability of a company, the higher the profit generated by the

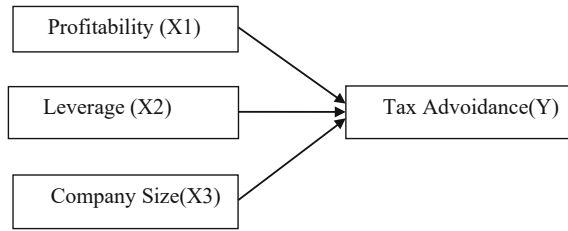


Fig. 1. Research Model

company. If the profit generated is more significant, then the tax to be paid is also higher.

$$\text{Return on Assets} = \frac{\text{Net Sales}}{\text{Total Assets}} \tag{1}$$

In addition to paying attention to profits, companies must also pay attention to the level of solvency/leverage. According to [15], solvency/leverage is the company’s ability to pay the long-term debt. Solvency can be calculated by comparing the company’s debt with capital and assets. A good company must have more capital than debt. The higher the level of leverage of a company, the greater the agency costs. Investors will consider this ratio because the high leverage value will affect the number of funds obtained by the company. The measurement of solvency/leverage uses the Debt to Assets Ratio (DAR) which is stated by [14] as follows:

$$\text{Debt to Assets} = \frac{\text{Total Debt}}{\text{Total Assets}} \tag{2}$$

The size of the company is suspected to affect tax avoidance. Company size can be interpreted as the size of the company seen from the amount of equity value, sales value, or asset value [16]. Company size is the size, scale, or variable that describes the size of the company based on several conditions, such as total assets, log size, market value, shares, total sales, total income, total capital, and others. Companies that have reached the maturity stage are companies that have large total assets, positive cash flows, and good prospects for a relatively long period time. The larger the size of the company, the greater the opportunity for tax avoidance [17].

Tax avoidance is a situation when a company takes certain tax policies that are considered legal by law or the action is risky if the tax action violates the law. In general, company owners tend to prefer to act aggressively in avoidance [18]. Several ways are carried out in the context of tax avoidance, namely, 1) taking advantage of regulations that ignore tax factors, and 2). Exploit legal loopholes for personal gain, and 3). Consult a tax consultant to get input on how to avoid tax, which then becomes a secret between the taxpayer and the tax consultant [17]. The Company Size formula is as follows (Fig. 1).

AQ2

$$\text{Company size} = \text{Total assets} \tag{3}$$

2.1 Hypothesis

The greater the profit earned by the company, the greater the income tax that must be paid. Management and company owners tend to reduce tax costs, tax avoidance is carried

out by making good tax planning so that it does not conflict with tax rules, as stated by [19] companies will try to reduce or minimize tax obligations carefully be careful by taking advantage of loopholes in tax provisions. Based on the description above, the hypotheses made are:

H1: Profitability has a positive effect on tax avoidance in manufacturing companies.

Debt is used in tax avoidance practices because loan interest can be used as a tax deduction [20]. The higher the amount of funding from third-party debt used by the company, the higher the costs incurred from debt, which will have an impact on reducing the company's tax burden. The higher the value of the leverage ratio, the higher the amount of funding from third-party debt used by the company, and the higher the interest costs arising from the debt. Research conducted by [21] and [22] finds evidence that leverage affect on tax avoidance. Besides that [23] found evidence that companies with low financial performance and low leverage ratios tend to do tax avoidance, while research conducted by [24] concluded that leverage is not related to tax avoidance. The results of this study contradict previous research; therefore, the researcher intends to repeat by proposing the following hypothesis:

H2: Leverage has a significant positive effect on tax avoidance

Research conducted by [23], concluded that larger firms with lower financial performance tend to evade tax. The results of this study are in line with research conducted by [25], which states that firm size increases corporate tax aggressiveness, and [17], who found evidence that firm size did not affect on reducing tax avoidance. Based on the research above, the researcher makes the following hypothesis:

H3: Firm size has a positive effect on tax avoidance in manufacturing companies

3 Research Method

This study uses quantitative analysis methods, the population in this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX), and samples were taken using purposive sampling. Sampling uses the purposive sampling method, which is a sampling technique for data sources with certain considerations (Sugiyono, 2018). The criteria used in determining the sample this time are the first manufacturing companies listed on the Indonesia Stock Exchange (IDX). Second; companies that present financial reports during the pandemic, namely 2019–2021. The data used is secondary data, in the form of financial statements. The sample used in this study was 28 companies, with 84 units of analysis.

4 Results and Discussion

Table 1 shows eighty-four data for each variable (N). The ETR variable (Y) with eighty-four data as samples reached a minimum value of -3.2511 and a maximum value of 3.1349 . During the period 2019–2021, the average value is $2.7769E0$, and the standard deviation is 0.8197050 . The mean value which is smaller than the standard value indicates that there is a divergence so that the spread of the data shows abnormal results and causes

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std.Deviation
ETR	84	-3.251	3.134	2.776	0.819
ROA	84	-3.746	1.926	-0.102	0.812
DAR	84	-3.121	1.901	-0.655	0.924
UP	84	2.075	3.134	2.916	0.217
Valid-N (listwise)	84				

Table 2. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.853	1.169		-0.730	0.467
	ROA (X1)	0.035	0.107	0.034	1.322	0.048
	DAR (X2)	0.071	0.093	0.080	0.761	0.449
	UK (X3)	1.260	0.400	0.334	3.151	0.002

bias. The ROA variable (X1) with a sample of eighty-four data reached a minimum value of -3.7465 and a maximum value of 1.9264. During the 2019–2021 period, the mean value is -0.101815, and the standard deviation is 0.8119774.

The mean value which is lower than the standard value indicates that the data deviation is high and the data distribution is uneven. The DAR variable (X2) with a sample of eighty-four data reached a minimum value of -3.1213 and a maximum value of 1.9016. During the 2019–2021 period, the average value is -0.654620 and the standard deviation is 0.924 1857. A lower mean value than the standard value indicates that the data deviation is high and the data distribution is uneven. The UK variable (X3) with a sample of eighty-four data reached a minimum value of 2.0759 and a maximum value of 3.1349. During the period 2019–2021, the mean value is 2.9161E0, and the standard deviation is 0.2173389. The mean value which is higher than the standard value indicates that the data deviation is low and the data distribution is even.

4.1 Multiple Linear Regression Analysis

The regression equation in this study serves to see how significant the independent variable is Return on Assets (X1), Debt to Assets Ratio (X2), and Company Size (X3) to the dependent variable, namely Tax Avoidance (Y). Based on the analysis using the SPSS version 17.0 program, the results (outputs) are shown in Table 2.

The analysis of Table 2 above produces multiple linear regression equations from the study as follows:

$$Y = -0.853 + 0.035 X_1 + 0.071 X_2 + 1,260 X_3 + e \quad (4)$$

Table 3. Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.351	0.123	0.091	0.217

Table 4. ANOVA

Model		Sum of Squares	df	Mean Square	F	sig
1	Regressi	6.887	3	2.296	3.757	0.014
	Residual	48.882	80	0.611		
	Total	55.769	83			

The regression equation can be explained as follows:

- 4.1.1. The constant has a negative value of -0.853, meaning that if the three variables are constant or zero then the value of Tax Avoidance is -0.853
- 4.1.2. The regression coefficient of Return on Assets is 0.035, which means that if the Return on Assets variable increases by one unit, then Tax Avoidance will increase by 0.035 units, assuming other independent variables remain.
- 4.1.3. The regression coefficient for the Debt to Assets Ratio is 0.071 which means that if the Debt to Assets Ratio increases by one unit, Tax Avoidance will increase by 0.071 units, assuming the other independent variables remain.
- 4.1.4. The regression coefficient for Company Size is 1.260, meaning that if the Company Size variable increases by one unit, then Tax Avoidance will increase by 1.260 assuming the other independent variables remain.

4.2 Coefficient of Determination Test (R²)

The coefficient of determination (R²) test assesses how accurately the model describes the dependent variable. The value ranges from zero to one. If the value is low, then the independent variable hardly explains the variation of the dependent variable. However, if the value is close to one, then the independent variable provides almost all the information needed to estimate the dependent variable. The results of the Adjusted R Square test can be seen in Table 3.

Table 3 shows that the coefficient of determination is found in the Adjusted R Square value of 0.123 or 12.3%. This result means that the accuracy of the independent variable in explaining the dependent variable is 12.3%, while the remaining 87.7% is explained by other variables not discussed in this study.

Based on the test results in Table 4 above, it can be seen at the significance level value of 0.014 < 0.05. This means that Ho is accepted and Ha is rejected, it can be concluded that the variables ROA (X1), DAR (X2), and Company Size (X3) together have no significant effect on tax avoidance.

Table 5. t-Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	B		
1	(Constant)	-0,853	1.169		-0.730	0.467
	ROA (X1)	0.035	0.107	0.034	1.322	0.048
	DAR (X2)	0.071	0.093	0.080	0.761	0.449
	UK (X3)	1.260	0.400	0.334	3.151	0.002

The T-test shows how significant the influence of the independent variable on the dependent variable is individually or partially. If the significance value is less than 0.05 and T count > T table, then the independent variable has a partial effect on the dependent variable. The results of the T-Test can be seen in Table 5.

Based on Table 5, the T-Test value is obtained as one of the results of the study. The significance value obtained by the Return on Assets (X 1) variable is $0.048 < 0.05$ and T count $-1.322 > T$ table 1.291. This result means that H_0 is rejected and H_a is accepted. Therefore, the Return on Assets partially has a significant effect on Tax Avoidance. The significance value obtained by the Debt to Assets Ratio (X2) variable is $0.449 > 0.05$ and T count is $0.761 < T$ table 1.291. This result means that H_0 is accepted and H_a is rejected. Thus, the Debt to Assets Ratio partially dose no affect on Tax Avoidance. The significance value obtained by the Firm Size variable (X3) is $0.002 < 0.05$, and the T count is $3.151 > T$ table 1.291. This result means that H_0 is rejected and H_a is accepted.

4.3 Discussion

Based on the test results that the significance value obtained by the Return on Assets variable ((X1) is $0.748 > 0.05$ and T count is $1.322 > T$ table 1.291. This result means that H_0 is rejected and H_a is accepted. Therefore, Return on Assets has a partial effect. Significant effect on Tax Avoidance. The results of this study are in line with research conducted by [6, 19] ROA, variable test results the results obtained to state that Return On Assets affects tax avoidance in manufacturing companies listed on the Indonesian stock exchange in 2019–2021, this can occur because the higher or increasing the profitability value of manufacturing companies, the greater the dominant cause of tax avoidance committed by the company. Companies with high profits should be able to pay more taxes than companies with low taxes, therefore companies with high profits will commit fraud against corporate tax payments.

The significance value obtained by the Debt to Assets Ratio (X2) variable is $0.449 > 0.05$ and T count is $0.761 < T$ table 1.291. This result means that H_0 is accepted and H_a is rejected. Thus, the Debt to Assets Ratio partially does not affect on Tax Avoidance. The results of this study are in line with the research of [6, 24], and [10]. This means that the higher the level of debt in manufacturing companies, the less likely the company is to do tax avoidance. This is because the company's debt to finance the company's operations is still on a normal scale.

The significance value obtained by the Firm Size variable (X3) is $0.002 < 0.05$, and T count is $3.151 > T$ table 1.291. This result means that H_0 is rejected and H_a is accepted. Therefore, firm size partially affects Tax Avoidance. Research result in line with research [6, 10, 25, 23, 17]).

The size of the company in manufacturing companies affects on tax avoidance, this means that the larger the size of the company, the greater the tax avoidance activity, because companies that have large assets are relatively large tend to be more profitable so they try to minimize the need for taxes.

5 Conclusions

This study tries to identify numerous elements that influence tax evasion during the Covid-19 pandemic. The analysis results demonstrate that Profitability proxied by ROA and Company Size has an effect on Tax Avoidance, but Leverage proxied by Debt to Assets Ratio has no effect on Tax Avoidance. These findings suggest that the higher the amount of profitability, the larger the probability of tax evasion by the corporation. Based on these findings, it is possible to conclude that the level of profitability is a significant element that favors corporate tax avoidance. This study shows that during the Covid-19 pandemic, entrepreneurs' motivation for tax avoidance increases. In practice, the findings of this study can serve as a guide for the government in conducting audits and urging corporate actors to comply with applicable tax rules.

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Chapter 24

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Abstract	<p>This study aimed to analyze the effect of debt literate, financial literacy, and financial wellbeing on SMEs performance directly and through financial experience. This research was conducted by visiting SMEs managers in Central Java, Indonesia. The total sample was 475 respondents who had answered the questionnaire completely. The data was analyzed using the model structure to determine the direct and indirect effects. The results show that the financial literacy variable has a direct and indirect effect through financial experience on the SMEs performance. The debt literate variable does not have a direct effect on it, but it has an indirect effect through financial experience. In addition, financial well-being has no effect on the SMEs performance either directly or through moderation of financial experience. These empirical findings provide evidence that SMEs performance can be improved through financial literacy, debt literate, and financial experience. There needs to be an increase in financial literacy and financial experience for SMEs owners in order to be able to understand every financial phenomenon that can hamper SMEs performance improvement. Further research is required to investigate the predictability of debt and financial literacy in enhancing SME performance using a different sample from several settings.</p>	
Keywords (separated by '-')	Debt Literate - Financial Literacy - Financial Wellbeing - Financial Experience - SME performance	



How Debt Literate and Financial Literacy Enhance Smes Performance: The Intervening Role of Financial Experience

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Abstract. This study aimed to analyze the effect of debt literate, financial literacy, and financial wellbeing on SMEs performance directly and through financial experience. This research was conducted by visiting SMEs managers in Central Java, Indonesia. The total sample was 475 respondents who had answered the questionnaire completely. The data was analyzed using the model structure to determine the direct and indirect effects. The results show that the financial literacy variable has a direct and indirect effect through financial experience on the SMEs performance. The debt literate variable does not have a direct effect on it, but it has an indirect effect through financial experience. In addition, financial well-being has no effect on the SMEs performance either directly or through moderation of financial experience. These empirical findings provide evidence that SMEs performance can be improved through financial literacy, debt literate, and financial experience. There needs to be an increase in financial literacy and financial experience for SMEs owners in order to be able to understand every financial phenomenon that can hamper SMEs performance improvement. Further research is required to investigate the predictability of debt and financial literacy in enhancing SME performance using a different sample from several settings.

Keywords: Debt Literate · Financial Literacy · Financial Wellbeing · Financial Experience · SME performance

1 Introduction

In the last decade, many studies have discussed financial literacy, including Adomako & Danso (2014) [26]; Eniola & Entebang (2016, 2017) [29]; Hogarth & Hilgert (2002) [8]; Kadoya & Khan (2017); Mutegi, Njeru, & Ongesa (2015) [28]; Yang, Ishtiaq, & Anwar (2018) [27]; Yap, Komalasari, & Hadiansah (2016); and Yap, Ying, Wei, & Vui (2017). This shows the importance of financial understanding because nowadays people are more easily accessing finance with various financial service features both online and offline. The existing facilities further increase competition between entrepreneurs and can increase business innovation and better business performance. Innovation and the creation of new ventures have long been the focus of researchers and scientists in

entrepreneurship and are claimed to have a positive impact on local, regional and national economic growth (Demirbas, Hussain, & Matlay 2011).

Good business performance shows that there are experienced individuals in their fields, especially in business finance. This has been widely proven by previous researchers that experience is important to have by individuals (Hankinson, 2000 [14]; Hogarth & Hilgert, 2002 [8]; Jarmin & Krizan, 2010 [13]; Jiang, Zhu, & Huang, 2013 [6]; Lusardi & Tufano, 2015 [15]; Man, Lau, & Snape, 2008; Matsunaga & Yeung, 2008 [7]; Reuber & Fischer, 1994 [11]). Experienced individuals in past events in a similar industry show higher productivity (Soriano & Castrogiovanni, 2012 [10]). Matsunaga & Yeung (2008) [7] also documented that a CEO who had served as Chief Financial Officer (CFO) could provide “good news” forecasts more precisely than a CEO with no financial experience. There are several cases of fail SMEs because of lack of experienced human resources. In Indonesia, only about 75% of SMEs practice management accounting and it depends on the owner/manager participation (Prihastiwati & Sholihin, 2018).

Researchers feel it is important to examine the SMEs performance and the literacy factors because performance is a measure of the success of a business. As an example and the recent phenomenon, data from the Ministry of Cooperatives and Small and Medium enterprises of the Province of Central Java, Republic of Indonesia, showing the SMEs performance in Central Java Province an increase up to Quarter III in 2018, reaching 52.867 billion rupiah. The increase in the SMEs financial performance was accompanied by the development of financial literacy which showed an increase from 21.84% in 2013 to 29.66% in 2016, according to the National Financial Literacy and Inclusion Survey Report from the Financial Services Authority (OJK in Bahasa). Related to the SMEs performance, financial literacy enables SME owners to be more experienced so they are wise in making business decisions. Individuals who are financially literate have two times lower borrowing costs (Huston, 2012) [39] and cause fewer financial problems (Taft, Hosein, Mehrizi, & Roshan, 2013) [34]. A survey conducted by Frijns, Gilbert, & Tourani-Rad, (2014) [38] revealed that people who have a lot of financial experience tend to be more financial literate.

Debt literate refers to individual skills in managing personal and business finances to avoid higher debt (Lusardi & Tufano, 2015) [15]. Low money management skills because of excessive debt raise financial concerns (Gardarsdóttir & Dittmar, 2012) [36]. They may experience financial problems because they bear a risky mortgage due to low debt literate (van Ooijen & van Rooij, 2016) [19]. To fill the research gap and assess the level of SMEs owners' knowledge about finance and debt, researchers design and conduct a new survey that focuses on debt literate, financial literacy, and financial wellbeing of SMEs' financial experience and performance. To achieve financial wellbeing is inseparable from financial experience as self-development (Drever et al., 2015). Agrawal & Harter (2010) suggest that a person may develop more than 1.5 times when someone lives in another household with higher financial experience. When an individual owns a large portion of a firm, his/her financial wellbeing may very much depend on the firm's performance and vice versa (Ferrer, 2012). Poor financial condition is one of the causes of people experiencing the effects of stress and financial pressure (O'Neill, Sorhaindo, Xiao, & Garman, 2005) [33] and decreased productivity (Taft et al., 2013) [34]. This kind of

situation will hamper the financial performance of the business due to unwell-being experienced.

Small and medium-sized enterprises performance has been widely associated with entrepreneurial knowledge, education, experience, human resource competencies, owner characteristics, banking services and financial literacy (Hudson, Smart, & Bourne, 2001; Omerzel & Antoncic, 2008 [3]; Soriano & Castrogiovanni, 2012 [10]; Anggadwita & Mustafid, 2014; Eniola & Entebang, 2016 [29]; Ndiaye, Razak, Nagayev, & Ng, 2018; Maziriri, Mapuranga, & Madinga, 2018). This study intends to determine the effect of debt literate, financial literacy, and financial wellbeing on the SMEs performance SMEs by considering the intervening effect of the owner's financial experience.

2 Literature Review and Hypotheses Development

Financial performance is one important element in the corporate reputation [1]. Financial position, unique competence, and entrepreneurship are very important for the long-term performance of small businesses (Grande, Madsen, & Borch, 2011) [2]. Financial performance can be explained by profitability and its growth in the last few periods, employee growth, sales growth, and market share [3]. A larger market share can reduce the likelihood of business failure [4]. The survival of organizations can be explained by their profit growth [5].

2.1 Financial Experience and SME Performance

Jiang et al. (2013) [6] & Matsunaga & Yeung (2008) [7] confirmed that business owners with financial experience tend to provide more accurate income information and higher quality financial reports. Financial experience refers to past background experience related to finance including (1) monthly checkbook reconciliation, (2) financial accounting systems, (3) managing emergency funds, (4) reviewing credit reports, (5) taxes, (6) and investment [8]. Álvarez & González (2017) [9] define financial experience as real-life practice in managing and utilizing money. Financial experience is a skill that was acquired in the past; in financial matters it is more precisely a matter of income and financial disclosure quality [6, 7].

Soriano & Castrogiovanni (2012) [10] in the results of their study showed that experienced individuals in the same industry showed higher productivity. The owner's experience directly contributes to the firm's performance [11]. Lack of experience in the past plays an important role in business performance (Dyke, Fischer, & Reuber, 1992 [12]; Jarmin & Krizan, 2010 [13]). Basically, human resources are based on the background, experience, and owner-manager knowledge [14].

H1: Financial experience have a positive influence on the SME performance

2.2 Debt Literate, Financial Experience, and SME Performance

Debt literate is literacy about conceptual knowledge related to debt [15]. The high debt owed by SME entrepreneurs and its relationship to the recent financial crisis raises

the question of whether the lack of entrepreneurs' financial knowledge makes their businesses become so wrapped up in debt that they are unable to pay it. Debt literate is related to financial behavior models, such as paying installments and credit cards. Debt literate refers to the skills, education, and knowledge of current information about debt management owned by an individual (Kariuki, Ogilo, & Mwangi, 2016) [16]. Lee & Mueller (2014) [17] defined debt literate as the ability to identify, understand, interpret, and navigate loan options, principles, and practices related to obligations. Debt literate is the ability to properly assess debt contracts and compound interest to make financial decisions correctly (Loke & Hageman, 2013) [18].

van Ooijen & van Rooij (2016) [19] found that the more people who are debt literate the greater the consideration of mortgage loans. In the same variable, Disney & Gathergood (2011) [20] document that people who have low a level of debt literate tend to show a higher level of debt than their wealth. Disney & Gathergood (2011) [20] and van Ooijen & van Rooij (2016) [19] agreed in their second research that debt literate in capturing knowledge and skills regarding debt concepts is more difficult than financial literacy which covers general financial concepts. Debt literate is also related to behavior in self-control. As mentioned by Achtziger, Hubert, Kenning, Raab, & Reisch, (2015) [21] in the results of their study that individuals who are low in self-control tend to have higher debt and individuals who are high in self-control tend to have lower debt.

H2: Debt literate has a positive influence on financial experience

H3: Debt literate has a positive influence on the SME performance

H4: Debt literate has a positive influence on the SME performance through financial experience.

2.3 Financial Literacy, Financial Experience and SME Performance

In the Indonesian Financial Services Authority Regulation (OJK) No 76 (2016), financial literacy is defined as the knowledge, skills and beliefs of decision making and financial management to achieve prosperity. Financial literacy comprises financial education, financial management, types of financial services industry, other financial products and services including benefits, costs, risks, customers rights and obligations, access mechanisms for products and other financial services, as well as other information related to transaction information. Financial literacy is a combination of financial and business awareness and knowledge, which consists of financial capability, management and planning [22]. Huston (2010) [23] referred to financial literacy and financial knowledge as human capital. Financial literacy is related to the cognitive abilities and education of individuals which can have an impact on financial activities and financial well-being [15, 24]. Financial literacy contains five concepts including financial knowledge, financial communication skills, financial management skills, financial decision-making skills, and financial planning beliefs [25].

In the business world, individuals who have higher financial literacy tend to be more involved in various financial practices and it has a positive impact on firm performance [26]. High financial literacy encourages risk management efficiency and firm performance [27]. Mutegi et al. (2015) [28] stated that in relation to SME debt repayment,

there are four skills in financial literacy that must be possessed by individuals, including credit management, bookkeeping skills, budgeting skills, and financial analysis skills. Eniola & Entebang (2016) [29] documented that financial literacy is knowledge, behavior, and financial awareness of individuals which has a positive impact on SME performance. Financial literacy can help individuals make more informed decisions and improve the financial performance of SMEs.

H5: Financial literacy has a positive influence on financial experience

H6: Financial literacy has a positive influence on the SME performance

H7: Financial literacy has a positive influence on the SME performance through financial experience.

2.4 Financial Wellbeing, Financial Experience and SME Performance

Prawitz et al. (2006) [30] defined financial well-being as the current financial situation, which is free from financial pressures and feelings of anxiety. Brüggén, Hogreve, Holmlund, Kabadayi, & Löfgren (2017) [31] formed a new framework of financial well-being that the core of an organization's financial well-being is the reputation or image of the firm, trust, and welfare. The welfare of employers and employees is a picture of the firm's performance success. Financial well-being is related to welfare in work, work ability, balance between work life and workplace, as well as material benefits and individual wealth [32]. Financial conditions can affect one's productivity. Poor financial conditions can have negative effects on individuals, depression, and financial pressures [33], and then productivity decreases [34]. In essence, the effects of stress and pressure arising from poor finance affect business performance because work cannot run effectively and efficiently. Mutang, Bahari, Lailawati, & Wider (2017) [35] stated that an individual's finances are said to be prosperous if the individual has few loans and can organize expenses well.

H8: Financial wellbeing has a positive influence on financial experience

H9: Financial wellbeing has a positive influence on the SME performance

H10: Financial wellbeing has a positive influence on the SME performance through financial experience.

3 Method

3.1 Data and Research Design

This research used a quantitative approach using primary data that was obtained from the result of questionnaires by SME owners in Indonesia and the research was conducted from September 2019 until March 2020. Of the many SMEs that were found to ask them to complete a questionnaire, only 475 SMEs' owners/managers who answered well. A structural model was formed to determine the direct effect, indirect effect, and total effect of each variable. Before analyzing the direct and indirect effects, the researchers tested

Table 1. Reliability, convergent and discriminant validity results

<i>Discriminant Validity</i>	DL	FE	FL	FWB	SP
– Debt Literate	0.751				
– Financial Experience	0.206	0.730			
– Financial Literacy	0.157	0.391	0.708		
– Financial Well-Being	0.069	0.082	0.146	0.724	
– SME’s Performance	0.176	0.605	0.385	0.119	0.810
<i>Cronbach’s Alpha</i>	0.595	0.817	0.693	0.629	0.864
<i>Composite Reliability</i>	0.791	0.870	0.798	0.766	0.904
<i>Average Variance Extracted (AVE)</i>	0.564	0.533	0.501	0.525	0.656

Source: Primary data, processed

the construct validity and reliability (see Table 1). The validity test in this study was the convergent and discriminant validity test. Then, data are analyzed using Structural Equation Modeling (SEM) analysis.

3.2 Measurement Variables

This study used a scoring system 1 to 3, score 3 for “true” answers, score 2 for “false” answers and score 1 for “don’t know” answers to each questionnaire statement. Measurement of variables adopted from various literature including Omerzel and Antoncic (2008) [3] for SMEs’ performance. There were 5 statement indicators measuring the financial performance of SMEs’ including firm profitability, average profitability of assets, average sales growth, average employee growth, and market share. For financial experience, this study adopted Hogarth and Hilgert (2002) [8] which was formed in 7 statements namely regarding reconciliation of check books, financial recording systems, review of financial statements, investments, taxation, and net worth of businesses. Whereas debt literate adopted from Lee & Mueller (2014) [17], namely knowledge about late payment of credit bills, credit application processes, types of credit and sources of funding. Financial literacy variable refers to OJK regulations and literature covering investment knowledge, inflation, benefits of managing personal finances, function of credit cards, withdrawal of deposit funds, and banking functions. And then for a financial wellbeing variable adopted from the study Mutang et al. (2017) [35]. The indicators used decide buy and save, difference between needs and desires, long-term financial planning, and financial conditions.

3.3 Validity and Reliability

The results of the loading factor, the research indicators correlated well with each research variable. The loading factor value of the research variable is 0.6111 to 0.946. There were several indicators omitted in the data processing process because they have

Table 2. Direct effect of exogenous variables, moderating variables, and endogenous variables

Hypothesis	Variable	Original Sample	T Statistics	P Values
H ₁	FE → SP	0.528	13.953	0.000
H ₂	DL → FE	0.147	3.140	0.002
H ₃	DL → SP	0.038	0.875	0.382
H ₅	FL → FE	0.366	9.641	0.000
H ₆	FL → SP	0.165	4.118	0.000
H ₈	FWB → FE	0.018	0.362	0.717
H ₉	FWB → SP	0.049	1.137	0.256

*Denotes rejection of the null hypothesis at the 0.05 level

Source: The result of data processing by SmartPLS

values that indicate the invalidity of the item (Debt literate: DL3; DL5; Financial Experience: FE5; Financial Literacy: FL2; FL5; FL7; FL8; FL9; Financial Well-Being: FW4; FW5; FW6; SME's Performance: SP3). In addition, Cronbach's alpha value indicated the value of each variable above 0.60, so the research instruments are reliable. Although the value of the debt literate variable was below the reliable line, composite reliability value showed a high value. Average variance extracted values indicate that all variables were valid, which was above 0.50. Likewise, the results of discriminant validity that all variables were valid.

4 Result

Table 2 and Fig. 1 showed that all exogenous variables directly affect financial experience, except financial wellbeing. Different results were shown by debt literate and financial wellbeing which showed no effect on the SMEs performance. These empirical results indicated that debt literate has a direct effect on financial experience, but has no effect on SME performance. High debt literate can bring SME owners to a higher financial experience and it does not lead to changes in SME performance. The direct effect is also shown by financial literacy on the financial experience and SMEs performance. SMEs that have better business performance tend to be more financial literate. This is also shown by SMEs who have high financial literacy tend to be more experienced. Different results are shown by financial well-being that has no influence, both on financial experience and SMEs performance.

There is an indirect effect between debt literate and SMEs' performance as shown in Table 3 (p-value = 0.02), even though debt literate has no direct effect on SME performance. The second variable also showed the indirect effect between financial literacy and SME performance. However, this effect is not demonstrated by financial wellbeing (p-value = 0.719). The results of this study indicated that financial well-being has no effect on changes in the SMEs performance either directly or indirectly. In addition, debt literate and financial literacy indirectly affect the SMEs performances.

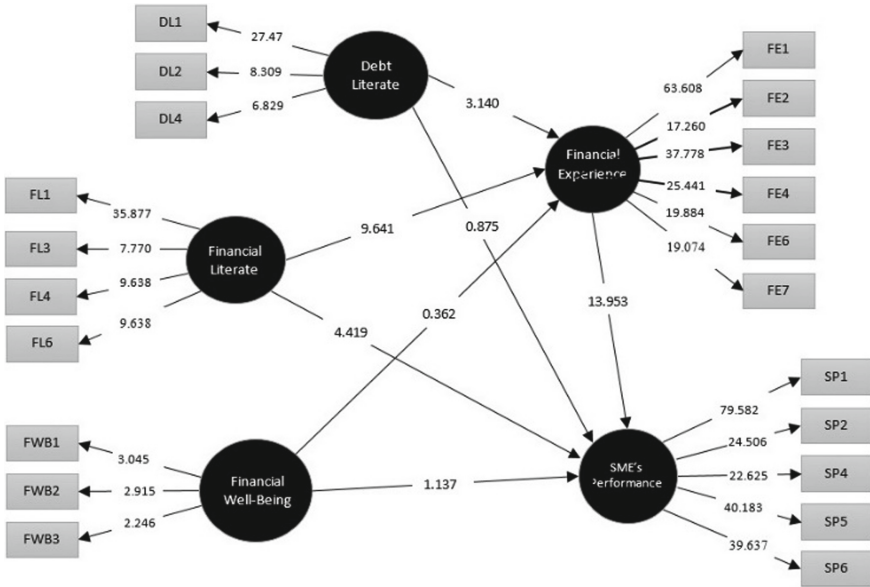


Fig. 1. Structural model of research (Source: The result of data processing by SmartPLS)

Table 3. Indirect effects of exogenous variables and endogenous variables

Hypothesis	Variable	Original Sample	T Statistics	P Values
H ₄	DL → SP	0.078	3.057	0.002
H ₇	FL → SP	0.193	8.106	0.000
H ₁₀	FWB → SP	0.010	0.360	0.719

*Denotes rejection of the null hypothesis at the 0.05 level

Source: The result of data processing by SmartPLS

To find out the influence between exogenous and endogenous variables, it can be seen from the total effect variables shown in Table 4. From the table above, it showed that all exogenous variables affect the financial experience and SMEs performance, except financial well-being. Financial experience has a positive effect on SME performance. These statistical results indicated that financial experience can be influenced by two literacy factors, debt literate and financial literacy, while the owner’s financial wellbeing has no effect. Debt literate and financial literacy affect the financial experience and SMEs performance. High or low levels of debt and financial literacy of SME owners can affect the ups and downs of business performance with much or little financial experience had in the past. It is different from financial wellbeing. This variable does not have an influence both for financial experience and SMEs performance.

Table 4. Total effect of exogenous variables and endogenous variables

Variable	Original Sample	T Statistics	P Values
FE - > SP	0.528	13.953	0.000
DL - > FE	0.147	3.140	0.002
DL - > SP	0.115	2.600	0.010
FL - > FE	0.366	9.641	0.000
FL - > SP	0.358	8.713	0.000
FWB - > FE	0.018	0.362	0.717
FWB - > SP	0.058	1.191	0.234

*Denotes rejection of the null hypothesis at the 0.05 level

Source: The result of data processing by SmartPLS

5 Discussion

5.1 Relationship Between Financial Experience and SME Performance

Statistical results showed that the hypothesis stating that there is an influence between financial experience and SME performance is accepted. This is in accordance with the results of the t-statistic value of 13.593 and a significant value of 0.000. This is in line with research of Reuber & Fischer (1994) [11] and Soriano & Castrogiovanni (2012) [10]. This study provided evidence of a positive relationship between financial experience and SME performance. Owners with low financial experience have had an effect on SME performance in recent years. A common problem for SMEs has always been fear of growth. From the questions answered in the questionnaire, most SMEs in Indonesia have low financial experience. None of them has an investment account in the capital market and only a few have investments outside the business that they are currently involved in. Then there are still many of them who do not have a financial recording system, and do checkbook reconciliation every month. From the taxation side, only a small portion of SME owners have a tax identification number and pay taxes.

This condition also impacts SME performance. The enterprise's profitability for the past 3 years has tended to decline. The decline in performance is also indicated by a decrease in the employees' quantity and sales in the last three years, although there are a number of SMEs that have a large market share. Past experience can be used as a provision in carrying out current and future obligations. Experience provides learning to be better at completing work and more aware of responsibilities. So, it is believed to be more productive and able to overcome obstacles. As mentioned by Hankinson (2000) [14] that experience is a key factor in playing the skills and abilities of owners/managers that affect firm performance. SME owners who have a lot of financial experience tend to ignore irrelevant information so that the owner is clearer in making business decisions and this will certainly have a positive impact on the SMEs performance. A similar statement is also shown by Jiang et al. (2013) [6] and Matsunaga & Yeung (2008) [7], which state that the financial experience of the owner influences the quality of financial reporting and disclosure of financial information.

5.2 Relationship of Debt Literate, Financial Experience, and SME Performance

The results of this study indicated that the SME owner's debt literate related to loans and risks influences the financial experience and SMEs performance. The study also documented that financial experience has successfully influenced the relationship between debt literate and SME performance. This is evidenced from the results of the regression which states that debt literate has no direct effect on SME performance. However, after financial experience has been included as a moderating factor between debt literate and SME performance, the result was that debt literate has an effect on SME performance as a result of the total effect showing a t-statistic value of 2.600 with a significance of 0.010. Researches of Achtziger et al. (2015) [21]; Gardarsdóttir & Dittmar (2012) [36]; Kariuki et al. (2016) [16]; and van Ooijen & van Rooij (2016) [19] showed that financial literacy is a mode of self-control over one's financial behavior related to loans (options, principles, and liability). This study also agreed with researches of Hogarth & Hilgert (2002) [8] and Montico (2010) [37] that healthier financial behavior is more likely to report on experience as a source for someone to act.

Debt literate associated with a person's financial behavior in dealing with loans and obligations will make someone more experienced in managing finances. If past experience is learning in the present and the future, then the experience will bring someone to be better. The results of this study are quite surprising. Based on the questions raised in the questionnaire, many respondents cannot distinguish between productive and consumer credit. Even though they are mostly aware of the credit application and survey process, they cannot show financial reports or sales notes to banks. Thus, the debt literate of SME owners is still low. It then impacts on their lack of experience in the financial sector so that the business does not develop due to stagnant performance. Based on respondents' answers to the statement "If I am late paying a credit bill, then it will be easier for me to take out a loan", this is in accordance with the actual conditions experienced by about 50% respondents who take out a loan. According to them, the history of smooth or late payments does not prevent them from taking out more loans. This might make the owner as the borrower of the fund indifferent to the responsibility which shows the level of the owner's debt literate. In accordance with Kariuki et al. (2016) [16] and Disney & Gathergood (2011) [20], that poor debt literate affects individual debt behavior that tends to lead to excessive debt.

5.3 Relationship of Financial Literacy, Financial Experience, and SME Performance

The findings of this study indicated that financial literacy has a positive effect on the financial experience and SMEs performance, both directly and indirectly. These results agreed with studies of Frijns et al. (2014) [38]; Huston (2012) [39]; and Taft et al. (2013) [34] that financial literacy allows individuals to have more financial experience, lower borrowing costs, and cause less financial problems. In relation to performance, the results of this study concurred with the research of Adomako & Danso (2014) [26]; Eniola & Entebang (2016) [29]; Mutegei et al. (2015) [28]; and Yang et al. (2018) [27]. Owners with good financial literacy will encourage improvement in SME performance. This is also supported by the regression results that show a t-statistic value of 8.713 and

a significance value of 0.000. This value indicated that the owner's financial literacy is positively related to the SMEs performance through the financial experience of the owner. Thus, financial experience also moderates the relationship between financial literacy and SME performance.

Financial literacy in this study is associated with investment knowledge, inflation, the ability to manage personal money and the use of credit cards that can demonstrate one's financial experience. With their financial experience, owners tend to be more careful in making financial decisions so that the targets for achieving financial performance can be met. The results of this study document that most SME owners do not understand well the definition and function of investment, the impact of inflation, and the function of the banking and the products offered. However, almost 90% of respondents believe that the benefits of financial literacy are the ability to manage personal finances to protect themselves from the risk of fraud and can improve financial levels. This is evident in the question "Investment in banking is only in the form of interest earned from savings only," and most of them answer that they do not know. For this reason, SME financial experience is still poor. The long effect is stagnant performance or even continues to decline until bankruptcy. Frijns et al. (2014) [38] revealed that financial experience shows the level of individual financial literacy. Financial literacy instills credit management skills, bookkeeping skills, budgeting skills, and financial analysis skills to improve business expansion in order to improve the SMEs performance [28].

5.4 Relationship of Financial Wellbeing, Financial Experience, and SME Performance

If debt literate and financial literacy have a positive effect on SMEs' financial experience and performance, it does not happen to financial wellbeing. The results of this study indicated that there is no influence between financial wellbeing with financial experience and SME performance. This study rejected some researches which indicate that poor financial conditions cause productivity to decrease [34] and cause financial problems [32, 33]. The absence of a relationship between financial wellbeing and SME performance is evidenced by the results of the total effect t-statistic value of 1.191 and the significance value of 0.234. These results explained that the prosperity or destitution of the owner does not have an impact on the increase or decrease in the SMEs performance. The main statement also raised in the questionnaire question states that financial conditions limit a person's ability to do something important and more than 90% of respondents justified it. However, on the other hand, the financial experience of owners was very low and their sales have tended to decline in the last three years even though most owners felt that they have achieved financial prosperity.

Research results indicated that the owner's financial wellbeing does not affect much or the least financial experience and SMEs performance. In this study, financial wellbeing was aimed at SME owners as seen from consumptive behavior including caution in buying and determining long-term financial plans. The results of this study documented that SMEs prefer to save money rather than spend it. They are accustomed to buying things with careful consideration and in accordance with needs. This cautious attitude makes SME owners not dare to accept risks so they are not experienced enough with financial products and services. There is no relationship between financial wellbeing

and performance because the owners' financial wellbeing tends to be in their personal affairs rather than related to their business scope. The owner's financial wellbeing is not an obstacle as long as the employee's welfare is guaranteed. As explained by Page and Vella-Brodrick (2009) [40], they stated that employee welfare is closely related to retention links and performance. The welfare of the owner tends to be personal, while the welfare of the employee is directly related to the conditional business operations.

6 Conclusion

The results showed that the financial literacy variable has a direct and indirect effect through financial experience on the performance of SMEs. The debt literate variable does not have a direct effect on the SMEs performance, but has an indirect effect through financial experience on it. In addition, financial wellbeing has no effect on the SMEs performance either directly or through moderation of financial experience. These empirical findings provide evidence that SME performance can be improved through financial literacy, debt literate, and financial experience. Therefore, it is necessary to increase financial literacy and financial experience for SME owners in order to understand every financial phenomenon that can hinder the improvement of SME performance. The practical impact of this research encourages SME owners to learn more about financial management, and to be involved in the financial process to be able to detect potential losses early on in their business. A good understanding of debt along with financial management capabilities can help a firm improve its business performance. It is also very useful when enterprises need additional investment or when there is a lack of liquidity, or business capital in developing business.

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Abstract

The purpose of this study is to determine the development of research on the KPKU which has been used as a measuring tool in assessing the performance of SOEs. The KPKU referred to in this case is a performance assessment based on the Malcolm Baldrige criteria. The development of research on this performance assessment uses the connectedpapers.com application. The results of the screening obtained in the form of tables and images are then described according to the data obtained. This study shows that research using the KPKU as a public sector performance measured is still limited, especially research with objects in Indonesia, so that research on performance measure using the KPKU is still possible to be developed further. Suggestions for future research can further explore how the results of the performance assessment using the KPKU are and the differences in implementation in the public and private sectors. The implication of this research is that the performance measure using the KPKU still needs to be improved, because the results of the study illustrate that the KPKU has not been implemented comprehensively. The limitation of this research is that it has not been able to provide a detailed description of the variables that have developed along with the development of research related to the KPKU. The novelty of the research is that literature reviews using the connected paper application are still rarely carried out, where the results can provide an overview of research developments in a more interesting and understandable way.

Keywords
(separated by '-')

Performance - Public Sector Enterprises - KPKU - Connected Paper



KPKU as a Tool for Measuring Company Performance, a Literature Review

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Abstract. The purpose of this study is to determine the development of research on the KPKU which has been used as a measuring tool in assessing the performance of SOEs. The KPKU referred to in this case is a performance assessment based on the Malcolm Baldrige criteria. The development of research on this performance assessment uses the connectedpapers.com application. The results of the screening obtained in the form of tables and images are then described according to the data obtained. This study shows that research using the KPKU as a public sector performance measured is still limited, especially research with objects in Indonesia, so that research on performance measure using the KPKU is still possible to be developed further. Suggestions for future research can further explore how the results of the performance assessment using the KPKU are and the differences in implementation in the public and private sectors. The implication of this research is that the performance measure using the KPKU still needs to be improved, because the results of the study illustrate that the KPKU has not been implemented comprehensively. The limitation of this research is that it has not been able to provide a detailed description of the variables that have developed along with the development of research related to the KPKU. The novelty of the research is that literature reviews using the connected paper application are still rarely carried out, where the results can provide an overview of research developments in a more interesting and understandable way.

Keywords: Performance · Public Sector Enterprises · KPKU · Connected Paper

1 Introduction

Public enterprises are considered unprofitable due to poor management, strong political influence and unclear rules. In addition, there are gaps in political orientation, high political costs that are difficult to measure, over-investment and wastefulness, the availability of government facilities in the form of subsidies commensurate with costs. That the community has to endure, lack of sensitivity to the working environment. The trend of lack of competitiveness, slow action and slow decision-making by companies contributes to the loss of listed companies [1]. Meanwhile, Czech issuers continued to perform poorly or even negatively due to heavy bureaucracy and unclear corporate leadership. This is

consistent with the fact that Korean firms are influenced by the limiting factors of the socio-cultural environment rather than the political and legal environment. Several factors, such as inconsistent law enforcement and corruption among public officials, are considered limiting factors of the political-legal environment. Firms can improve their performance if they receive government subsidies and facilities [2], without increasing transaction costs through political support [3], we can guarantee the legal protection of your investment, and keeping abreast of global business developments [4].

Despite the well-publicized inefficiencies and underperformance of listed companies [5], empirical evidence suggests that listed firms are still relevant. This relevance and prevalence is more evident in developing countries such as Africa, where SOEs operate in almost all sectors. This is especially true in the infrastructure sector, where high capital requirements and low returns constrain the private sector. Previous research has mainly focused on the underperformance of listed companies [5]. Corporate governance, accounting and accountability of public companies [6, 7] is one of the important and growing topics in public governance and more. Public service delivery and fiscal consolidation cannot be achieved effectively and efficiently without a strong public corporate governance system [8]. Corporate governance research is a growing field with many opportunities for investigation [9].

A state-owned enterprise is a regional or national enterprise wholly controlled by the state with majority or no but significant ownership. In Kenya, a holding company is a semi-autonomous company established by the government by law or by parliament [10]. In Indonesia, regulations on SOEs include the Law on SOEs No. 19 of 2003. The performance of this organization is closely related to audit quality [11] and employee involvement in the decision-making process. Decision [12]. In China, the transformation of public enterprises [13], greenwashing market assessment [14] and the impact of knowledge capital on innovation [15]. Governance in India is also related to firm performance [16, 17] capital structure [18] and membership in business groups as resources information management capacity [19]. In Turkey, business performance is related to the impact of ownership structure on dividend policy [20] and the role of market orientation [21].

Agency issues and their impact on SOE performance are not well understood from the point of view of SOEs. This problem occurs when combined with other problems that make it difficult to understand and treat. Inappropriate governance structures, unclear ownership, unclear objectives and weak management incentives. While companies are influenced by many factors in their performance, listed companies face a common phenomenon: political influence. The impact of political influence on the performance of public enterprises varies from country to country. Companies listed in less politically stable areas tend to appear more stressed.

Research and development is inseparable from emerging circumstances, such as the Covid-19 pandemic that began in 2019. The COVID-19 pandemic is a health and humanitarian disaster affecting all employment in all regions of the world [22]. Policies such as social distancing and working from home were suddenly introduced, severely impacting many companies in all sectors [23, 24]. This is also reflected in the decrease in overall business revenue, profit and investment across all sectors. However, the largest

declines occurred for tourism and travel and [25]. Therefore, it is very important for companies to carry out a proper assessment and analysis of their business models [23].

Based on the above, the author describes the purpose of this study. That is, providing empirical evidence for the development of research publications on the performance of listed companies and providing insight into accounting-related variables arising from the subject matter of listed companies. To achieve this goal, the authors use methods taken from the measurement literature. The use of this method is mainly related to the publication of transmitter performance studies using case study methods [26, 27] and research methods [28] get a raise profit to win. The authors hope that this study will be able to provide a theoretical contribution in the form of an inventory, especially in the form of a bibliographic search of generator performance studies. Especially for stakeholders, a practical contribution to a public company's operations can provide insight into the variables or factors that need to be considered in order to improve the company's operations. Stakeholders can come from the company itself, investors or creditors, and relevant government agencies.

Evaluating business performance to determine the effectiveness of business operations business KPIs. Non-Financial KPIs and Financial KPIs Can be divided into two groups. Information used to measure non-financial performance is information expressed in non-financial units (non-financial information) rather than in currencies or rupees. The financial information we use is information (financial information).

Evaluation of public sector performance is important in determining whether the results of previous work are adequate. Whether to establish a joint stock company or not. In general, the performance of a company is measured by return on investment (ROI) [29], ROA and return on equity (ROE) [30], ROA and Market to book ratio (MB) [31] and annual changes in market-adjusted return on equity and industry-adjusted ROE [32].

2 Method

The development of research on this performance assessment uses the connectedpapers.com application. The use of the connected paper application allows researchers to obtain a clearer picture of research developments by using the KPKU as a performance measurement tool. The explanation in question can be obtained in the form of pictures and in the form of tables. This makes it easier for researchers to describe further how the development of research on the KPKU.

3 Result and Discussion

The Ministry of State-Owned Enterprises (BUMN) has established a system to manage and control the performance of SOEs based on the Good Performance Assessment Criteria (KPKU) with the aim of improving the overall effectiveness and performance of SOEs. Performance evaluation is important for companies to identify opportunities to improve their strengths and competitive advantage. One of the methods used to measure and improve overall business performance is the Malcolm Baldrige Criteria of Excellence (MBCfPE). MBCfPE-based notation can be used to identify and classify operating units

for commercial and non-commercial enterprises. The MBCfPE criteria help companies measure their performance against key business metrics such as customers, products and services, finance, human resources, and operations. The seven categories that make up the Malcolm Baldrige Criteria include Leadership, Strategic Planning, Customer Center, Measurement, Analytics, Knowledge Management, People Center, Operations and Results Center.

Indonesia uses the MBCfPE criteria to evaluate the Indonesia Quality Award. The Ministry of Public Enterprises uses a metric called the Good Performance Criteria (KPKU) to evaluate the performance of public enterprises. These criteria are the result of applying the MBCfPE criteria used worldwide. The KPKU is used as a tool to perform a self-assessment of the SOE and provide feedback on each of the SOE's strategies. KPKU must be performed in a BUMN environment, but so far some BUMNs have not disclosed their performance evaluation scores or KPKU scores in their company's annual reports. Currently, KPKU only applies to public companies.

KPKU is the guideline for developing, tuning, and improving SOE systems and resources for outstanding performance. Performance reviews are used to plan the organization to achieve the company's vision and mission. This can be achieved by improving communication and referrals, clarifying organizational goals, and providing strategic feedback. Indeed, organizational performance is always consistent with organizational strategy. Performance reviews can be the starting point for improving an individual's performance in a way that aligns with strategic goals and ultimately improves organizational performance. Companies need to know their internal and external environment better than their competitors in order to know themselves and their external environment. The KPKU is designed as an overall assessment and as a tool to measure a company's position and determine what it should measure in the future to improve its long-term performance. This study shows that research using the KPKU as a public sector performance measure is still limited, especially research with objects in Indonesia, so that research on performance measure using the KPKU is still possible to be developed further.

So far, the development of research using KPKU as a performance measurement tool is still limited. It is proven that there are not many studies on this matter, especially in Indonesia. This is obtained from the use of the connected paper application which shows several studies on the KPKU with a very spread out period of years. It means there is some research but for a long period of time. The following Table 1 presents previous research on measuring performance with KPKU.

Table 1 is presented based on similarity with the main research that was used as the initial source of the search. The main research in question is the research of Mawirda & Yuliharsi, 2019 which we number 0 (meaning as the basis). Furthermore, in Fig. 1, an overview of the research linkages obtained using the connected paper application is presented.

Figure 1 shows the development of the KPKU research with an average similarity level below 10%. This equivalent similarity is assumed by the KPKU research using interrelated topics or variables, thus forming a separate group. For example, Roland, 2011 formed a separate group of pictures in the center and Wiguna, 2018 and others formed a separate group of pictures on the left. Development on the other side is depicted in Fig. 2.

On the other hand, the development of research on KPKU forms a separate group image for the Nonpaya, 2017 group and others. This group is depicted above with a similarity level of over 10%. Another group grouped with Jimenez, 2016 pictured on the right, with a similarity rate close to 10%. The higher the level of similarity with the basic paper, the more similarities the discussion, especially with regard to the variables used.

Particularly in Indonesia, research on the KPKU is also still very limited. Based on the results of the screening using the connected paper application, the research obtained in Table 2. In Indonesia, the limited use of KPKU as a research variable is also possible due to limited publications on the measurement of KPKU.

Research on KPKU with data objects in Indonesia is still very limited. This may be because the KPKU assessment data has not been widely published so that the acquisition of data on the KPKU has hampered the development of research on the KPKU in Indonesia. This indicates that in the future the KPKU measurement should be increased in publication.

In general, research using KPKU as a performance measurement tool still needs to be further developed. This is intended to further improve the function of the KPKU in general, namely improving the performance of public sector companies. More research on the KPKU will increase suggestions and input on the use of the KPKU as a performance measurement tool. Furthermore, this is aimed at increasing the quantity and quality of the KPKU.

4 Conclusion

This study shows that research using the KPKU as a public sector performance measure is still limited, especially research with objects in Indonesia, so that re-search on performance measure using the KPKU is still possible to be developed further. Suggestions for future research can further explore how the results of the performance assessment using the KPKU are and the differences in implementation in the public and private sectors.

The implication of this research is that the performance measure using the KPKU still needs to be improved, because the results of the study illustrate that the KPKU has not been implemented comprehensively. The limitation of this research is that it has not been able to provide a detailed description of the variables that have developed along with the development of research related to the KPKU.

Table 1. Previous research on measuring performance with KPKU

No	Title	Author	Year	Citation	References	Similarity to origin
0	An Analysis of Performance Assessment Based on KPKU	Mawirda Mawirda, Yulihastri Yulihastri	2019	1	18	100
1	The State of the Practice of Performance Measurement in Intergovernmental Arrangements in the United States	M. Holzer, Étienne Charbonneau, Alexander C. Henderson	2011	1	10	25.7
2	Performance Measurement using KPKU- BUMIN in X School Education Foundation	Sugih Arijanto, Ambar Harsono, Harsono Taropratjeka	2016	2	21	14.8
3	Applying the Baldrige Organizational Effectiveness Model to the Standards for Accreditation of a Higher Education Institution	T. Roland	2011	3	82	10.4
4	Development of an Accreditation Matrix for Institutions of Higher Education	T. Roland, V. President	2011	0	77	9.8
5	An exploration of the accreditation self-study process from the perspectives of organizational effectiveness	T. Roland	2011	6	101	9.7
6	CETREL: primeira empresa brasileira do setor de saneamento/meio ambiente a conquistar o prêmio nacional da qualidade	F. A. Pereira	2001	0	2	8
7	Jay Champion of Elevations Credit Union, 2014 Malcolm Baldrige National Quality Award Recipient	M. Pryor	2016	1	0	8

(continued)

Table 1. (continued)

No	Title	Author	Year	Citation	References	Similarity to origin
8	Path towards Business Excellence the Mauritian Experience	Rishi Domun	2016	1	10	8
9	Strategies to achieve competencies during disruptive change: Emerging employer needs and their impact on program deliverables in the healthcare sector	Sandra Murdock, R. Delgado, E. Gammon	2019	1	0	8
10	Performance the Malcolm Baldrige on State Electricity Company (PLN) in Indonesia	D. S. A. Oktrivina, S. Suroso, Bambang Purwoko, T. Widyastuti	2017	1	25	8
11	Improvement of Company Performance using Superior Performance Assessment Criteria Method (KPKU SOE)	T. Wibowo	2019	1	0	8
12	The effect of Baldrige performance excellence program on organization's innovation/dynamic capabilities	Mohammed Alomairy	2016	1	144	8
13	Accounting Business Analysis in A Balanced Indicator System	M. Timchev	2019	0	5	8
14	Lorenz on Leadership	S. Lorenz	2005	6	3	8
15	Nim Traei © Tima Managing Utility Companies In Dynamic Markets	K. Müller, V. Preveden, A. Grabek	2006	0	3	8
16	The Integration of Performance Management into the Management of the London Borough of Lewisham	P. Joyce	2015	1	2	7.7

(continued)

Table 1. (continued)

No	Title	Author	Year	Citation	References	Similarity to origin
17	A comparative study of municipal performance measurement systems in Ontario and Quebec, Canada	A. Schatteman, Étienne Charbonneau	2010	6	47	7.7
18	Investment Ensuring for Development of Integration Relations in The Agricultural Sector of Ukrainian Economy	Yúriy Lupenko, A. Gutorov, O. Gutorov	2018	14	6	6.5
19	The Analysis of PRISM Performance in PT. XYZ	A. Farmania, R. Prasetyo	2021	0	23	6.5
20	Development of SOE Criteria based on Balanced Scorecard	Dwi Pangesti Piorita, A. H. Nasution, A. Kunaifi	2018	2	0	6.5
21	The Adoption, Use, and Impacts of Performance Measures in Medium-Size Cities	David H. Folz, R. Abdelrazek, Y. Chung	2009	51	23	6.5
22	Performance Management and Deficit Adjustment in U.S. Cities: An Exploratory Study	B. Jimenez	2016	5	75	6.5
23	Quality Performance of UNSOED Dental Education Hospital Based on The Criteria of Malcolm Baldrige	A. FineRamadhaniyaFebri, A. Indrayanto, W. Siswandari	2019	2	0	6.5
24	Performance Evaluation using Malcolm Baldrige National Quality Award for Improving Quality Service	Rumah Sakit	2012	2	2	6.5

(continued)

Table 1. (continued)

No	Title	Author	Year	Citation	References	Similarity to origin
25	Determining how work process influences organizational results using the Malcolm Baldrige Excellence Framework	Louis Reade Cruz	2018	2	0	6.5
26	Company Performance PT Baramulti Sukses Sarana using Malcom Baldrige Measurement Technology in Order to Adjust the World Class Coal Company in Indonesia	Syarifudin Tippe	2013	2	3	6.5
27	The effect on corporate performance of firms that won the Malcolm Baldrige National Quality Award.	J. Horne	2009	3	107	6.5
28	Analysis of Nursing Education Excellence in Indonesia Using Baldrige Criteria	A. A. A. Hidayat, M. Uliyah	2019	2	31	6.5
29	Measuring Intellectual Capital in European SME	K. Mertins	2008	16	5	6.5
30	Making Change Happen Through Appraisal and Development.	P. Lewis	1996	6	0	5.5
31	Accounting Management and Efficiency of SMEs in the Province of Nakorn Nayok	Wanwisa Nompunya, Tanawadee Kangnoi, Jutarat Kosiri, Thitima Permsangsuwan, Kawita Tipjaturporn	2017	0	8	5.5
32	Performance Analysis of IEEE 802.15.4 Propagation Parameters	Nidal Al-Dmour	2013	0	8	5.5

(continued)

Table 1. (continued)

No	Title	Author	Year	Citation	References	Similarity to origin
33	Performance management in a benchmarking regime: Quebec's municipal management indicators	Étienne Charbonneau, F. Bellavance	2015	8	59	5.5
34	Application of Malcolm Baldrige in the Healthcare Management Performance Assessment System	Citra Wiguna	2018	3	0	5.5
35	Performance Measurement Based on Malcolm Baldrige For Performance Excellence (MBCFPE) on Criteria for Measurement, Analysis and Knowledge Management At Hotel X	Nurina Khoirunisa Nusantari, Harsono Taropratjeka, Sugih Arijanto	2015	3	0	5.5
36	Analysis of Malcolm Baldrige Criteria For Performance Excellence (MBCFPE) Approach to Performance at PT. Kinenta Indonesia	E. Susanto	2018	3	0	5.5
37	Strategic Management Accounting disclosure, ownership structure, and firm characteristics in Indonesia manufacturing companies	Setianingtyas Honggowati, R. Rahmawati, Y. Aryani, A. Probohudono	2019	3	70	5.5
38	An empirical investigation of the Malcolm Baldrige National Quality Award framework using causal Latent Semantic Analysis	M. M. Hossain, V. Prybutok	2014	3	0	5.5
39	Linking soft and hard total quality management practices: evidence from Jordan	R. Saleh, Rateb J. Sweis, Firas Izzat Mahmoud Saleh, A. Sarea, Islam Mahmoud Sharaf Eldin, Desiireen Nader Obeid	2018	4	51	5.5
40	Software System for Internal Assessment Workforce Focus Criteria Malcolm Baldrige Criteria for Performance Excellence Based on KPKU-SOE Measurement	Rizky Junjuran Purbajati, C. Niagraha, Sugih Arijanto	2014	3	5	5.5

Source: data processed by researchers.

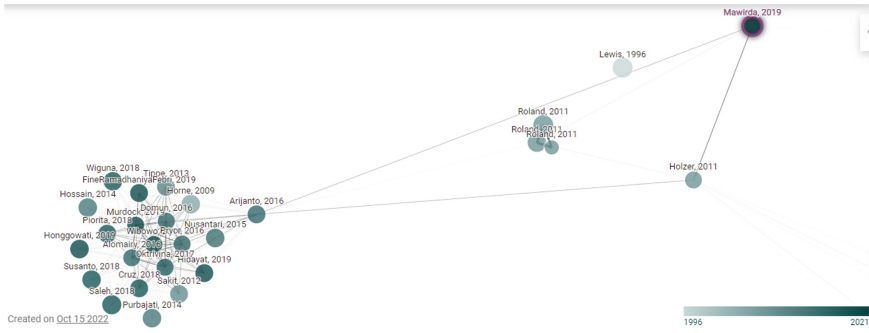


Fig. 1. Research data collection about KPKU

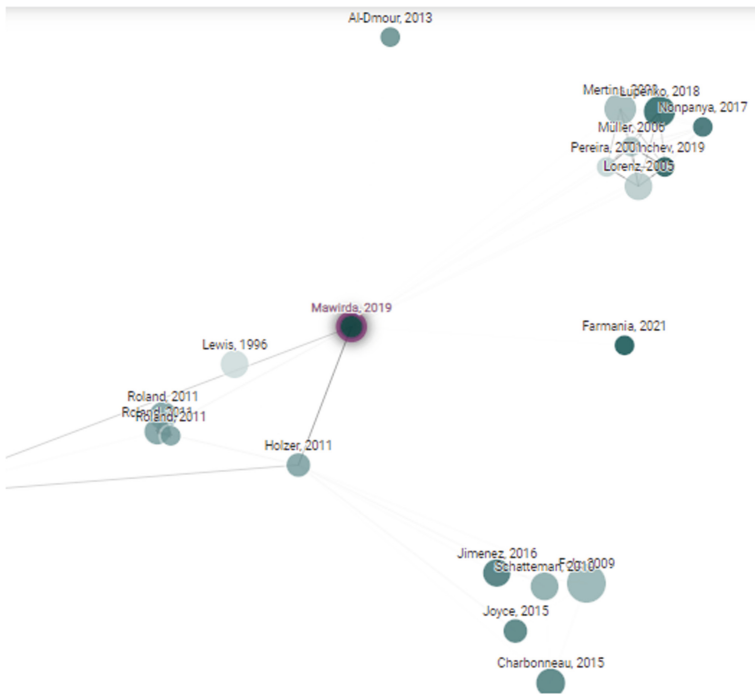


Fig. 2. Research data collection about KPKU- the other side

Table 2. Performance measurement research with KPKU in Indonesia

No	Title	Author	Year	Citation	References	Similarity to origin
1	Performance the Malcolm Baldrige on State Electricity Company (PLN) in Indonesia	D. S. A. Oktrivina, S. Suroso, Bambang Purwoko, T. Widyastuti	2017	1	25	8
2	The Analysis of PRISM Performance in PT. XYZ	A. Farmania, R. Prasetyo	2021	0	23	6.5
3	Company Performance PT Baramulti Sukses Sarana using Malcom Baldrige Measurement Technology in Order to Adjust The World Class Coal Company in Indonesia	Syarifudin Tippe	2013	2	3	6.5
4	Analysis of Nursing Education Excellence in Indonesia Using Baldrige Criteria	A. A. A. Hidayat, M. Uliyah	2019	2	31	6.5
5	Analysis of the Malcolm Baldrige Criteria for Performance Excellence (MBCFPE) Approach to Performance at PT. Kinenta Indonesia	E. Susanto	2018	3	0	5.5
6	Strategic Management Accounting disclosure, ownership structure, and firm characteristics in Indonesia manufacturing companies	Setianingtyas Honggowati, R. Rahmawati, Y. Aryani, A. Probodudono	2019	3	70	5.5
7	Software System for Internal Assessment Workforce Focus Criteria Malcolm Baldrige Criteria for Performance Excellence Based on KPKU-SOE Measurement	Rizky Junjunan Purbajati, C. Nugraha, Sugih Arijanto	2014	3	5	5.5

Source: data processed by researchers.

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Abstract The Community Partnership Program Training and Development of Digital Marketing, Production Technology, Entrepreneurship Economic Recovery Efforts During the Covid-19 Period aims to utilize ways of adopting technology transfer and e-commerce to build creativity to produce innovative and quality products. The use of technology transfer is the best solution to help the economy keep running. Marketing assistance through social media. Outer Community Partnership Program The achievements of partner empowerment are as follows: Human Resources are increased in knowledge of financial management, making designs with local characteristics as a determinant of competitiveness, making innovative designs for batik with unique characteristics of historic sites and registration of intellectual property rights, adding supporting equipment for quality improvement and acceleration the production process in the form of a night printing table installation tool. Increased production capacity, the amount of turnover increased compared to the initial period of the Covid-19 pandemic. Follow-up evaluation, after the implementation of the community partnership program of conformity: Input, Process, Output and Out came, with the needs and solutions provided to Partners.

Keywords (separated by '-') Digital Marketing - Production Technology - Entrepreneurship - Economic Recovery Impact of Covid-19



The Community Partnership Program Training and Development of Digital Marketing, Production Technology, Entrepreneurship Economic Recovery Efforts During the Covid-19 Case Study in Small and Medium Enterprises Batik Center

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Abstract. The Community Partnership Program Training and Development of Digital Marketing, Production Technology, Entrepreneurship Economic Recovery Efforts During the Covid-19 Period aims to utilize ways of adopting technology transfer and e-commerce to build creativity to produce innovative and quality products. The use of technology transfer is the best solution to help the economy keep running. Marketing assistance through social media. Outer Community Partnership Program The achievements of partner empowerment are as follows: Human Resources are increased in knowledge of financial management, making designs with local characteristics as a determinant of competitiveness, making innovative designs for batik with unique characteristics of historic sites and registration of intellectual property rights, adding supporting equipment for quality improvement and acceleration the production process in the form of a night printing table installation tool. Increased production capacity, the amount of turnover increased compared to the initial period of the Covid-19 pandemic. Follow-up evaluation, after the implementation of the community partnership program of conformity: Input, Process, Output and Out came, with the needs and solutions provided to Partners.

[AQ1](#)

Keywords: Digital Marketing · Production Technology · Entrepreneurship · Economic Recovery Impact of Covid-19

1 Introduction

The Community Partnership Program is intended to be able to help overcome problems faced by the general public such as poverty, gender equality and social inclusion, natural disasters, security, health, education, environment, population, socio-political and other social problems; and problems faced by productive economic societies such as production, management, and marketing issues. Target audience (partners) of the Partnership Program The community can be a community business group [1].

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The current economic challenges are very heavy. People are in a state of alert and very careful by limiting travel and consumption, of course this has an impact on buying and selling transactions in the market. These impacts range from reduced production, reduced number of employees, to the worst is the cessation of production which of course also has an impact on the increase in the number of unemployed.

Current developments in technology can encourage various aspects of every activity to be faster and easier. With the development of science and technology that is currently able to make the relationship between humans in terms of communication become limitless and without obstacles, especially distance. The current digital era technology cannot be avoided by business actors, business actors are required to be able to maximize digital developments, because it is possible to market their products [2].

In line with the Regional Medium-Term Development Plan Wonogiri Regency in 2020–2024. Mission to Increase the Productivity of the Wonogiri People and Competitiveness in All Fields So Wonogiri Can Advance and Rise Together Regions. Objectives Improving regional economic performance through the agricultural sector, environmentally friendly trade, industry, and tourism for development the regional populist economic system is based on superior potential [3].

The problems faced by partners, especially in the technological aspect due to the impact of the corona outbreak which undermined people's purchasing power. However, small, and medium enterprises still survive, almost all batik artisans in the batik industry center in Tirtomoyo Wonogiri are now forced to close their businesses due to lack of orders [4]. Entrepreneur Tirtomoyo Wonogiri stopped 300 businesses, no less than 1,500 workers were forced to be laid off. Business opportunities that were built when economic conditions and the decline in people's purchasing power made the online market not run as expected [5]. People currently think how many months their savings can make in the future [6]. Batik Kartika is temporarily forced to stop and while depleting stock of goods. Batik Kartika so far employs between 10 and 11 people. To get around the condition because batik is sluggish, Batik Kartika has recently tried to swerve by producing batik cloth masks.

2 Method

Solutions to the priority problems of the partners of the Ministry of Education and Culture's Community Partnership Program. Research and Technology/National Research and Innovation Agency for Fiscal Year 2022 with the title "Community Partnership Program Training and Assistance in Digital Marketing, Production Technology, Entrepreneurship in Economic Recovery Efforts in the Impact of Covid-19 at the Tirtomoyo Wonogiri Batik Center". Using the Participatory Rural Appraisal (PRA) method. This PRA method is a method of developing community potential where existing problems are identified by the community itself and the results of the solutions to these problems can be utilized by the community for problem solving.

In the implementation phase, the Community Partnership Program socialization activities were carried out by means of FGDs. The parties involved in this activity are: academics, village officials, batik and convection craftsmen. The involvement of all parties to participate in the economic recovery of batik artisans who are members of the

association, due to the impact of Covid-19. One of these sectors is the batik industry sector which provides school uniforms, agency offices, tourism to support and meet the needs of the community. In order to products to be closer to consumers, partners who already have a batik business are needed. Partners' participation in program implementation at the Tirtomoyo Batik Center Wonogiri has the motivation to participate in technology transfer activities very enthusiastically, it will affect the success of technology transfer. The higher a person's motivation to participate in technology transfer activities, the higher the chances of successful technology transfer.

Motivation to actively participate and support the process of transfer of knowledge and technology. Tirtomoyo wonogiri batik craftsmen are very open to the cooperation activities of the community partnership program. The community related parties, the village head, the head of the tirtomoyo sub-district and the office of micro small and medium enterprises and cooperatives of wonogiri regency are very supportive of the community partnership program.

Good working environment conditions will support the workers so that they can create a better work spirit so that the goals of the business group at the tirtomoyo wonogiri batik center in trying will be quickly achieved. Culture gives people a sense of comfort to regulate how their daily social life is. The cultural beliefs and values of different groups of workers have a significant impact on how they construct meaning from the technology they use both at work and for personal use. Cultural traits of both parties can have a significant impact on effectiveness and therefore affect the success of the process technology transfer.

3 Discussion Result

Partner participation in the implementation of the community partnership program: The place/location of the community training activity group for batik batik craft centers held at batik kartika's house in cangkringan bugel rt.01/rw 05 tirtomoyo wonogiri, central java province. In collaboration with the village head of the tirtomoyo wonogiri village government.

Partners training participants are willing to participate in and accept the transfer of science and technology technology until the program schedule is complete. Post-training partners participants are willing to aid in the batik industry center business group according to the schedule. Partners training participants are willing to take part in the training until the schedule of the community partnership program activities is completed.

Participating partners are willing to obey the rules in the implementation of community partnership program activities. Partners agree, are willing to accept and maintain assets that are donated in the community partnership program. Partners agree, are willing to provide equipment materials that have been used to be developed with new design innovations in community partnership programs.

Partners agreed that after the post-partnership program the community still maintained good relations for program evaluation and establishing a sustainable business

network. Partners participate in developing new designs in community partnership programs. Partners agree that after the post-partnership program the community still maintains good relations and forms a sustainable business network. Partners increased their participation or participation in program planning, implementation, and evaluation.

Evaluation of program implementation and program sustainability in the field after the Community Partnership Program activities are completed. Evaluation of program implementation and program sustainability in the field after the Community Partnership Program activities are completed.

Final Stage of Evaluation after the implementation of the Community Partnership Program conformity: Input, Process, Output and Outcome., Evaluation Function in Community Service is not only to supervise the implementation of MSME activities, but also includes data collection as input for determining follow-up actions in improvement efforts. Implementation of activities in community service in the future. Therefore, with the evaluation, it is hoped that there will be improvements in the implementation of community service activities from one period to the next.

The Community Partnership Program activities held in 2022 have had positive effects and results for the Tirtomoyo Wonogiri Batik Center both in terms of the economic aspects of the residents and social aspects. Through the Community Partnership program, Training and Assistance in Digital Marketing, Production Technology, Entrepreneurship, Economic Recovery Efforts in the Impact of Covid-19 at the Tirtomoyo Wonogiri Batik Center, which were given at the Tirtomoyo Wonogiri Batik center, successfully marketed their products through social media, 17 small and medium batik businesses or as much as 85 percent (%) succeeded in selling products through social media and marketplaces and success in training on appropriate technology for drying machine production technology as much as 100 percent were able to operate dryers.

In addition, this service has succeeded in forming an appropriate technology in the form of a production technology fabric dryer. Entrepreneurship training has succeeded in establishing independence in entrepreneurship so that the entire process of this activity runs 100% smoothly. The community service team will continue to monitor the development of the business group by conducting intense visits for six months to ensure the business group is running as expected and the eight provisions that have been set are further service programs.

4 Conclusion

The results of the Community Partnership Program activities related to the urgency of the sustainability of the Tirtomoyo Batik center having an impact on the Covid19 pandemic, the following conclusions can be drawn; This Community Partnership Program proves that the implementation of Digital Marketing carried out by Batik entrepreneurs is in accordance with procedures. The results of this Community Partnership Program activity prove that by applying appropriate technology to drying machines, it can help produce more in the rainy season, primarily giving a positive impact on the economic resilience of the Tertomoyo batik center by continuing to carry out the production process and continue to distribute goods to consumers. Through the Community Partnership program, Digital Marketing Training and Assistance, Production Technology, Entrepreneurship

Economic Recovery Efforts in the Impact of Covid-19 At the Tirtomoyo Wonogiri Batik Center, we have succeeded in innovating an appropriate technology in the form of a production technology fabric dryer.

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Chapter 27

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Abstract	This study examines the effect of career development, job content, social atmosphere, financial reward, life and work balance on turnover intention and the effect of mediation by employee engagement in the relationship between career development, job content, social atmosphere, financial reward, life and work balance on turnover intention. The study was taken place at a Public Hospital Nurse in the City of Surakarta, taken with purposive sampling technique. The criterion for respondents in this study were the	


nurses who working in hospitals with a minimum of one year work period in their field. This study *was* obtained through questionnaires with a total of 167 data processed. This study uses a structural equation model (Structural Equation Model). The results of the study can be concluded that career development, job content and social atmosphere have a negative influence on turnover intention and are mediated by employee involvement, while financial rewards and work and life balance are not affect turnover intention and are not mediated by employee engagement. This study has several limitations which include the number of samples, the object of observation that is focused on nurses and the observation area around the Surakarta Residency. So that in future studies are expected to complete the limitations of this study.

Keywords
(separated by '-')

Psychological Contracts - Employee Engagement - Turnover Intention



The Effect of Psychological Contract on Turnover Intention Mediating by Employee Engagement

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Abstract. This study examines the effect of career development, job content, social atmosphere, financial reward, life and work balance on turnover intention and the effect of mediation by employee engagement in the relationship between career development, job content, social atmosphere, financial reward, life and work balance on turnover intention. The study was taken place at a Public Hospital Nurse in the City of Surakarta, taken with purposive sampling technique. The criterion for respondents in this study were the nurses who working in hospitals with a minimum of one year work period in their field. This study *was* obtained through questionnaires with a total of 167 data processed. This study uses a structural equation model (Structural Equation Model). The results of the study can be concluded that career development, job content and social atmosphere have a negative influence on turnover intention and are mediated by employee involvement, while financial rewards and work and life balance are not affect turnover intention and are not mediated by employee engagement. This study has several limitations which include the number of samples, the object of observation that is focused on nurses and the observation area around the Surakarta Residency. So that in future studies are expected to complete the limitations of this study.

AQ1

Keywords: Psychological Contracts · Employee Engagement · Turnover Intention

1 Introduction

The desire to choose to quit the job voluntarily or not voluntarily or change the place of work to a new one according to employee choice is called turnover intention (Mobley, 1982). Turnover Intention needs to be investigated because it is often taken into consideration when someone feels they don't want to be part of their work, the literature study Kim & Young (2017) [21] said that turnover intention is able to predict the likelihood of someone leaving work in the near future. According to national survey data, the annual turnover rate in the health industry reaches 23% of the total employee turnover rate and 50% of them are nurses (Elizabeth, 2011) [15]. Attachment is considered as an attempt by someone to clarify their existence through participation that can be conceptualized as thinking that is positively related to work characterized by enthusiasm, dedication,

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and absorption (Schaufeli, Bakker, & Van Rhenen, 2009). Therefore attachment is able to influence employee turn over intention.

Besides being able to influence the occurrence of turnover intention, attachment is also related to the fulfillment of psychological contracts supported by research results from Van den Heuvel, Freese, Schalk, & van Assen (2017) [33] which reveal that the attachment and fulfillment of psychological contracts is positively related to attitudes towards change and negatively related turnover intention. Turnover intention is strongly supported as the best choice for detecting the fulfillment of psychological contracts by the leadership, when someone intends to leave the workplace, this moment becomes important because turnover intention concerns the critical role of nursing work and the impact of psychological well-being of nurses in achieving better quality of patient care Pahlevan & Sharif (2018). Psychological contracts have elements that can be linked to self-image in the form of career development, job content, social atmosphere, financial rewards and the balance between work and life DeVos & Maganck (2009) that employees expect.

This study replicates the research conducted by (Sheehan, Tham, Holland, & Cooper, 2019) [31] entitled Psychological contract fulfillment, engagement and nurse professional turnover intention. This study will take the location of studies at the General Hospital in Surakarta residency with different grades in order to represent the overall population of the General Hospital in Surakarta based on data from the Ministry of Health in 2019. The General Hospital was chosen for another reason the burden of nurses is estimated to be greater than nurses in Special Hospitals because of various service offerings (Elizabeth 2011) [15]. The targeted research sample is nurses at the General Hospital in Surakarta who have a heavy workload, responsibility for one's life and follow irregular working hours with a shift system (Anafarta, 2011) [2] and routine work intensity.

2 Literature Review

In understanding the work behavior of an employee the most influential thing is conceptual thinking related to Social Exchange Theory. Social Exchange Theory has the aim to understand employee relations with their leaders both positively or negatively (Blau, 1964). The form of interaction that arises starts from the employee's expectations of the leadership, if the interaction is ignored it can be a reason for the occurrence of turnover intention (Chenevert et al. 2016). Unfulfilled expectations will affect psychological well-being and quality of performance (Pahlevan et al. 2018).

Attachment from employees is considered to have an important role in achieving balance in mutual expectations. Employee engagement is likened to employee self-investment in Rich's cognitive, behavioral and emotional work (Sheehan et al., 2019) [31]. The relationship of behavior and cognitive in general that leads to balance one of which can be explained in Shaw & Contanzo's theory of cognitive dissonance (Guerrero et al., 2017) [18]. In general, cognitive dissonance theory explains the psychological discomfort of employees when they encounter opposition between one's ideas and behavior or can be called psychologically inconsistent. So when dealing with psychological discomfort a person will tend to avoid situations that can increase dissonance.

2.1 Career Development and Turnover Intention

Psychological contract is defined as an effort that needs to be done by employees as an effort to maintain relationships within the organization, there is a lot of evidence about the influence of psychological contract elements on various kinds of results related to work. Employees evaluate the fulfillment or violation of psychological contract elements through inducements received from promises made by previous companies (De Vos & Maganck, 2009). Career development is the first element of the psychological contract expected by employees. Career development is the route in managing knowledge, effort, freedom, and evolution to move towards a firm and personal future (Ali Z Bashir & Mehreen, 2019) [4]. Research (DeVos & Maganck 2009) suggests that nurses need to develop their careers to feel more competent. Based on these arguments, the following hypothesis is formulated:

H1a: Career Development negatively influences Turnover Intention.

2.2 Job Content and Turnover Intention

Research conducted by (Turnley & Feldman, 1998) [32] shows that violations of psychological contracts will positively affect intention to leave or decrease employee commitment. Other studies show the results of fulfilling psychological contracts in scientifically important constructions have a negative effect on managers' concern on employee turnover (Robinson, 1996) [23]. The second element of the psychological contract expected by employees is job content which is defined as routine in the work which is indicated by variations in tasks, significance, autonomy, identity, and feedback as well as having an impact on perceptions of individual quality on work life (Vishwanarth & Jamal 1991). Research (DeVos & Maganck 2009) adds that nurses need to have job content that can produce feelings of autonomy in themselves. Based on these arguments, the following hypothesis is formulated:

H1b: Job Content negatively affects turnover intention.

2.3 Social Content and Turnover Intention

Efforts to fulfill the psychological contract element are considered as part of the fulfillment of employee expectations by the company whose impact can trigger actions from employees. Ana Brochado & Paulo Rita (2016) [5] stated that the social atmosphere is the recognition of members of the work environment and a set of organizational characteristics that affect members. Research (DeVos & Maganck 2009) suggests that nurses need to be socially connected to feel mutual ownership. Based on these arguments, the following hypothesis is formulated:

H1c: Social Atmosphere negatively influences turnover intention.

2.4 Financial Rewards and Turnover Intention

This research (Kraak et al 2017) this time explains that violations of psychological contracts (when psychological contract elements are not fulfilled) will cause negative

effects, one of which is turnover intention. Like research (Morrison & Robinson, 1997) [23] which proves negative effects arise when there is a psychological contract violation that triggers emotional shocks to employees in the form of disappointment to anger that has the potential to cause a response to employee performance violations.

To prevent negative effects on employees, the company emphasizes the importance of fulfilling other elements of psychological contracts on employees. DeVos & Maganck's research results (2009) explain that the balance between work and life and financial rewards are considered less important. But Rousseau (Marescaux, De Winne, & Sels, 2013) stated that financial rewards are a means to attract, motivate, and retain valuable employees. Based on these arguments, the following hypothesis is formulated:

H1d: Financial Rewards negatively influences Turnover Intention.

2.5 Work-Life Balance and Turnover Intention

Research by Sheehan et al. (2019) [31] shows the results that fulfillment of promises related to career development, financial rewards and work and life balance does not affect turnover intention. In contrast to the results submitted (Guerrero, Chenevert, & Kilroy 2017) [18] which stated supporting the need for a balance between work and life in order to feel competent even added statements that responsibilities that are not classified as work can affect the work capacity for nurses. Some additional psychological contract elements need to be fulfilled to prevent performance violations. Violation of employee performance can be one of the failures of hospitals in maintaining nurses and loss of cost efficiency as an effort to replace new nurses due to turnover (Chenevert, 2016). Based on these arguments, the following hypothesis is formulated:

H1e: Work and LifeBalance has a negative influence onTurnover intention.

2.6 Employee Engagement in Mediating the Effect of Career Development on Turnover Intention

The research results of Sheehan et al. (2019) [31] explain that the relationship between fulfilling psychological contracts in career development on turnover intention is not mediated by employee engagement. Different in the results of the study (Van den Heuvel S., 2017) [33] which states that employee engagement to the relationship between psychological contracts and turnover intention shows significant results that are considered capable of mediating. Fulfillment of higher psychological contracts can lead to higher work engagement and lower turnover intentions (Turnley et al, 2003) [32]. This study examines the effect of contract fulfillment from leaders and investigates changes in work engagement and intention to move from time to time. In the research of Sheehan et al, (2019) [31] shows that the fulfillment of appointments related to career development is important for increasing nurse competence. Based on these arguments, the following hypothesis is formulated:

H2a: Employee Engagement mediates the relationship between the Effects of Career Development on Turnover intention.

2.7 Employee Engagement in Mediating the Effect of Work Content and Social Atmosphere on Turnover Intention

The results (Van den Heuvel S., 2017) [33] show that attachment mediates the relationship between the fulfillment of psychological contract elements on turnover intention. Job content is defined as routine in work which impacts the perception of individual quality on working life (Vishwanarth & Jamal 1991). Job content goes hand in hand with the social atmosphere in work life. Ana Brochado & Paulo Rita (2016) [5] said that the social atmosphere is the recognition of members of the work environment and a set of organizational characteristics that affect members. So that both help nurses realize their personal growth and commitment to improve their achievement and satisfaction. Previous studies have shown that attachment mediates the relationship between fulfillment of psychological contract elements on turnover intention, with responses in the form of high attachment that can reduce turnover intention (Bal, et al, 2013). The research results of Sheehan et al., (2019) [31] show the results that fulfillment of promises is related to attractive work content and social atmosphere mediated by attachment. Based on these arguments, the following hypothesis is formulated:

H2b: Employee Engagement mediates the relationship between the Effect of Job Content on Turnover Intention.

H2c: Employee Engagement mediates the relationship between the Effect of Social Atmosphere on Turnover intention.

2.8 Employee Engagement in Mediating the Effect of Financial Rewards and Work & Life Balanced on Turnover Intention

The research results of Sheehan et al. (2019) [31] explain that the relationship between fulfilling the psychological contract of financial reward and the balance of work & life on turnover intention is not mediated by employee engagement. In contrast to the results of the study (Bhatnagar & Biswas, 2012) which stated that employee engagement was found to have a mediating effect. Supported by the results of Bakker's research (2004) [7] which found that attachment was used to mediate the relationship between work resources and intention to move. In the results of research (Marescaux & Sels, 2013) that convey financial rewards are a means of motivating and retaining valuable employees. Someone often weighs the consequences of losing work on financial rewards and satisfaction with the potential benefits to be gained. Life satisfaction is based on psychological satisfaction of individuals with important life roles and is influenced by the existence or scarcity of work and life balance (Frone, 2003). Employee engagement emerges as a strong mediator between these variables. Based on these arguments, the following hypothesis is formulated:

H2d: Employee Engagement mediates the relationship between the Effect of Financial Rewards on Turnover Intention.

H2e: Employee Engagement mediates the relationship between the Effect of Work & Life Balance Turnover intention.

3 Methodology

This study collected data derived from the response of each nurse which was counted as an individual data source, the response from nurses of the General Hospital in Surakarta represented the opinion to be expressed (Sekaran, 2006) [29]. Because it is done within a period of time of research data retrieval or during a period, this research can be classified in cross sectional research (Sekaran, 2006) [29]. In this study the population to be used is nurses who work at the General Hospital in Surakarta, which has been determined by the researcher. The sampling technique is done by purposive sampling which requires certain considerations so that the subject is able to understand the core of the research so that it can be sampled (Sekaran, 2006) [29]. In this study using a sample of nurses with at least 1 year work experience at the General Hospital in Surakarta. The research instrument in this study refers to the main article in the form of a questionnaire. Sampling is done thoroughly on nurses at the General Hospital in Surakarta who are willing to provide with a minimum of 1 year work period.

Structural equation modeling (SEM) is used in this study as an analytical technique to test a set of regression equations simultaneously Hair (Shehaan, 2019). The number of samples that must be met to conduct research as a calculation requirement using the Full Information Maximum Likelihood (FIML) is 5 times the number of indicator items used, because Chi-square testing is sensitive to the number of samples so at least 100 - 200 samples are needed (Ferdinand, 2014). In this study using 32 indicator items, so the number of samples that must be met is 160 samples with a level of error (confident level standard) of 5%. To avoid repetition of the distribution of questionnaires due to incomplete or damaged data, it was decided to take 210 samples of nurses working at the General Hospital in Surakarta.

4 Empirical Result

4.1 Validity Test and Reliability Test

In this study the validity test will be used with Confirmatory Factor Analysis (CFA) using Amos 22 software. Where each item of questions must have a loading factor > 0.50 . In testing the validity of the results obtained from the seven variables have a loading factor > 0.50 which means that the entire research instrument variables are valid according to the criteria. Based on the reliability test results obtained from the seven variables studied have a construct reliability value > 0.70 , which means that the instrument under study for revealing the seven variables was declared worthy of being an instrument in this study or said to be reliable (reliable).

4.2 Model Test Result: Outliers Test, Normality Test, GOF Test

In calculating the data for testing the assumptions are mapped to represent the 10 observations farthest from the average (outlier). A data is said to be an outlier if the mahalanobis value $d\text{-squared} > \text{its limit}$. a value of 50,370. The outlier limit used is the chisquare table value at the significance level of 0.001 and 32 degrees of freedom that is equal to

62.487. The most expensive mahalanobis distance value is smaller than the limit ($d = 50,460 < \chi_{20,001,28} = 62,487$), it can be concluded that the data to 144 are not outliers. Because the distant observation is not an outlier it can be concluded that there is no outlier data. So that all samples taken are used as SEM calculation data.

Data normality test aims to test whether the data used is normally distributed or not. The test is carried out by using the values in the normality table generated from the AMOS program with the results that all variables enter the normal criteria, that is, if the value of Multivariate $cr \pm 2.58$. This means it can be concluded that the data is normally distributed. According to Hair in Yamin and Kurniawan (2009) [36] SEM analysis does not have the best single statistical test tool to test hypotheses about the model. The results of the calculation of various fit indexes to measure the degree of conformity between models are carried out.

The purpose of this analysis is to develop and test whether a model is compatible with the data. Chi-square value obtained on the model is 500,949, with a probability value of 0.029. Because the p value < 0.05 , goodness of fit chi square and significant probability are stated marginal. The CMIN/DF value obtained in the model is 1,131. Because the CMIN/DF value < 2 , the goodness of fits CMIN/DF is fit. The RMSEA value ≤ 0.08 indicates a good index to accept the suitability of a model. The RMSEA value obtained is equal to the model of 0.028. Because the RMSEA value < 0.08 , the goodness of fit RMSEA is declared fit.

GFI value > 0.90 indicates the model tested has a good fit. The GFI value in the model obtained is 0.848. Because the value of GFI < 0.90 , then the goodness of fit GFI is declared marginal. The recommended value is $AGFI \geq 0.90$. The greater the AGFI value, the better the suitability of the model. The AGFI value obtained is 0.819. Because the AGFI value < 0.90 , the goodness of fits AGFI is declared marginal. The recommended acceptance value is the TLI value > 0.90 . The RMSEA value obtained is 0.979. Because the TLI value > 0.90 , the goodness of fits significantly TLI is fit. The recommended acceptance value is $CFI > 0.90$. CFI value obtained was 0.981. Because the CFI value > 0.90 , then the CFI goodness of fits significantly is fit. Based on this information, it can be concluded that the overall model mentioned in the research model shows that the proposed model has a level of overall conformity that is fit

4.3 Hypothesis Test

From the results of data processing from the above table, researchers look at the estimated value of the regression coefficient that can explain the relationship that occurs between variables. If the estimated regression coefficient value shows a positive number, then the relationship between variables is positive, conversely if it is negative, then the relationship between variables is negative. Meanwhile, the significance of the relationship between variables can be seen from the P value. A P value of less than 0.050 indicates a significant relationship between variables.

Based on Table 1, the relationship between Career Development, Job Content and Social Atmosphere variables has a negative estimated coefficient of regression coefficient. Hypotheses 1a, 1b, & 1c have P values less than 0.050. Then it can be concluded that the hypothesis is supported. While the variable Financial Rewards and Work & Life Balance have a negative estimated value of the regression coefficient. Hypotheses 1d &

Table 1 Hypothesis Testing.

Table 1 Hypothesis Testing

	Variable	Estimate	S.E.	C.R.	P	
Career Development	→ Employee Engagement	,170	,064	2,640	,008	significant
	→ Employee Engagement	,557	,138	4,030	0,000	significant
	→ Employee Engagement	,329	,103	3,200	0,001	significant
	→ Employee Engagement	,127	,061	2,078	0,038	significant
Social Atmosphere	→ Employee Engagement	,160	,079	2,041	0,041	significant
	→ Turnover Intention	-,119	,048	-2,506	0,012	significant
	→ Turnover Intention	-,276	,108	-2,548	,011	significant
	→ Turnover Intention	-,163	,077	-2,107	0,035	significant
Financial Rewards	→ Turnover Intention	-,028	,044	-,627	0,530	No significant
	→ Turnover Intention	-,009	,057	-,164	0,869	No significant
	→ Turnover Intention	-,389	,092	-4,207	0,000	significant
	→ Turnover Intention	-,389	,092	-4,207	0,000	significant

le have a P value of more than 0.050. Then it can be concluded that the hypothesis is not supported. To prove hypothesis 2, it is necessary to do a Sobel Test calculation to find out whether there is mediation by employee engagement in the relationship of psychological contract variables to turnover intention. Hypotheses 1a, 1b, & 1c have the value of t-count > t-table so that the hypothesis is supported. While Hypotheses 1d & 1e have t-counts < t-tables so that these hypotheses are not supported.

5 Discussion

This study examines how the Psychological Contract variable influences Turnover Intention. It also sought to find out the indirect mediating effect of employee engagement on the relationship between Psychological Contract variables in Turnover Intention. Based on the survey that has been done, the following discussion is produced.

First, career development has a significant negative effect on turnover intention. From the data obtained, the researchers concluded that career development had a negative and significant effect on turnover intention. This conclusion is in line with previous research conducted by Irvine and Evans (1995) in the context of job satisfaction with job turnover which states that dissatisfaction is a prediction of turnover intention that encourages nurses to consider the importance of career development. Career development is stated as important to Turnover Intention in DeVos research & Maganck (2009).

Second, job content has a significant negative effect on turnover intention the second result which states that job content has a negative effect on turnover intention is in line with previous research by Sheehan (2019) [31]. It can be concluded that nurses who perceive if they have responsibility for their current work are proof that a nurse actually devotes himself to others Gambino (2010). When nurses perceive their responsibilities as

acceptable and make them feel valued at work, the turnover intention level will decrease. Third, social atmosphere has a significant negative effect on turnover intention. Previous research conducted by Sheehan (2019) [31] in a similar context has proven a negative relationship between social atmosphere and turnover intention. It can be concluded in this study that when nurses have a good relationship between colleagues, the desire to leave work will decrease, added by previous research by Guerrero (2017) [18] which states that nursing is a call related to caring among people.

Fourth, financial rewards do not significantly influence turnover intention. Research on financial rewards in nursing has been conducted by Guerrero (2017) [18] which shows that financial rewards are not the primary for nurses related to the call of duty of care. Based on the data that has been processed in the study, the results show that financial rewards do not have a significant effect on turnover intention. When nurses perceive financial rewards given at work can make them feel interested, but it is not related to the level of turnover intention that will occur.

Fifth, the balance of work and life does not significantly influence turnover intention. According to previous literature, certain roles can be increased or reduced through psychological attachment to work and life balance (Frone, 2003). Sheehan's research results (2019) in a similar context have proven that there is no relationship between work and life balance on turnover intention. When nurses have the perception that they have the opportunity to get flexible working hours depending on personal needs and have the opportunity to determine the time for leave, this will not affect their desires if they intend to leave their jobs.

Sixth, employee engagement mediates the effect of career development on turnover intention. This research concludes that the effect of career development on turnover intention is mediated by employee engagement. This conclusion is in line with the results of Irvine & Evans's research (1995) which shows a negative relationship in the context of job satisfaction with job turnover, with the result of dissatisfaction being the prediction of turnover intention that encourages nurses to consider career development. When nurses experience satisfaction with career development opportunities, they feel involved in their work which can reduce the nurse's intention to leave work. Thus the conclusion drawn that employee engagement shows mediation on the influence of career development on nurse turnover intention.

Seventh, employee engagement mediates the effect of job content on turnover intention. In accordance with research conducted by (Van den Heuvel S., 2017) [33] which states that attachment mediates the relationship between the fulfillment of psychological contract elements on turnover intention. The results of the study by Sheehan et al., (2019) show that the fulfillment of appointments related to interesting work content is mediated by attachment. Therefore, when nurses perceive the work content received can lead to the emergence of intention to leave the job, employee engagement can affect high level of low turnover intention.

Eighth, employee engagement mediates the influence of the social atmosphere on turnover intention. In accordance with previous research Sheehan et al., (2019) [31] showed that the fulfillment of promises related to an attractive social atmosphere is mediated by attachment. Other research by (Bal, et al., 2013) proves that attachment mediates the relationship between the fulfillment of psychological contract elements

on turnover intention, with responses in the form of high attachment that can reduce turnover intention. So in this study, it can be concluded that if nurses believe that social atmosphere that creates a positive relationship between colleagues is able to influence turnover intention, the employee engagement plays a role in knowing the amount of turnover intention that occurs.

Ninth, employee engagement does not mediate the effect of financial rewards on turnover intention. This research concludes that the effect of financial reward on turnover intention is not mediated by employee engagement. This is in line with the results of Sheehan's research (2019) [31] which also states that attachment does not mediate the relationship between the effect of financial rewards on turnover intention. In general nurses will feel attracted to health insurance, benefits and bonuses given when their performance improves. Thus the conclusion is drawn that employee engagement does not indicate mediation on the effect of financial rewards on nurse turnover intention.

Finally, employee engagement does not mediate the effect of work and life balance on turnover intention. This study concludes that the effect of financial rewards on turnover intention is not mediated by employee engagement. This is in line with the results of Sheehan's research (2019) [31] which also states that attachment does not mediate the relationship between the effect of work and life balance on turnover intention. Thus, the conclusion is drawn that employee engagement does not show mediation on the effect of work and life balance on nurses' turnover intention.

AQ2

Acknowledgments. This study has several limitations including the difficulty of accessing permits at the General Hospital in Surakarta Residency which is the length of time of this study. In addition, there are a number of General Hospitals in the Surakarta Residency who are not willing to provide information on data related to nurses who work there. And the other is that the data collection area is still in a small scope, that is the Surakarta residency area. Based on the results of research investigated by the author, a suggestion that the author can for further research is to expand the location of questionnaires to obtain more diverse results not only within the scope of the residency of Surakarta. This research is only limited to nurses as research objects, then the object can be developed in other medical personnel with more specific restrictions such as educational background, minimum age and so on. As well as the current questionnaire data collection is done through field direct surveys, in the future it is expected to be arranged in such a way so that the questionnaire can be distributed via links.

Authors' Contributions. There is a significant negative effect on the psychological contract of career development on Turnover Intention. When nurses perceive opportunities to grow and develop their abilities for the employer to apply, then turnover intention will decrease. There is a significant negative effect on the psychological contract of work content on Turnover Intention. If the submission of ideas or input by nurses when at work is permissible and the use of skills and self capacity can be done, turnover intention will decrease.

There is a significant negative effect on the psychological contract of the social atmosphere on Turnover Intention. When nurses perceive a good working atmosphere in the workplace as well as cooperative relationships and communication between colleagues, turnover intention will decrease. There is no significant effect of psychological contracts on financial rewards on Turnover Intention. When nurses perceive the existence of financial rewards and the acquisition of bonuses given when doing work improvement will not affect the occurrence of turnover intention. There is

no significant influence on the psychological contract of work and life balance on Turnover Intention. If the flexibility in determining work hours and the leniency to determine the expected leave time the nurse does will not affect the occurrence of turnover intention. There is a mediating effect by the involvement of employees in psychological contract development in career development on Turnover Intention. When nurses try to increase involvement in work to achieve promotion or career development will reduce the desire to leave work.

There is a mediating effect by employee involvement in the psychological contract relationship of job content on Turnover Intention. The ability to make valued decisions will make nurses feel responsible within themselves not to leave work. There is a mediating influence by employee involvement in the psychological atmosphere contractual relationship at Turnover Intention. A comfortable workplace atmosphere can create a sense of attachment within nurses at the current job that makes them feel they don't want to leave work.

There is no mediating effect by employee involvement in the psychological reward financial contract relationship at Turnover Intention. Obtaining health benefits and bonuses given when nurses' performance increases do not make them merely feel involved in work so that it will not affect the desire to leave work. When the situation in the nurse is valued, it does not necessarily cause a balance in work and life that makes the nurse feel enthusiastic about work and cannot resist the desire to leave work.

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Chapter 28

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Date: 15 Sept 2022

LETTER OF ACCEPTANCE

Dear Author: Riza Bahtiar Sulistyan

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On behalf of 4th International Seminar and Colloquium on Business Economics (ICBE) in 2022 committee, we are pleased to inform you that your abstract/paper has been reviewed and accepted to be presented at 4th International Seminar and Colloquium on Business Economics (ICBE) conference held on Tuesday and Wednesday, September 27–28th 2022.

Thank you
Best Regards,









Prof. Dr. Rahmawati, M.Si., Ak.

The 4th ICBE Chair



Digital-Based Culture House in Efforts to Improve Community Economy in Papring Banyuwangi

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Abstract. Culture is an important aspect that must be implemented so as not to be eroded by the times. The purpose of this research is to preserve culture by utilizing technology in the form of digital learning, as well as an effort to improve the economy of the Banyuwangi Papring Environment community. This research is an applied research using data collection methods in the form of interviews, observations, and literature studies. This research was conducted at the Kampoeng Batara Banyuwangi Traditional School. The results showed that digital learning was able to arouse children's enthusiasm for learning. Digital learning developed contains the culture of the archipelago, traditional children's games, and local community MSMEs. An important implication of the existence of digital learning is that there is an increase in the local community's economy which is increasing and buying MSME products which are presented in the Kampoeng Batara Traditional School gallery.

Keywords: Digital Learning · Nusantara Culture · Children's Traditional Games · Community MSMEs

1 Introduction

Culture is an aspect that cannot be separated from a country. However, the current culture has begun to be abandoned by the community. Efforts that can be made to preserve culture include the creative industry [1], the use of digital media technology [2]. Cultural preservation has become the focus of several parties, including the preservation carried out in Osing Banyuwangi [3], Culture in Tanah Lot and Borobudur [4], Typical Culture of Lumajang [5], Saronen Madura Culture [6], Balinese Mesatua Culture [2], and other cultures. Among several preserved cultures, awards from several parties were given to the preservation of Banyuwangi culture in Kampoeng Batara [1, 7].

The results of a survey conducted in 2022 in Kampoeng Batara, Papring Environment, Banyuwangi Regency, East Java Province, there are main problems related to cultural preservation that are still not optimal. In this case, it is necessary to apply technology to support the preservation of this culture. Along with the planning concept carried out by the founder of Kampoeng Batara in cultural preservation, it can be done by making a digital-based Cultural House. This concept has been discussed with the local community, creative youth groups, farmer groups, pokdarwis, traditional schools, equality schools, and literacy schools. The digitalization that will be implemented is in the form of digital learning which is useful for the learning process of the children of the Sekolah Adat Kampoeng Batara.

The importance of applying technology in the form of digitalization is because it prevents destruction and encourages the importance of culture to the public through digital media. In addition, cultural heritage should not be lost due to rapid modernization [8]. The concept of digitization as an effort to preserve and save information about culture has developed in several areas including the Radya Pustaka Surakarta Museum [9], Karya Cipta Lontar [10], and the Cultural Heritage Building Juang 45 [11]. However, the process of digitizing culture that has existed so far is still limited to digitizing data, not yet as an active learning medium. Digitization developed in Kampoeng Batara is in the form of digital learning which covers all aspects ranging from the culture of the archipelago, children's traditional games, and local community SMEs.

Digital learning has been developed based on the theory of generations. This theory explains the importance of historical, cultural, and political events [12]. The implementation of digital-based learning is in accordance with the latest trends in the world of education [13]. This theory explains the characteristics of modern learning in the digital economy era [14]. Digital learning developed in Kampoeng Batara Banyuwangi is the development of the theory of generations. The development is carried out in the form of a non-formal learning system in which it discusses more about the culture of the archipelago, children's traditional games, and the local community MSMEs.

The purpose of this research is to preserve the culture of Banyuwangi by utilizing technological developments in the form of a digital learning-based cultural house, as well as an effort to improve the economy of the Banyuwangi Papring Environment community. The benefit of digital learning is that children who are members of the Kampoeng Batara Traditional School will have a lot of knowledge about culture and SMEs. The biggest hope is that culture will not become extinct, eroded by the times and the economy of the community will increase.

2 Methods

This research is an applied research that aims to solve the problems contained in the research location. In this case, it intends to apply the findings to solve specific problems that are currently happening in an organization [15]. Data collection methods in this study used interviews, observations and literature studies [16]. Interviews were conducted with parties who are competent in providing the information needed, namely the founder of Kampoeng Batara, the IT team, local community leaders, and university representatives. Observations are carried out by direct observation which is structured by preparing a

list of data requirements and data sources. Literature study is carried out by studying the results of previous research related to system development. The focus is limited to making a digitalization system (digital learning of Indonesian culture, children's traditional games, and MSMEs for the papring community) in an effort to improve the community's economy.

3 Results and Discussion

The digitization process began with a discussion with the founder of Kampoeng Batara as an effort to solve the problem of preserving Banyuwangi's culture and efforts to improve the economy of the Banyuwangi Papring Environment community. Digital learning developed in Kampoeng Batara in the form of archipelago culture, children's traditional games, and MSMEs of the Banyuwangi Papring Environment community. The result of the discussion between the founders of Kampoeng Batara, the private sector, and universities, that digital learning was developed in the form of the Papring Information System or SIPAPRING (sipapring.com). The developed information system includes 3 main features:

- a. Manage the latest information
- b. Managing digital learning media which is managed directly by Kampoeng Batara
- c. Managing handicraft products to offering / connecting to the marketplace so that they can be ordered by the wider community.

The contents of the digital learning developed include the main page, digital learning page, and product page. The main page consists of several contents ranging from digital learning materials, supporting facilities, SME products, news/blog news, YouTube videos and footers. The material/digital learning page is divided into 2 columns, on the left there is a list of materials by category (archipelago culture, children's traditional games, and MSMEs). On the right there is a content page from digital learning where there is a list of contributors, participants, and documentation. The product page is divided into 2 columns, on the left is the SME product search filter, on the right is a list of products offered, if website visitors click on the product image, product details will be displayed where transactions can be made directly or through the marketplace (Figs. 1, 2 and 3).

After the system is formed, it is filled with materials related to the culture of the archipelago, children's traditional games, and MSMEs. The material about the culture of the archipelago developed into the website (sipapring.com) is in the form of the typical culture of Banyuwangi Regency, such as the Gandrung Batara Dance, Gamelan, Pencak Silat, Mocoan Lontar Yusuf, Bamboo Patrol, Kuntulan, Hadrah, and Jaranan Dance. The details of the Nusantara culture are as follows:

- a. Tari Gandung Batara
Tarian Gandrung is a typical Banyuwangi dance performed as an embodiment of the community's gratitude after the harvest. Gandrung is a performing art that is presented to the accompaniment of music typical of a blend of Javanese and Balinese cultures. This dance is one of the cultural forms of the Osing Tribe who is a



Fig. 1. Main Page Source: sipapring.com

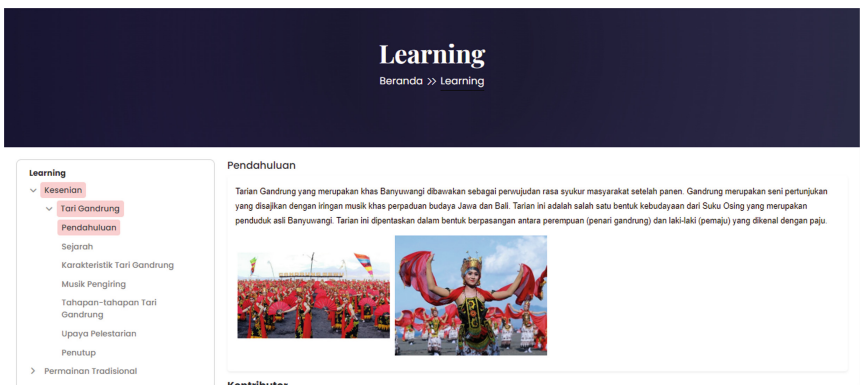


Fig. 2. Digital Learning Page Source: sipapring.com

native of Banyuwangi. This dance is performed in pairs between women (gandrung dancers) and men (advanced) known as paju. Gandrung is often performed at various events, such as weddings, sea pethik, circumcision, seventeen and other official and unofficial events, both in Banyuwangi and other regions. Usually, the gandrung show starts at around 21.00 and ends until dawn (around 04.00).

The types of gandrung dances are: Jejer Gandrung, Paju Gandrung, Seblang Subuh, Seblang Lukinto, Gandrun Dor, Gandrung Marsan, Gama Gandrung, and Jaripah. The style in dancing the gandrung dance is to form a square with the dancer in the middle. The gandrung will come to the guests who dance with him one by one with seductive movements, and that is the essence of the gandrung dance, which is infatuation or lust. The uniqueness of this dance is the clothing, the typical Gandrung Banyuwangi dancer's clothing, and it is different from other Javanese dances. There is a visible Balinese influence (Kingdom of Blambangan).

The clothes for the body consist of clothes made of black velvet, decorated with yellow gold ornaments, and shiny beads and in the shape of a bottle neck that are

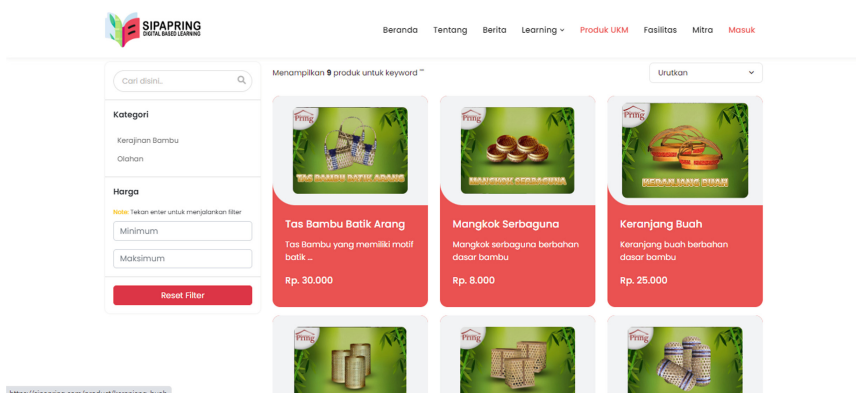


Fig. 3. Product Page Source: sipapring.com

wrapped around the neck to the chest, while the shoulders and half of the back are left open. There are 2 main properties in the gandrung dance, namely the shawl (sampur) and the fan. In the past, there were 2 fans used and held in the left and right hands. A dance property worn on the head called omprok.

b. Gamelan

Gamelan is a traditional Javanese, Sundanese, and Balinese music ensemble in Indonesia that has a pentatonic scale in the slendro and pelog scales system. Consists of percussion instruments used in karawitan music. The most commonly used instruments are metallophones including gangsa, gender, bonang, gong, saron, slenthem played by wiyaga using a hammer (batter) and membranophone in the form of drums played by hand. Also idiophones in the form of keanak and other metallophones are some of the commonly used gamelan instruments. Other instruments include the xylophone in the form of the xylophone, the aerophone in the form of a flute, the chordophone in the form of a fiddle, and a vocal group called the sinden.

A set of gamelan is grouped into two, namely the gangsa pakurmat and gangsa ageng. Gangsa pakurmat is played to accompany the hajad dalem (traditional karaton ceremony), jumenengan (the coronation ceremony of the king or queen), tingalan dalem (commemoration of the ascension to the throne of the king or queen), garebeg (ceremonies of important events), sekaten (ceremonies to commemorate the birthday of the Prophet Muhammad). Gangsa ageng is played as an accompaniment to cultural arts performances, generally used to accompany beksan (dance art), wayang (performing arts), uyon-uyon (traditional ceremonies/celebrations), and others. Currently, gamelan is widely used on the islands of Java, Madura, Bali, and Lombok.

The following is the division of groups on gamelan instruments:

- 1) The balungan group, which is a melody carrier whose sound is made of thick metal plates.
- 2) Its members are demung, saron, and pekingese.
- 3) Blimbingan group, which is a melody carrier whose sound-producing is a flat metal plate.
- 4) Its members are slendhem and gender.

- 5) The pencon group, which is a harmony carrier whose sound is in the form of a metal tube.
- 6) Its members are bonang, kethuk, kenong, and gongs.
- 7) The drum group, which is the bearer of the rhythm whose sound is produced by the leather sheet being beaten. Its members are various kinds of drums.
- 8) Complementary groups, namely the giver of decorations. Its members are flute, fiddle, siter, and so on.

The musical instrument in the gamelan is Kendang, Saron, Demung, Bonang (Bonang Panerus, Bonang Barung, Bonang Panembung), Kenong, Gong, Kempul, Gambang, Slenthem, Gender, Siter, Rebab, Suling, Kemanak, Gendrum.

c. Pencak Silat

Pencak silat is a martial art that pays attention to mental and spiritual aspects. Pencak silat is a form of Indonesian culture to defend themselves. In Southeast Asian countries, pencak silat is known as Silat. Pencak means the basic movement of self-defense. Meanwhile, silat means a perfect self-defense movement that comes from holy spirituality for self-safety from the Joint. The elements for self-defense with martial arts, namely by using punches and kicks. Pencak silat is a martial art that is in great demand by many people, especially the people of Indonesia. The parent organization of pencak silat in Indonesia is the Indonesian Pencak Silat Association (IPSI). The organization that accommodates the martial arts federations in various countries is the Association of Pencak Silat Between Nations (Persilat), which was formed by Indonesia, Singapore, Malaysia, and Brunei Darussalam.

One of the goals of practicing silat is to increase courage and reduce fear. Dare because it's true. You must be ready to attack or be attacked by the opponent. Those are some of the things that are experienced when learning pencak silat, so that our mentality is continuously trained step by step. The special characteristics of pencak silat are as follows:

- 1) Calm, limp attitude (relaxed, like a cat but alert).
- 2) Using flexibility, agility, speed, timing and the right target (accurate) with fast movements to control the opponent, not using force.

The equipment used is in the form of a pencak silat uniform, samsak, body protector, genital protector, footwear protector, skin decker, and mattress.

1. Mocoan Lontar Yusuf

Mocoan lontar yusuf is a tradition carried out by the Osing Banyuwangi tribal community in the form of reading Yusuf's lontar (manuscript). Lontar Yusuf itself is an ancient book written in Pegon script and contains the Book of the Prophet Yusuf. The form is in the form of traditional poetry bound by rules called pupuh. The total in Yosup's Lontar consists of 12 pupuh, 593 stanzas and 4,366 lines. In Banyuwangi, Lontar Yusup is the only ancient manuscript that is still "living" in local communities, especially in rural areas. Other ancient Banyuwangi manuscripts, such as the Kidung Sritanjung and various variants of the Babad Blambangan, are almost never read again today.

The story of Yusuf, which was written in the form of a song, had been created in various other areas of Java. However, Lontar Yusuf Banyuwangi has its own characteristics, both textual elements (story, vocabulary, and form of pegon script) and performance (music and reading rituals). Meanwhile, Yusuf's Lontar, until now, is still regularly recited or sung (poems sung) in front of the public in traditional rituals for saving the human life cycle (birth, circumcision and marriage) as well as annual village clean-up rituals. But in certain cases, it can also be held for an event to fulfill someone's tone. Several groups of readers of Lontar Yusuf also periodically, once a week, still hold readings of Yusuf's papyrus (mocoan) in turns at the homes of each member of the mocoan group, but not in full.

Yusup's complete Mocoan Lontar is usually sung at night, after the Isha prayer time (around 7 pm) until it ends before the dawn prayer time (around 3 am). In this mocoan event, a group of readers of Lontar Yusuf sat cross-legged, lined up in a semi-circle on a mat, then took turns singing the lines of Yusuf's poems in a variety of songs by the Osing Tribe, which differed from the tone of Javanese songs in general. Yusuf's text that was read was placed on a pillow, and alternately surrounded by the singers. Lontar Yusuf's mocoan session, as a ritual practice, also has special ritual procedures and instruments and is not just an ordinary song reading.

In principle, this traditional mocoan lontar activity is similar to a kind of recitation conducted by Muslims. It's just that in the recitation conducted by the residents of Kemiren Village, they use a book/papyrus in the form of ancient texts, in Old Javanese language, and inscribed with the Arabic letter Pegon, and use a rhythm similar to that of singing mocopat. In the life of the Using community in Kemiren Village, every time there is a community celebration (birth, circumcision, and marriage) this lontar reading activity is never abandoned, as a series of opening events. The equipment used is a book or papyrus manuscript.

2. Patrol Bambu

Patrol art is one of Banyuwangi's special types of music that is still alive and growing until now. Patrol art is a type of folk music that is more rhythmic in nature, without diatonic equipment. Patrol Bamboo art is also found in other areas with their own characteristics, including in Madura and Central Java. In the Banyuwangi patrol there is a kind of rhythmic patrol tool which in Using dialect is called gendhong. The tool functions like a drum in Banyuwangi angklung art or a cello in keroncong music. So the tool has an important function as a regulator of rhythm and rhythm. The gendhong beater must really know the rhythm and understand a lot of patrol game techniques. Patrol Banyuwangi folk music functions as a means of protecting village security from all kinds of dangers, and the word patrol which comes from the word patrol means 'watch around' or 'patrolling' while ringing rhythmic instruments made of large and small bamboo sticks, which When hit, it makes a different sound and is pleasant to hear.

The art of patrol Banyuwangi has its own characteristics. Traditionally, in the Banyuwangi area, during the month of Ramadan there is a custom every night after the tarawih prayer is held a patrol game around from village to village by teenagers and some are even adults. This habit no longer functions as a village guard or night patrol, but voluntarily and selflessly wakes villagers who are still sleeping soundly

and immediately wakes up to eat sahur. The typical Banyuwangi patrol art equipment is generally made of large and small bamboo segments that are sharpened and perforated in such a way that they can make a loud sound when hit. From the color of the beautiful sound, a group of young people tried to express their musical taste through this art.

3. Kuntulan

Kuntulan is one of the traditional dance arts that was born and developed in Banyuwangi. A dance which is actually an art that comes from various artistic creativity. Creativity that tries to combine art that was born and developed in the world of Islamic boarding schools in the form of Hadrah art with a typical art from Banyuwangi, namely the Gandrung dance. The movement in the kuntulan is divided into four steps, namely one step at a time walking while turning, jumping right and left, and respectful movements. The naming of this kuntulan is based on the performance of the dancers of this art, in which all the players, both musicians and dancers, are all men who wear white shirts, white pants and wear caps (black cap). The use of socks and gloves for the dancers is also similar to the egrets that are usually found in the fields. This kind of costume is the initial costume commonly used by kuntun dancers.

The philosophical meaning contained in this dance is the white color of the egret's feathers and the color of the dancer's clothes which have white color illustrates holiness. Movement of the head forward and backward also describes the movement of the head of the person who is dhikr. This is also accompanied by the position of the two hands in front of the chest which resembles the beak of an egret. The musical instruments used are lying and kluncing. While the equipment worn on the top of the dancer's clothes is yellow with flower decorations on the headgear and gloves. While the bottom wearing socks.

4. Hadrah

Hadrah Al- Banjari is the art of reading sholawat and praise to the Prophet Muhammad accompanied by a flying musical instrument/tambourine that is hit by hand with various punches, resulting in a serene musical rhythm. The function of hadrah art music is as a means of ceremony, communication, entertainment and culture (a characteristic of local culture) among the Sambas Malay community. Musical instruments in one set consist of 4 tambourines or banjari, bass, tam or tung, calti, and 3 marawis or keprak. Hadrah is a type of tambourine music that has historical relevance during the spread of Islam by Sunan Kalijaga, Java. Because of its interesting development, this art is often held at events such as the birthday of the prophet, isra'j miraj, or celebrations such as recitations, weddings.

5. Tari Jaranan

Tari jaranan is the name of one of the traditional dances typical of the province of East Java. This dance is hundreds of years old and is performed by dancers riding horses made of bamboo. Taken from the story of the community that has developed, the Jaranan dance tells about the marriage between Klono Sewandono and Dewi Songgo Langit. Meanwhile, the dancers who ride the horse property when performing the Jaranan dance are a group of soldiers who accompany the wedding. There are several functions of this jaranan dance, such as performances, ritual events and other aesthetic functions. Musical instruments to accompany the dance are kenong,

drums, gongs, kempul trumpets, and kecer. The properties used include lumping horses, whips, scarves, machetes, anklets, bracelets, and headbands.

In addition to the culture of the archipelago, digital learning is also being developed in the form of traditional children's games in Kampoeng Batara Banyuwangi. The details of the game are Stilts (ordinary, shell, whip), Gasing (bamboo, wood, block), Petak Hide and Seek, Pateng Dudu, Slodoran, Engklek, Gledekan, Seltok, Kemplut, Leker, Karet, Tepil, Banbanan, Yoyo, Killing, Bekel-bekelan ball, Kencring, Pantel, Puk-Karupu'an, Pos Katapos, Jejejan, Using Quartet, and Dakon.

The content of digital learning is also in the form of MSME products from the Papring Banyuwangi community. The products are in the form of typical Papring Banyuwangi batik, Bamboo Crafts, and Coffee. The three products are described as follows:

- a. The typical papring batik has the characteristics of bamboo and bamboo leaves which are innovated with the elephant oling motif.
- b. Bamboo crafts produced in the form of bamboo cups, bamboo lanterns, besek, bamboo tables, angklung, gedeg, trays, waste baskets, bamboo bags, ashtrays, wakul, songkok, flower pots, and so on.
- c. The coffee produced is the original result of the Papring community who has their own coffee plantation and is processed into 2 products, namely robusta coffee and excelsa.

Digital learning developed at the Kampoeng Batara Banyuwangi Traditional School will later be accessible to children who come both from Kampoeng Batara and from formal educational institutions. They will be able to learn through the website www.sipapring.com about the culture of the archipelago, traditional children's games, and local community MSMEs. The material presented in digital learning is not only in the form of narration, but also in the form of videos and photos which are the actual picture.

The results of the digital learning system have made an important contribution to the development of theory of generations [13, 14]. This theory provides important implications for cultural preservation through digital learning at the Kampoeng Batara Traditional School Banyuwangi. And the existence of a digital learning system can increase people's income through the products presented in the existing gallery of Kampoeng Batara. This gallery only sells products produced by the papring community. The management of the sales proceeds by the community group managing the Kampoeng Batara Traditional School and part of the income is used for the operational costs of the Traditional School. The income of the community is increasing along with the existence of a new product in the form of typical papring batik which is of interest to visitors.

4 Conclusion

The conclusion of this study is that the digital system-based cultural house that is applied is very useful for learning the children of Kampoeng Batara Banyuwangi. The real implementation is that children and visitors can at the same time learn the culture of children's games, crafts, and national culture. There has been a fairly high increase

in visits to the digitization system. Visits in Kampong Batara have also increased, especially for visitors who want to learn about culture.

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