turnitin Research Trend of Moral Hazard in Banking Industr

by User 1

Submission date: 15-Feb-2024 04:10PM (UTC+0800)
Submission ID: 2295374375
File name: ARTIKEL_Research_Trend_of_Moral_Hazard_in_Banking_Industry.pdf (443.25K)
Word count: 8232
Character count: 46861

E-ISSN : 2598-6074, ISSN : 2598-2885
Available online at:
http://ejournal.itbwigalumajang.ac.id/index.php/asset

Research Trend of Moral Hazard in Banking Industry

Firdaus Al Maidah[1], Kartika Ayu Kinanti[2], Yulian Ade Chandra[3]

Department of Management, Institut Teknologi dan Bisnis Widya Gama Lumajang, Indonesia[123]

Corresponding Author: firdaus.almaidah93@gmail.com

ARTICLE INFO

Date of entry:
5 Juny 2023
Revision Date:
27 July 2023
Date Received:
31 July 2023

ABSTRACT

Academic journals provide an important forum for the global academic community to interact and develop knowledge on the topic of moral hazard in the banking industry. Reviewing papers published between 2012 and 2023 can help academics acquire full knowledge of how this important topic has evolved over time and indicate new topics for additional discovery and investigation. A systematic two-stage literature review was conducted to evaluate the previous publications, taking into consideration the yearly quantity of published articles, author contributions, and the research focus in their studies. According to the review on moral hazard in the banking industry from 2012 to 2023, this research highlights the importance of conducting a comprehensive literature review due to the decline in published papers. It also examines the distribution of publications across various journals and explores a diverse range of topics within the field. The results highlight the significance of efficient risk management, regulatory supervision, and proper allocation of financial resources for maintaining a secure and sustainable financial system. Additional studies in these areas can enhance our knowledge and provide valuable insights to policymakers and professionals aiming to foster financial stability and promote responsible business practices.

Keywords: Banking Industry, Moral Hazard, Publications, Review.

Cite this as: Maidah, firdaus A., Kinanti, K. & Chandra, Y. A. (2023). Research Trend of Moral Hazard in Banking Industry. *Assets : Jurnal Ilmiah Ilmu Akuntansi, Keuangan Dan Pajak*, *7*(2), 22–37. https://doi.org/10.30741/assets.v7i2.1029

INTRODUCTION

The banking industry plays a crucial role in the global economy, and moral hazard is one of the significant issues that affect the stability and health of the sector. Moral hazard refers to a situation where individuals or institutions tend to take higher risks due to the assurance or protection of others, such as the government or guaranteeing institutions. In the context of the banking industry, moral hazard can occur when large banks feel protected by government policies or regulatory agencies, leading them to take excessive risks that can have negative impacts on the overall financial system.

The attention towards moral hazard in the banking industry has become an increasingly relevant topic, attracting the interest of researchers. Due to its broad scope and complexity, moral hazard invites various research approaches, including those from the fields of finance, economics, public policy, and risk management. Previous research has shed light on different facets of moral hazard in

the banking sector, including the effects of regulatory policies, the repercussions of the global financial crisis, and the risk management approaches adopted by financial institutions.

Latsis & Repapis (2014) introduce a novel framework to examine and elucidate the application of moral hazard models in diverse policy contexts, such as worker compensation programs, bank regulation, and the euro-sovereign debt crisis. The concept of moral hazard, delineated within a specific framework, has been utilized across various policy domains without considering an overarching theoretical structure. Moreover, there is limited or no effort made to justify the significance of analytical findings within the policy context, apart from a general assertion that the situation can be construed as a principal-agent problem.

Hossain & Chowdhury (2015) undertook a study investigating the relationship between moral hazard and the banking sector. Their research identified two key factors that contribute to moral hazard concerns: government deposit guarantees and bailout programs designed for financial institutions. Both of these factors were found to have adverse effects on the functioning of banks. The presence of moral hazard poses significant risks to a country's financial system, with the banking sector being particularly susceptible to its impact.

Gupta & Jain (2022) conducted a study to investigate whether the moral hazard behavior of banks is influenced by their systemic significance. The findings of their research indicate the existence of moral hazard behavior within the Indian banking sector. However, when considering the systemic importance of the banks, it was observed that systemically important banks engage in risky lending activities regardless of their level of distress. In contrast, contrasting outcomes were observed for the least significant banks, suggesting a different pattern of behavior.

Numerous research studies have been undertaken on the topic of moral hazard following the influential publication by Jensen & Meckling (1976), such as Shrieves & Dahl (2003), Gorton & Rosen (1995), Foos (2010), and Zhang et al. (2016). Moral hazard is a phenomenon that cannot be directly observed, but it is inferred through other behaviors, particularly excessive risk-taking in lending for banks. Nevertheless, based on our understanding, there seems to be insufficient emphasis on the importance of summarizing the existing literature. According to Tsai & Wen (2005), conducting a systematic analysis of articles published in academic journals can be valuable in helping researchers gain insights into the present state and future directions of their chosen topic. This approach facilitates researchers in swiftly and effortlessly obtaining a broader understanding of the field. Therefore, it is imperative to undertake a meticulous and systematic analysis of professional papers published from 2012 to 2023 to ascertain the prevailing research trends regarding moral hazard within the banking industry.

This study endeavors to broaden the scope of the literature search by encompassing not only conventional sources but also pertinent journals, thus ensuring a more comprehensive examination of the subject matter. This study aimed to address the following research inquiries during the period of 2012-2023:

1) What is the current trajectory of published research on moral hazard within the banking industry?
2) Which platforms are predominantly utilized and considered optimal for fostering further exploration and collaboration in studying moral hazard within the banking industry?
3) To what extent has moral hazard within the banking industry been examined and covered from 2012 to 2023?

Academic journals play a crucial role in the research community at large, and they hold particular significance for new researchers. These journals facilitate the sharing and dissemination of important research findings worldwide, enabling researchers to access and build upon existing knowledge in

their respective fields. This process ensures that researchers do not need to duplicate previous work but can instead contribute to the advancement of the subject area.

The paper commences by presenting a comprehensive introduction to the foundational aspects of moral hazard, encompassing its definitions and diverse manifestations. Subsequently, the methodology section delineates the approach adopted for conducting the literature review, which incorporates the development of a systematic classification system for categorizing the gathered studies. The findings section employs a rigorous content analysis methodology to conduct a thorough examination of the annual research publications, elucidating the prevailing research focus. Following this, the discussion section provides valuable insights into the current status of research pertaining to moral hazard, with particular emphasis on the banking industry, while also highlighting potential avenues for further exploration. Finally, the paper concludes by succinctly summarizing the principal findings and conclusions derived from the present study.

Defining Moral Hazard

Moral hazard refers to a situation in which individuals or entities are inclined to take greater risks or engage in reckless behavior because they are shielded from the potential consequences of their actions. It arises when one party, typically protected or insured by another party, is motivated to act in a way that benefits them personally but may be detrimental to the other party or the overall system. Several events can incentivize individuals to assume greater risks when they perceive that they will not face any negative consequences if their decisions prove to be unfavorable. One of the reasons is the behavior of individuals or institutions taking excessive risks due to the expectation of being bailed out or protected by external entities, such as governments or insurance mechanisms, in the event of failure or losses. In the context of finance and economics, moral hazard often refers to a situation in which one party decides how much to take a risk, taking into consideration that someone else will bear the cost if things go wrong (Krugman, 2009).

The concept of moral hazard pertains to the alterations in behavior displayed by financial institutions when they are safeguarded against the losses resulting from their actions (Myers & Majluf, 1984). It is not necessary for the government to explicitly announce that it will provide bailouts in the event of bank failures. The nature of banking crises often involves a self-fulfilling panic, which governments strive to avoid due to its adverse effects on the money supply and economic growth. Consequently, it becomes implicit that the government will step in to rescue distressed banks. This understanding gives rise to moral hazard issues as banks are more inclined to invest in riskier projects, relying on the belief that the government will offer assistance if their plans go awry. This situation can be likened to a coin toss game played by banks, where heads represent the bank's victory and tails represent the loss of taxpayer funds (Dewan, 2012).

Cause of Moral Hazard

Moral hazard arises from information asymmetry, which occurs when the party taking on the risk possesses more information than the party responsible for the consequences of that risk. Essentially, moral hazard arises when the party possessing more information is incentivized to behave inappropriately towards the party with limited knowledge. It is important to note that moral hazard, information asymmetry, and adverse selection are interconnected concepts that are sometimes confused. Asymmetric information serves as the fundamental cause of both adverse selection and moral hazard (see Husted (2007); Dionne et al. (2004); Yamamoto et al. (2012)). Asymmetric information results in one party escalating their overall risk exposure following the completion of a transaction, whereas adverse selection manifests prior to the transaction taking place (Husted (2007); Marston (2011)).

In the banking sector, the expectation that the government will provide financial assistance to banks whenever needed can lead to a decreased focus on risk management by bank managers and investors (Schooner & Taylor, 2010). This is because the presence of government support, such as deposit

E-ISSN : 2598-6074, ISSN : 2598-2885
Available online at:
http://ejournal.itbwigalumajang.ac.id/index.php/asset

insurance and capital injections, protects depositors and other bank creditors from bearing losses. Consequently, the interest rates offered on bank deposits and other forms of bank debt do not fully reflect the level of risk associated with the banks' activities. This distorted pricing signal causes banks to finance projects with higher levels of risk compared to what they would typically undertake (Maclachlan, 2001).

METHODS

To comprehensively evaluate and analyze the outcomes of previous research in a particular field or domain of study, it is essential to utilize a systematic analysis of publications found in scholarly journals (Tsai & Wen, 2005). In line with this approach, the present study utilized a systematic methodology to review the existing body of literature on moral hazard within the banking industry, aiming to identify research gaps and provide suggestions for future investigations.

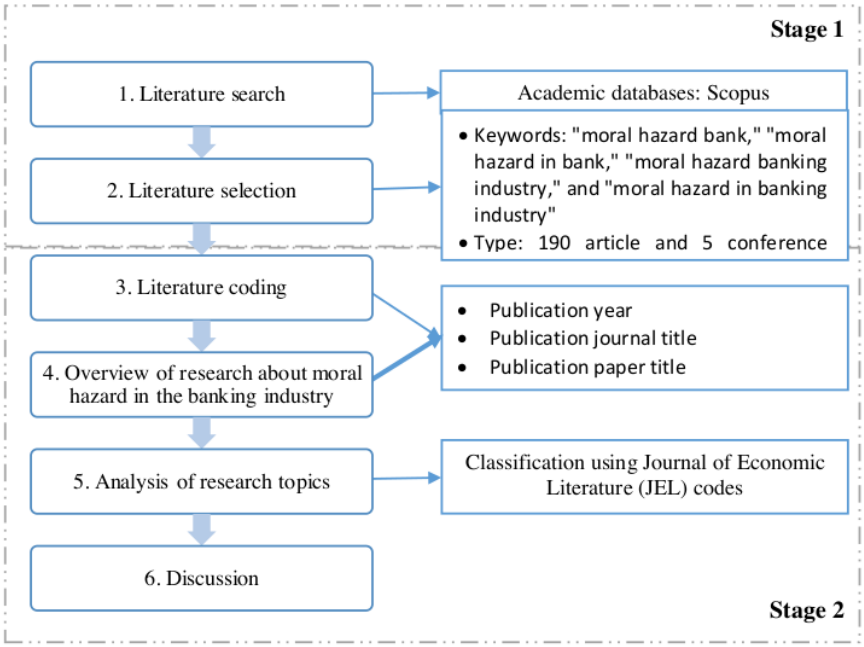

Figure 1. Flow of overall research framework
Source: Cui et al. (2018)

The research framework was designed to encompass two distinct stages. In Stage 1, an extensive literature search was conducted, followed by a systematic coding process to identify relevant articles pertaining to moral hazard in the banking sector. Subsequently, in Stage 2, the filtered articles were subjected to analysis to discern prevalent research topics, explore any existing gaps in knowledge, and identify potential directions for future research. By following this methodical approach, the study seeks to contribute to the advancement of knowledge in the field of moral hazard within the banking industry.

1. Identifying academic journals

E-ISSN : 2598-6074, ISSN : 2598-2885
Available online at:
http://ejournal.itbwigalumajang.ac.id/index.php/asset

To accomplish the research objectives, the identification of academic journals with a substantial number of publications on moral hazard within the banking industry was deemed necessary. This was achieved by utilizing the robust search engine "Scopus," which allowed for a comprehensive exploration of the subject matter. Scopus was selected as the search engine of choice due to its extensive coverage of publication databases across various research areas, including engineering, business, management, and accounting (Hong & Chan, 2014). Moreover, Scopus has been recognized for its superior accuracy and breadth of coverage compared to other search engines such as Web of Science, Google Scholar, and PubMed (Falagas et al., 2008). By leveraging the capabilities of Scopus, the study aimed to ensure a thorough and reliable compilation of relevant publications for analysis and examination.

To conduct a thorough and comprehensive analysis of the research trend regarding moral hazard in the banking industry from 2012 to 2023, a meticulous search was conducted utilizing the "keyword" field within the Scopus search engine. The search was performed using four specific search terms: "moral hazard bank," "moral hazard in bank," "moral hazard banking industry," and "moral hazard in banking industry". Papers that contained these precise terms in their titles, abstracts, or keywords were deemed relevant and met the criteria for inclusion in the study. This rigorous search approach aimed to ensure that all pertinent research articles addressing the topic of moral hazard within the banking sector were identified and considered in the analysis.

2. Examining target papers

The papers obtained from selected journals were subjected to content analysis to examine and analyze various aspects, such as the active contributors among the authors, the annual publication trends, the most cited journals based on their names, and the most cited papers based on the topic of moral hazard in the banking industry. Subsequently, the discussion section provides valuable insights into the current state of research on moral hazard, with a specific emphasis on the banking industry. Furthermore, it identifies and highlights potential areas that warrant further investigation and exploration.

To determine authors' active contributors, a quantitative method proposed by Howard et al. (1987) was utilized. This method involved the calculation of author contributions in multi-authored papers. The formula developed by Howard et al. (1987) was based on the assumption that the contribution of authors varies, with the first author contributing more than the second author, the second author contributing more than the third, and so on. This formula has been widely used in other literature review studies to rank the contributions of authors in multi-authored papers (Ke et al. (2009); Tsai & Wen (2005); Yi & Wang (2013)).
The formula for author contributions is given as:

$$\frac{1{,}5^{n-1}}{\sum_{i=1}^{n} 1{,}5^{n-i}}$$

where n represents the number of authors in the paper and i represents the order of each author. Applying this formula, each publication was assigned one point regardless of the number of authors. This one point was then divided proportionally among the authors using the formula. A detailed distribution of scores for authors is presented in Table 2 based on this formula.

RESULTS AND DISCUSSION

It is crucial to clarify that the primary focus of this paper is to offer a comprehensive review of research on moral hazard, particularly within the banking sector, and does not directly address its practical implications. The search process for relevant papers related to this topic involved two distinct steps. Initially, the search process involved scanning the titles, keywords, and abstracts of papers using relevant keywords in the Scopus database. The authors narrowed down the search by focusing on papers published between 2012 and 2023.

E-ISSN : 2598-6074, ISSN : 2598-2885
Available online at:
http://ejournal.itbwigalumajang.ac.id/index.php/asset

The initial search using four specific keywords yielded a total of 215 results, encompassing various types of publications such as articles, conference papers, reviews, books, and book chapters. To refine the selection, only articles and conference papers were considered, resulting in 195 papers that contained relevant content pertaining to moral hazard in the banking sector. These papers were subsequently chosen for further analysis.

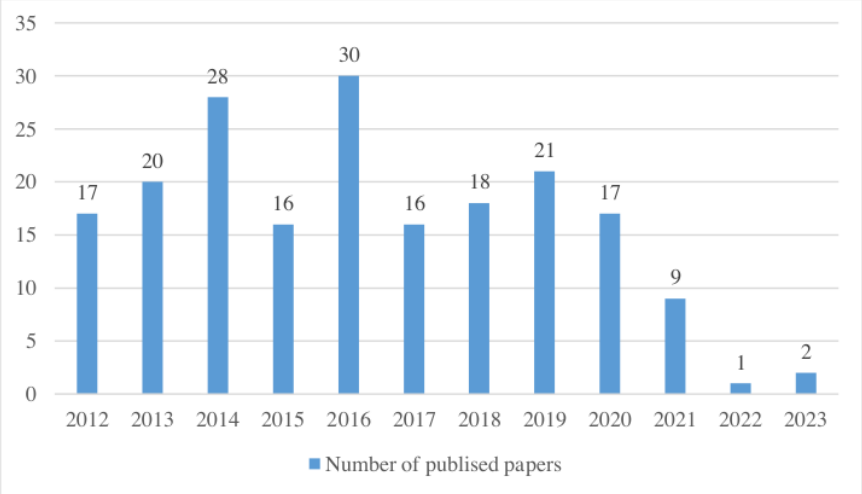

Figure 2. Number of Research on Moral Hazard in the Banking Industry from 2012 to 2023
Source: author's calculations (2023)

Annual Publications on Moral Hazard within the Banking Industry from 2012 to 2023
To examine the trend in popularity, the authors created a graph illustrating the relationship between the years from 2012 to 2023 and the number of papers published on moral hazard in the banking sector from a dataset of 195 papers. As shown in Fig. 2, there is an increasing research interest in moral hazard in the banking industry from 2012 to 2019, but there was a decreasing interest after 2019. Considering the recent decline in the number of published papers addressing moral hazard in the banking industry, it is an opportune moment to conduct a systematic review of the existing literature.

Table 1 presents a comprehensive score matrix for writers, where each paper is assigned a score of one point. It is important to acknowledge that the order of authorship in a publication may not always accurately represent the actual contribution difference among authors. For example, the principal investigator or senior researcher is commonly listed as the last author, while other researchers are positioned earlier in the author list. This practice allows the principal investigator to take responsibility for the overall study and findings while recognizing the contributions of other researchers.

However, the study also acknowledges potential biases due to the two-stage literature review conducted. Consequently, the following analyses are based solely on the data collected through the specific sampling approach. It's important to note that the study's aim is not to encompass all moral hazard articles but rather to examine the trend of moral hazard research within the banking industry.

E-ISSN : 2598-6074, ISSN : 2598-2885
Available online at:
http://ejournal.itbwigalumajang.ac.id/index.php/asset

Table 1. Score Matrix for Multiauthor Papers

Writers	Order of specific writer					
	1	2	3	4	5	6
1	1.00					
2	0.60	0.40				
3	0.47	0.32	0.21			
4	0.42	0.28	0.18	0.12		
5	0.38	0.26	0.17	0.11	0.08	
6	0,37	0,24	0,16	0,11	0,07	0,05

Source: author's calculations (2023)

To analyze the trend and level of interest in the topic, the authors utilized a graphical analysis by creating a plot that represents the number of papers published on moral hazard in the banking sector for each year from 2012 to 2023. The graph, displayed as Figure 2, reveals a distinct downward trend in research interest in this area over time. Notably, there has been a decrease in the number of papers published in recent years. This decline suggests that the present time is favorable for conducting a comprehensive review of the available literature on this subject.

Table 2. Number of Articles Based on Search Results Using Scopus Related to the Topic of Moral Hazard in the Banking Industry from 2012 to 2023.

No	Journal title	Number of papers
1	Journal of Banking and Finance	15
2	Journal of Financial Stability	14
3	Journal of Financial Intermediation	6
4	Journal of Financial Economics	5
5	Journal of International Financial Markets, Institutions and Money	5
6	Journal of Asian Finance, Economics and Business	4
7	Journal of Financial Services Research	4
8	Applied Economics	3
9	Economic Modelling	3
10	Journal of International Money and Finance	3
11	Journal of Monetary Economics	3
12	Journal of Money, Credit and Banking	3
13	Journal of Risk Finance	3

Source: author's calculations (2023)

Table 2 presents the distribution of papers published in various journals from 2012 to 2023. Among the 195 papers analyzed, they were spread across a total of 120 different journals. Notably, the journal JBF published the highest number of moral hazard papers with 15 publications, followed closely by JFS with 14 papers. Other journals that featured significant contributions on the topic include JFI (6 papers), JFE (5 papers), JIFMIM (5 papers), JAFEB (4 papers), and JFSR (4 papers). Furthermore, in addition to the previously mentioned journals, six journals from AE, EM, JIMF, JME, JMCB, and JRF had three papers each.

Moreover, there were 18 journals (American Economic Journal: Macroeconomics, Applied Financial Economics, Comparative Economic Studies, Economic History Review, Emerging Markets Finance and Trade, Finance Research Letters, IMF Economic Review, International Journal of Financial Studies, International Journal of Islamic and Middle Eastern Finance and Management, Journal of Central Banking Theory and Practice, Journal of Economic Behavior and Organization, Journal of Financial and Quantitative Analysis, Journal of Financial Regulation, Management Science, North American Journal of Economics and Finance, Review of Economic Studies, Review of Finance, Studies in Economics and Finance) that published two papers each, and a total of 89

journals (Abacus, African Development Review, American Sociological Review, Asian Journal of Accounting Research, Asia-Pacific Journal of Financial Studies, Australian Economic Papers, Banking and Finance Review, British Accounting Review, Business Ethics, Cambridge Journal of Economics, Cambridge Yearbook of European Legal Studies, Central European Journal of Operations Research, China Finance and Economic Review, China Finance Review International, Cogent Economics and Finance, Columbia Law Review, Corporate Governance and Organizational Behavior Review, Economic Analysis and Policy, Economic Notes, Economic Policy, Economics Bulletin, Economics of Innovation and New Technology, Electronic Commerce Research, Empirical Economics, European Business Organization Law Review, European Journal of Economics and Economic Policies: Intervention, European Journal of Finance, Finance and Stochastics, Financial Management, International Economic Review, International Economics, International Economics and Economic Policy, International Insolvency Review, International Journal for Equity in Health, International Journal of Central Banking, International Review of Applied Economics, International Review of Finance, International Review of Financial Analysis, IOP Conference Series: Earth and Environmental Science, Journal of Applied Economics, Journal of Banking Regulation, Journal of Business Ethics, Journal of Business Finance and Accounting, Journal of Computational and Applied Mathematics, Journal of Contemporary Accounting and Economics, Journal of Economic Cooperation and Development, Journal of Economic Dynamics and Control, Journal of Economic Education, Journal of Economic Policy Reform, Journal of Economic Studies, Journal of Economic Theory, Journal of Economics/ Zeitschrift fur Nationalokonomie, Journal of European Integration, Journal of Financial Economic Policy, Journal of Financial Regulation and Compliance, Journal of Forest Economics, Journal of International Business Studies, Journal of Marketing Research, Journal of Mathematical Economics, Journal of Multinational Financial Management, Journal of Political Economy, Journal of Property Investment and Finance, Journal of Risk and Insurance, Journal of Small Business and Enterprise Development, Kybernetes, Law and Economics Yearly Review, Macroeconomic Dynamics, Manufacturing and Service Operations Management, New Economic Windows, Oxford Bulletin of Economics and Statistics, Pacific Basin Finance Journal, Physica A: Statistical Mechanics and its Applications, PLoS ONE, Production and Operations Management, Public Choice, Research in International Business and Finance, Review of Corporate Finance Studies, Review of Economic Dynamics, Review of Quantitative Finance and Accounting, SAGE Open, Scottish Journal of Political Economy, SERIEs, Source, Sustainability (Switzerland), Technological Forecasting and Social Change, Texas Law Review, University of Chicago Law Review, West European Politics, World Bank Economic Review) had one paper each on the topic of moral hazard. These additional figures highlight the widespread coverage and interest in the subject across various academic publications.

Table 3. Most Frequently Cited Journals

Source	Cites per Paper	Times per Paper
Applied Economics	33	11,00
Economic Modelling	30	10,00
Journal of Asian Finance, Economics and Business	24	8,00
Journal of Banking and Finance	635	211,67
Journal of Financial Economics	659	219,67
Journal of Financial Intermediation	130	43,33
Journal of Financial Services Research	84	28,00
Journal of Financial Stability	481	160,33
Journal of International Financial Markets, Institutions and Money	264	88,00
Journal of International Money and Finance	74	24,67
Journal of Monetary Economics	44	14,67
Journal of Money, Credit and Banking	151	50,33
Journal of Risk Finance	26	8,67

Source: data processed by Publish or Perish version 8 (2023)

The studies by Duchin & Sosyura (2014), Acharya & Naqvi (2012), and Cai et al. (2014) shed light on different aspects of bank behavior and its implications for risk-taking, liquidity management, and financial resource allocation. Duchin and Sosyura's study highlights the moral hazard behavior of banks following government aid, suggesting that banks increase their risk exposure despite improved capital ratios. This underscores the importance of monitoring and regulating the behavior of banks receiving government support. Acharya and Naqvi's research explores the relationship between bank liquidity management, risk-taking behavior, and systemic risk. The findings emphasize the trade-off faced by banks between maintaining liquidity and taking on risk for profitability. Understanding this dynamic is crucial for assessing the buildup of systemic risks and implementing effective risk management strategies. Lastly, Cai, Chen, and Xiao's investigation focuses on the roles of bank credit and trade credit in firms' operational decisions. By examining how firms utilize these financial resources to finance their operations and manage working capital, their study contributes to a better understanding of the interplay between financial resources and operational efficiency.

Table 4. Most Frequently Cited Papers

Authors	Research Focus	Number of Cites
Acharya & Naqvi (2012)	Exploring how the availability of ample liquidity can trigger the emergence of asset price bubbles in the banking sector.	266
Cai et al. (2014)	Investigating the functions of bank and trade credits within a supply chain, considering a retailer with limited capital facing uncertain demand.	205
Duchin & Sosyura (2014)	Analyzing the influence of government assistance on the risk-taking behavior of banks.	203
Anginer et al. (2014)	Examining the connection between deposit insurance, bank risk, and systemic vulnerability during financial crisis and its preceding years.	166
Zhang et al. (2016)	Assessing the influence of Non-Performing Loans (NPLs) on the behavior of banks in China.	154
Soedarmono et al. (2013)	Evaluating the impact of bank competition on financial stability in emerging markets, particularly during crisis periods.	134
Berger et al. (2016)	Investigating the roles of bank ownership, management, and compensation structures in the failures of banks during financial crisis.	117
Gropp et al. (2014)	Utilizing a natural experiment to study the consequences of government guarantees on bank risk-taking.	115
Ashraf (2017)	Analyzing how political institutions affect the risk-taking behavior of banks.	91
Odeyemi & Nixon (2013)	Comparing health and economic indicators, examining the structure of each country's National Health Insurance System (NHIS) within the broader healthcare system, and assessing the impact on financing equity and healthcare accessibility.	89
Lin et al. (2013)	Examining the effect of Directors' and Officers' Liability Insurance (D&O insurance) on the interest rates charged on bank loans.	88
Black & Hazelwood (2013)	Investigating the impact of TARP capital injections on bank risk-taking by analyzing the risk ratings of banks.	85

E-ISSN : 2598-6074, ISSN : 2598-2885
Available online at:
http://ejournal.itbwigalumajang.ac.id/index.php/asset

Acharya et al. (2012)	Central bank as rationale for liquidity in imperfect competition in the banking sector.	84
Boissay et al. (2016)	The banking crisis at the heart of the credit-intensive boom caused a deep and long-lasting recession which is explained by the DSGE model.	82
Demirgüç-Kunt et al. (2015)	Provides a comprehensive global database of deposit insurance arrangements.	71
Cukierman (2013)	The changes that occur in the behavior and monetary policy instruments used by major central banks when a crisis hits.	65
Kostovetsky (2015)	The moral hazard role of government interventions on the risk-taking behavior of US financial institutions before the 2008 financial crisis.	61
Azmat et al. (2015)	Explaining about the Dominance of Asset-Side Debt Contracts in Islamic Banks, Despite Many Considering Islamic Joint Venture Contracts (IJV) as the Ideal Islamic Financing Model.	61
Shaban et al. (2014)	Comprehensive Examination of Banks' Willingness to Lend to Small and Medium-sized Enterprises (SMEs) with a Distinction Between Conventional and Shariah Banks in Indonesia.	59
Hryckiewicz (2014)	The crisis that occurred in systemic banking has put pressure on the national government to intervene.	54
Acharya et al. (2016)	Optimal bank leverage theory so that the benefits of debt in encouraging loan monitoring are balanced with equity in reducing risk transfer.	54
Yoshino & Taghizadeh-Hesary (2019)	Explaining the theoretical model and empirical analysis of the factors that determine the optimal credit guarantee ratio.	53
Keister (2016)	An efficient policy response when a crisis occurs is to use public resources to increase the private consumption of loss-making investors.	52
Akin et al. (2014)	To identify the determinants of real estate and credit bubbles.	52

Source: author's summary results (2023)

Together, these studies provide valuable insights into the behavior of banks and firms, highlighting the importance of effective risk management, regulatory oversight, and financial resource allocation in maintaining a stable and sustainable financial system. Future research in these areas can further enhance our understanding and inform policymakers and practitioners in their efforts to promote financial stability and sound business practices.

Classification of Previous Research on Moral Hazard in the Banking Industry

The JEL (Journal of Economic Literature) codes are a standardized system used to classify and categorize research articles based on their subject areas within economics. Each code represents a specific field or subfield of study. Here's the breakdown of the JEL codes based on summaries of the 195 selected publications:

- G (G0, G1, G2, G3, G4): Financial Economics - General (G0), Financial Institutions and Services (G1), Corporate Finance and Governance (G2), Financial Economics - Investment and Portfolio Choices (G3), Financial Economics - Financing Policy (G4).
- E (E3, E4, E5, E6, E8): Macroeconomics and Monetary Economics - General (E3), Money and Interest Rates (E4), Forecasting and Simulation (E5), Empirical Macroeconomics and Macroeconomic Policy (E6), Consumption, Saving, Production, Investment, Labor Markets,

E-ISSN : 2598-6074, ISSN : 2598-2885
Available online at:
http://ejournal.itbwigalumajang.ac.id/index.php/asset

and Informal Economy (E8).

- D (D0, D1, D2, D4, D7, D8): Microeconomics - General (D0), Household Behavior and Family Economics (D1), Production and Organizations (D2), Market Structure, Pricing, and Design (D4), Analysis of Collective Decision-Making (D7), Information, Knowledge, and Uncertainty (D8).
- (O1, O3, O4): Economic Development, Innovation, Technological Change, and Growth - General (O1), Innovation and Invention: Processes and Incentives (O3), Economic Growth and Aggregate Productivity (O4).
- C (C1, C2, C3, C5, C6, C7, C9): Mathematical and Quantitative Methods - General (C1), Econometric and Statistical Methods and Methodology - General (C2), Multiple or Simultaneous Equation Models; Multiple Variables (C3), Econometric Modeling (C5), Game Theory and Bargaining Theory (C6), Information, Knowledge, and Uncertainty - General (C7), Design of Experiments and Sample Surveys (C9).
- H (H1, H2, H3, H4, H7, H8): Public Economics - General (H1), Fiscal Policies and Behavior of Economic Agents (H2), Taxation, Subsidies, and Revenue (H3), Externalities and Redistributive Effects (H4), State and Local Government; Intergovernmental Relations (H7), Public Administration (H8).

Table 5. Most Frequently Used JEL Code

CODE	Total	Number of Articles
G (G0, G1, G2, G3, G4)	444 (24, 22, 312, 85, 1)	186
E (E3, E4, E5, E6, E8)	42 (3, 13, 17, 8, 1)	33
D (D0, D1, D2, D4, D7, D8)	30 (1, 2, 3, 4, 2, 18)	24
O (O1, O3, O4)	19 (14, 3, 2)	19
C (C1, C2, C3, C5, C6, C7, C9)	14 (2, 5, 1, 2, 1, 2, 1)	11
H (H1, H2, H3, H4, H7, H8)	13 (4, 1, 1, 2, 1, 4)	11

Source: author's calculations (2023)

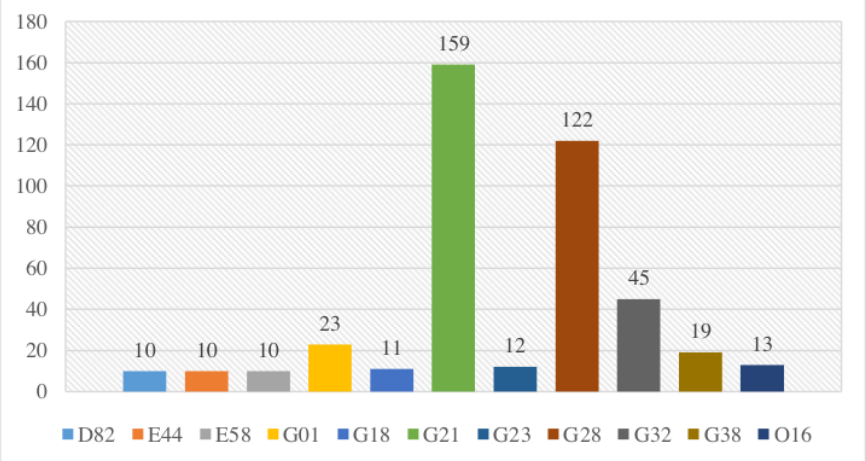

Figure 3. Most Frequently Used JEL Classification for Research on Moral Hazard in the Banking Industry
Source: author's calculations (2023)

Table 5 provides valuable insights into the distribution of publications based on their JEL codes. The majority of publications, totaling 186 articles, were classified under the G category. This suggests a significant focus on research related to General Financial Markets and Institutions.

The E category accounted for 33 publications, indicating a notable emphasis on research in the fields of Macroeconomics and Monetary Economics. The D category comprised 24 publications, reflecting a substantial interest in Microeconomics and Industrial Organization. The O category included 19 publications, highlighting research related to Economic Development, Innovation, Technological Change, and Growth. Both the C and H categories consisted of 11 publications each, indicating research interests in Economic Theory and Econometrics, as well as Public Economics, respectively.

The breakdown of JEL codes provides valuable insights into the thematic areas covered by the selected publications. It showcases the diverse range of topics within the field and helps researchers, policymakers, and practitioners gain a better understanding of the prevailing research trends and areas of focus within the analyzed publications.

An Insight into JEL Code Distribution among Selected Moral Hazard Publications

The analysis of the 195 selected publications reveals the distribution of JEL codes as follows, based on their summaries:

- G21 code pertains to the study of banks, depository institutions, microfinance institutions, and mortgages. It covers topics such as banking operations, financial intermediation, lending practices, and related issues. Out of the 195 publications, 159 of them fall under the research category of code G21. This indicates a substantial focus on research activities in this specific field, highlighting its importance and potential for further exploration. The prevalence of publications in this category provides a valuable foundation for knowledge development and offers insights for policymakers and stakeholders. Continued research efforts can contribute to advancements in the field associated with code G21.
- G28 code focuses on the study of government policies and regulations related to financial institutions and markets. It includes topics such as financial regulation, monetary policy, fiscal policy, and government interventions in the economy. Out of the analyzed publications, 122 of them are research papers categorized under the code G28. This finding highlights the significant presence and research focus in this field, positioning it as the second largest majority after the G21 code. The importance and concentration of research in this area provide valuable insights for policymakers and industry professionals. Further research within the G28 code can drive progress and informed decision-making in the field.
- G32 code relates to the study of financing policies, capital structure decisions, ownership structures, and the valuation of firms. It covers topics such as corporate finance, capital budgeting, dividend policy, and the determinants of firm value. There are 45 publications that are categorized under the code G32, suggesting a substantial amount of research conducted in this particular area.
- G01 code pertains to the study of financial crises, their causes, consequences, and policy responses. It includes research on systemic financial instability, banking crises, asset price bubbles, and the impact of financial crises on the economy.
- G38 code focuses on government policies and regulations related to ownership and control of businesses and industries. It covers topics such as privatization, nationalization, government intervention in markets, and the role of the state in the economy.
- O16 code pertains to the study of financial markets, savings, capital investment, and corporate finance within the context of economic development. It covers topics such as access to financial services, investment decisions, corporate governance, and the role of financial institutions in promoting economic growth.
- G23 code focuses on the study of pension funds, non-bank financial institutions, financial instruments, and institutional investors. It covers topics such as pension fund management, insurance companies, investment funds, and the role of institutional investors in financial

markets.

- G18 code relates to the study of general financial markets and the government policies and regulations that impact them. It covers topics such as market structure, market efficiency, financial market regulation, and the effects of government interventions on financial markets.
- D82 code pertains to the study of asymmetric and private information in economic interactions and the design of mechanisms to mitigate information asymmetry. It covers topics such as adverse selection, moral hazard, principal-agent relationships, and the design of contracts and incentives.
- E44 code focuses on the interplay between financial markets and the macroeconomy. It includes research on the impact of financial markets on macroeconomic variables such as interest rates, investment, consumption, and the transmission of monetary policy.
- E58 code pertains to the study of central banks and their policies. It includes research on the functions and operations of central banks, monetary policy frameworks, the role of central banks in stabilizing the economy, and the interaction between central banks and financial markets.

CONCLUSION

Based on the research objectives and the key findings or results provided, the comprehensive review of research on moral hazard in the banking industry from 2012 to 2023 has provided valuable insights into the research trends and themes within this field. The increasing interest in moral hazard is evident, although recent years have shown a decline in the number of published papers, indicating the need for further systematic reviews. The distribution of publications across journals, with the Journal of Banking and Finance (JBF) and the Journal of Financial Stability (JFS) leading the way, highlights the platforms where significant research contributions have been made. The selected studies have covered a wide range of topics, emphasizing the importance of effective risk management, regulatory oversight, and financial resource allocation for maintaining a stable financial system. The breakdown of JEL codes further reveals the dominant focus on General Financial Markets and Institutions (G21), government policies and regulations (G28), and Microeconomics and Industrial Organization (D). These findings contribute to understanding prevailing research trends and provide insights for future exploration. Ultimately, this research is valuable for policymakers and practitioners aiming to enhance financial stability and promote prudent practices within the banking industry.

REFERENCES

Acharya, V., & Naqvi, H. (2012). The seeds of a crisis: A theory of bank liquidity and risk taking over the business cycle. *Journal of Financial Economics*, *106*(2), 349–366. https://doi.org/10.1016/j.jfineco.2012.05.014

Acharya, V. V, Gromb, D., & Yorulmazer, T. (2012). Imperfect Competition in the Interbank Market for Liquidity as a Rationale for Central Banking. *American Economic Journal: Macroeconomics*, *4*(2), 184–217. https://doi.org/10.1257/mac.4.2.184

Acharya, V. V, Mehran, H., & Thakor, A. V. (2016). Caught between Scylla and Charybdis? Regulating Bank Leverage When There Is Rent Seeking and Risk Shifting. *The Review of Corporate Finance Studies*, *5*(1), 36–75. https://doi.org/10.1093/rcfs/cfv006

Akin, O., Montalvo, J. G., García Villar, J., Peydró, J.-L., & Raya, J. M. (2014). The real estate and credit bubble: evidence from Spain. *SERIEs*, *5*(2), 223–243. https://doi.org/10.1007/s13209-014-0115-9

Anginer, D., Demirguc-Kunt, A., & Zhu, M. (2014). How does deposit insurance affect bank risk? Evidence from the recent crisis. *Journal of Banking & Finance*, *48*, 312–321. https://doi.org/https://doi.org/10.1016/j.jbankfin.2013.09.013

Ashraf, B. N. (2017). Political institutions and bank risk-taking behavior. *Journal of Financial*

Stability, *29*, 13–35. https://doi.org/https://doi.org/10.1016/j.jfs.2017.01.004

Azmat, S., Skully, M., & Brown, K. (2015). Can Islamic banking ever become Islamic? *Pacific-Basin Finance Journal*, *34*, 253–272. https://doi.org/https://doi.org/10.1016/j.pacfin.2015.03.001

Berger, A. N., Imbierowicz, B., & Rauch, C. (2016). The Roles of Corporate Governance in Bank Failures during the Recent Financial Crisis. *Journal of Money, Credit and Banking*, *48*(4), 729–770. https://doi.org/https://doi.org/10.1111/jmcb.12316

Black, L. K., & Hazelwood, L. N. (2013). The effect of TARP on bank risk-taking. *Journal of Financial Stability*, *9*(4), 790–803. https://doi.org/https://doi.org/10.1016/j.jfs.2012.04.001

Boissay, F., Collard, F., & Smets, F. (2016). Booms and Banking Crises. *Journal of Political Economy*, *124*(2), 489–538. https://doi.org/10.1086/685475

Cai, G., Chen, X., & Xiao, Z. (2014). The roles of bank and trade credits: Theoretical analysis and empirical evidence. *Production and Operations Management*, *23*(4), 583–598. https://doi.org/10.1111/poms.12035

Cukierman, A. (2013). Monetary policy and institutions before, during, and after the global financial crisis. *Journal of Financial Stability*, *9*(3), 373–384. https://doi.org/https://doi.org/10.1016/j.jfs.2013.02.002

Demirgüç-Kunt, A., Kane, E., & Laeven, L. (2015). Deposit insurance around the world: A comprehensive analysis and database. *Journal of Financial Stability*, *20*, 155–183. https://doi.org/https://doi.org/10.1016/j.jfs.2015.08.005

Dewan, S. (2012). Moral Hazard: A Tempest-Tossed Idea. *The New York Times*.

Dionne, G., Michaud, P. C., & Dahchour, M. (2004). Separating moral hazard from adverse selection and learning in automobile insurance: Longitudinal evidence from France. In *CentER Discussion Paper*. https://doi.org/10.1111/jeea.12018

Duchin, R., & Sosyura, D. (2014). Safer ratios, riskier portfolios: Banks' response to government aid. *Journal of Financial Economics*, *113*(1), 1–28. https://doi.org/10.1016/j.jfineco.2014.03.005

Falagas, M. E., Pitsouni, E. I., Malietzis, G. A., & Pappas, G. (2008). Comparison of PubMed, Scopus, Web of Science, and Google Scholar: strengths and weaknesses. *The FASEB Journal*, *22*(2), 338–342. https://doi.org/10.1096/fj.07-9492lsf

Foos, D., Norden, L., & Weber, M. (2010). Loan growth and riskiness of banks. *Journal of Banking and Finance*, *34*(12), 2929–2940. https://doi.org/10.1016/j.jbankfin.2010.06.007

Gorton, G., & Rosen, R. (1995). Corporate Control, Portfolio Choice, and the Decline of Banking. *The Journal of Finance*, *50*(5), 1377. https://doi.org/10.2307/2329321

Gropp, R., Gruendl, C., & Guettler, A. (2014). The Impact of Public Guarantees on Bank Risk-Taking: Evidence from a Natural Experiment*. *Review of Finance*, *18*(2), 457–488. https://doi.org/10.1093/rof/rft014

Gupta, C. P., & Jain, A. (2022). A Study of Banks' Systemic Importance and Moral Hazard Behaviour: A Panel Threshold Regression Approach. In *Journal of Risk and Financial Management* (Vol. 15, Issue 11). https://doi.org/10.3390/jrfm15110537

Hong, Y., & Chan, D. W. M. (2014). Research trend of joint ventures in construction: a two-decade taxonomic review. *Journal of Facilities Management*, *12*(2), 118–141. https://doi.org/10.1108/JFM-04-2013-0022

Hossain, M. M., & Chowdhury, A. U. M. (2015). Moral Hazard in Banking. *Journal of Banking & Financial Services*, *9*(1), 95–115. https://www.researchgate.net/publication/320685615_Moral_Hazard_in_Banking

Howard, G. S., Cole, D. A., & Maxwell, S. E. (1987). Research Productivity in Psychology Based on Publication in the Journals of the American Psychological Association. *American Psychologist*, *42*(11), 975–986. https://doi.org/10.1037/0003-066X.42.11.975

Hryckiewicz, A. (2014). What do we know about the impact of government interventions in the banking sector? An assessment of various bailout programs on bank behavior. *Journal of Banking & Finance*, *46*, 246–265. https://doi.org/https://doi.org/10.1016/j.jbankfin.2014.05.009

Husted, B. W. (2007). Agency, information, and the structure of moral problems in business. *Organization Studies*, *28*(2), 177–195. https://doi.org/10.1177/0170840606067990

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Ke, Y., Wang, S., Chan, A. P., & Cheung, E. (2009). Research Trend of Public-Private Partnership in Construction Journals. *Journal of Construction Engineering and Management*, *135*(10), 1076–1086. https://doi.org/10.1061/(asce)0733-9364(2009)135:10(1076)

Keister, T. (2016). Bailouts and Financial Fragility. *The Review of Economic Studies*, *83*(2), 704–736. https://doi.org/10.1093/restud/rdv044

Kostovetsky, L. (2015). Political capital and moral hazard. *Journal of Financial Economics*, *116*(1), 144–159. https://doi.org/https://doi.org/10.1016/j.jfineco.2014.12.003

Krugman, P. (2009). *The Return of Depression Economics and the Crisis of 2008*. W. W. Norton & Company.

Latsis, J., & Repapis, C. (2014). A model intervenes: The many faces of moral hazard. *Cambridge Journal of Economics*, *38*(4), 743–760. https://doi.org/10.1093/cje/bet069

Lin, C., Officer, M. S., Wang, R., & Zou, H. (2013). Directors' and officers' liability insurance and loan spreads. *Journal of Financial Economics*, *110*(1), 37–60. https://doi.org/https://doi.org/10.1016/j.jfineco.2013.04.005

Maclachlan, F. C. (2001). Market Discipline in Bank Supervision. *The Independent Review*, *VI*, 227–234. https://doi.org/10.1093/oxfordhb/9780199640935.013.0015

Marst R. C. (2011). Venture Capital and Private Equity. In *Portfolio Design*. Elsevier. https://doi.org/10.1002/9781118267660.ch10

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, *13*(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Odeyemi, I. A. O., & Nixon, J. (2013). Assessing equity in health care through the national health insurance schemes of Nigeria and Ghana: a review-based comparative analysis. *International Journal for Equity in Health*, *12*, 9. https://doi.org/10.1186/1475-9276-12-9

Schooner, H. M., & Taylor, M. W. (2010). Global Bank Regulation: Principles and Policies. *Global Bank Regulation*, 259–277. http://www.sciencedirect.com/science/article/pii/B9780126410037000179

Shaban, M., Duygun, M., Anwar, M., & Akbar, B. (2014). Diversification and banks' willingness to lend to small businesses: Evidence from Islamic and conventional banks in Indonesia. *Journal of Economic Behavior & Organization*, *103*, S39–S55. https://doi.org/https://doi.org/10.1016/j.jebo.2014.03.021

Shrieves, R. E., & Dahl, D. (2003). Discretionary accounting and the behavior of Japanese banks under financial duress. *Journal of Banking and Finance*, *27*(7), 1219–1243. https://doi.org/10.1016/S0378-4266(02)00252-2

Soedarmono, W., Machrouh, F., & Tarazi, A. (2013). Bank competition, crisis and risk taking: Evidence from emerging markets in Asia. *Journal of International Financial Markets, Institutions and Money*, *23*, 196–221. https://doi.org/https://doi.org/10.1016/j.intfin.2012.09.009

Tsai, C. C., & Wen, M. L. (2005). Research and trends in science education from 1998 to 2002: A content analysis of publication in selected journals. *International Journal of Science Education*, *27*(1), 3–14. https://doi.org/10.1080/0950069042000243727

Yamamoto, S., 山本信一, Yoneyama, T., 米山高生, & Kwon, W. J. (2012). An Experimental Study On Adverse Selection And Moral Hazard. *Hitotsubashi Journal of Commerce and Management*, *46*(1), 51–64. https://doi.org/10.15057/25369

Yi, H., & Wang, Y. (2013). Trend of the Research on Public Funded Projects. *The Open Construction and Building Technology Journal*, *7*(1), 51–62. https://doi.org/10.2174/1874836820130716002

Yoshino, N., & Taghizadeh-Hesary, F. (2019). Optimal credit guarantee ratio for small and medium-

sized enterprises' financing: Evidence from Asia. *Economic Analysis and Policy*, *62*, 342–356. https://doi.org/https://doi.org/10.1016/j.eap.2018.09.011

Zhang, D., Cai, J., Dickinson, D. G., & Kutan, A. M. (2016). Non-performing loans, moral hazard and regulation of the Chinese commercial banking system. *Journal of Banking and Finance*, *63*, 48–60. https://doi.org/10.1016/j.jbankfin.2015.11.010

turnitin Research Trend of Moral Hazard in Banking Industr

ORIGINALITY REPORT

18%	19%	20%	10%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	ejournal.stiewidyagamalumajang.ac.id Internet Source	6%
2	www.mdpi.com Internet Source	1%
3	researcharchive.lincoln.ac.nz Internet Source	1%
4	fenix.tecnico.ulisboa.pt Internet Source	1%
5	Submitted to The Hong Kong Polytechnic University Student Paper	1%
6	P. García-Castrillo, A. Montañés, F. Sanz-Gracia. "A worldwide assessment of scientific production in economics (1992-1997)", Applied Economics, 2002 Publication	1%
7	ascelibrary.org Internet Source	1%
8	namibian-studies.com Internet Source	1%

9	www.expert-grup.org Internet Source	1 %
10	jupidi.um.edu.my Internet Source	1 %
11	silo.pub Internet Source	1 %
12	researchcommons.waikato.ac.nz Internet Source	1 %
13	Submitted to Free University of Bolzano Student Paper	1 %
14	koreascience.or.kr Internet Source	1 %
15	thaiappraisal.org Internet Source	1 %
16	Submitted to Kaplan International Colleges Student Paper	1 %
17	repository.out.ac.tz Internet Source	1 %
18	transport.vgtu.lt Internet Source	1 %
19	unipub.lib.uni-corvinus.hu Internet Source	1 %
20	www.tdx.cat Internet Source	1 %

Exclude quotes	Off	Exclude matches	< 1%
Exclude bibliography	Off		

turnitin Research Trend of Moral Hazard in Banking Industr

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15

PAGE 16