

The Relationship Between RiskTaking and Comparability of Financial Statements With an Emphasis on the Characteristics of Ownership, Structure and Financial Security of Banks Admitted to the Tehran Stock Exchange.

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Abstract

Studying the prudence behavior of banks and the factors affecting it is of paramount importance for economic and financial policymakers, given the role banks play in financial markets and the rapid reflection of policies in this sector throughout the economy. Thus, this study mainly aims to examine the role of ownership concentration and bank size on the relationship between financial statement comparability and bank risk-taking. This is a correlation-regression analysis research study that uses an applied methodology in terms of performance outcome. The research period is seven years, including the financial statements of 2014-2020. The statistical population consists of banks listed on the Tehran Stock Exchange (TSE) selected by the screening method. Besides, econometric models were used to test research hypotheses and determine the relationships between independent and dependent variables, and the relevant hypotheses were examined using multivariate panel regression. The results demonstrated that financial statement comparability has a significant negative effect on bank risk-taking. It was also found that bank size and ownership concentration have a moderating effect on the relationship between financial statement comparability and bank risk-taking.

Keywords: Financial statement comparability, Bank risk-taking, Bank size, Ownership concentration

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Introduction

Transparent, comparable financial information is a critical component of accountability and making informed economic decisions, as well as a requirement for both private and public sector economic development and growth (Kim, 2015). Comparability helps users detect and understand similarities and differences, reduce the cost of information acquisition and processing, and increase the overall quantity and quality of information available about companies (De Franco et al., 2011). Comparability states that financial statements should be able to be compared with each other and not use the same and uniform accounting methods (Kim, 2015). Unlike other qualitative attributes, comparability is not specific to the information of a particular firm because comparability, by its very nature, requires the use of information from other companies in similar industries. Comparability reduces the motivation and ability of managers to hide negative news. This is because investors, by accessing and identifying information from similar firms, cannot only gain a better understanding of enterprise performance but also gain some negative news about it by drawing conclusions based on its performance or exposing its peers (Hutton et al., 2009).

During the recent financial crisis, accompanied by severe international financial instability, special attention was paid to major banks both in the international arena and domestic economy, as these centers, in case of bankruptcy, will have a significant impact not only on the global economy but also

on the domestic economy. When it comes to the criteria used in bank calculations, it is important to remember that, in the event of insolvency or bankruptcy, a larger bank will have a greater impact on the economy. A bank bankruptcy spillover will also have a greater impact on other financial market participants, and the active economy as the relationship between banks and financial institutions grows. Because of a bank's increasing importance in terms of increasing dependence and connection of other components of the banking network to its services, as well as its irreplaceability, if a bank ceases to operate, other banks will face a crisis, with the possibility of many of their operations being halted. The expansion of banks may result in a different financial statement structure for banks. Hence, bank size can be regarded as one of the banking variables influencing the banking system branches. With weak corporate governance, the growth of banks can affect bank management in the first place and downplay the need for accountability to shareholders, leading to reduced profitability in major banks. Moreover, unaccountable management will impose more risks on such banks to reorganize or improve them. Thus, this research explores the impact of bank size and ownership concentration on the relationship between financial statement comparability and risk-taking of banks listed on the TSE.

2. Theoretical framework

Banks and financial institutions have been exposed to certain risks and hazards as a result of their activities in investment,

granting facilities, issuing various corporate bonds/certificates of deposit/letters of guarantee, opening letters of credit, and playing an effective role in money and capital markets. Banks face a wide range of risks, including operational risks, credit risks, and market risks as the most important. Credit risk refers to losses resulting from deferred principal and interest payments by the customer. Natural or legal persons who have borrowed from a bank may not be able to repay it. Banks and financial institutions must be able to manage risk and measure credit risk at all times to avoid such risks.

On the other hand, credit risk is among the key factors influencing the banking system's health. Credit risk levels depend on the quality of bank assets, which, in turn, depends on the process of non-performing loans and the health and profitability of recipients of bank facilities. Thus, before extending credit to customers, banks must establish a set of payment ceiling rules. The amount of risk and capital held by the bank determines these restrictions. Moreover, to examine it more thoroughly, the areas in which the risk is concentrated must be identified, and appropriate decisions must be made about them. Market risk is related to the losses imposed on the bank's assets based on changes and fluctuations in market factors (such as exchange rate, interest rate, stock price, etc.). Operational risk refers to direct or indirect losses resulting from inadequate or incorrect intra-organization processes, individuals, systems, or extra-organizational events (Barati and Lorestani, 2016). Banks will face many problems if their risk-taking

increases. One of the problems of bank risk-taking is granting facilities to people with low credit rates. This increases the probability of failing to pay facility principal and interest and may lead to bankruptcy. Loans are, in fact, the largest and most obvious source of credit risk in banks. In other words, granting loans and facilities exposes the bank to risk, which, in turn, can adversely affect the bank's performance. For example, some of the problems of Iranian banks today are related to the increase in overdue claims and bad debts as a result of banks failing to employ a credit-risk measurement and management system. Concerns about the growth of commercial loans granted by banks have grown in recent years as a result of the ease with which banks grant loans and facilities. Some researchers believe that banks have started a new business by reducing loan interest rates and not tightening granting facilities, thereby increasing competition among loan applicants. Others say banks have become more willing to take risks despite economic development and past unforgettable loan losses. Each of the above explanations can be correct. Rapid loan growth may eventually result in large swings in loan losses and lower bank profits, sparking a new round of insolvency.

On the other hand, the operational risk may result in credit and market risks. For example, an operational error in business transactions, such as non-relocation, may lead to market or credit risks. Thus, risk management is a critical requirement for all financial institutions, including banks and insurance companies. Problem identification, development of strategic

and operational plans, and a final report are all part of a bank's risk management plan (Boateng et al., 2018).

As a quality-enhancing qualitative attribute, financial statement comparability can be defined as follows:

It's a type of qualitative information that allows users to compare and contrast two sets of economic phenomena (Foroughi and Ghasemzad, 2016). In general, the availability of information about peers facilitates comparability for foreign investors. Similarly, understanding financial statement information among companies facilitates comparability for investors. Li et al. (2015) explain that investors cannot achieve a better understanding of firm performance simply by accessing information and the ability to understand it. However, they receive valuable, relevant information through performance-based inference or peer information disclosure. For example, investors may acquire at least some negative information through performance-based inference or disclosure of their peers' information in the absence of bad news disclosure for a particular company. Thus, it plays a critical role in limiting managers' ability and motivation to accumulate bad news. More comparable financial statements lead to more consistent financial statement information between managers and other financial information users and more effective governance practices regarding internal controls. These factors reduce bank risk-taking (Habib et al., 2018).

Moreover, more comparable financial statements lead to a reduction in information asymmetry between the

board and management, leading to improved oversight and more meaningful evaluation of the board than managerial investment decisions (Chen et al., 2018). Moreover, transparent, comparable financial statement information may force management to take legal liabilities with greater conservatism, which reduces risk. In addition, comparable financial statements allow more external auditors and regulators to oversee banking activities and limit the ability of bank management to perform risky activities. Therefore, it can be said that there is a significant negative relationship between financial statement comparability and bank risk-taking.

On the other hand, firm size is among company characteristics that researchers have long considered to impact financial reporting quality. Several previous studies have found that the size of a company has a positive impact on financial reporting quality (such as Sajjadi et al., 2009; Akhgar and Karami, 2014). The establishment of an effective internal control system, access to large auditing firms, and respect for the credit and reputation cost are just a few of the arguments used to justify this relationship (Akhgar and Karami, 2014). Furthermore, larger companies benefit from stronger accounting systems because they have more financial resources. Thus, larger companies' comparability is higher than smaller companies', owing to the accounting system's better performance in reflecting economic events (as financial statements). According to Shojaeian and Askari (2017), bank size has a significant inverse relationship with its risk-taking. Bank risk-taking is directly influenced by

financial leverage. In addition, bank risk-taking is unaffected by growth opportunities. According to Shamsi (2016), bank size has a significant negative impact on bank risk-taking. Tobin's Q ratio, institutional ownership, the proportion of non-executives on board, and managerial ownership have a significant inverse impact on bank risk-taking, while systematic risk has a significant direct effect on bank risk-taking, according to the results of control variables. The availability of comparable information to major banks is just one of the mechanisms designed to reduce bank risk-taking because major banks are monitored closely by regulators, investors, analysts, and other stakeholders. There are other ways to avoid financial statements playing a role in reducing major bank risk-taking. Small banks, on the other hand, are less closely monitored and followed by analysts and investors, so comparable information from small banks likely has a significant impact on their risk-taking (Monzur Hasan et al., 2020).

On the one hand, corporate governance prioritizes the company's long-term viability. It aims to safeguard shareholders' interests against corporate executives, as well as to prevent the unintended transfer of wealth between different groups and the squandering of public rights and individual shareholders' interests. A good governance system can help auditors maintain their independence and contribute to the establishment of a transparent information space where economic actors can make better decisions. Because of recent events and corporate financial crises, corporate

governance undoubtedly plays an important role in business success today. An investigation into the causes and pathology of the failures of some large corporations, which resulted in significant losses, particularly for shareholders, revealed that the problem was the weakness of their corporate governance systems. Corporate governance, according to research, can improve corporate business standards, encourage, equip, and equip investors, and improve operations. Because it oversees the relationships between shareholders, board of directors, managers, and other stakeholders, it can be one of the most important factors in increasing a company's economic efficiency. According to Feshari (2017), state-owned banks are more vulnerable than private banks in this regard. However, bank risk is unaffected by ownership concentration. Privatized banks, on the other hand, have seen a significant reduction in risk in the post-privatization period. Rival banks (both private and state-owned) did not, however, experience significant changes in risk-taking during this time. Thus, the changes in bank risk might be attributed to their privatization.

Previous research has looked at how financial statement comparability affects liabilities in terms of credit risk (Kim et al., 2013), investment decisions (Chen et al., 2015), managers' willingness to forecast income, stock price risk (Kim et al., 2016), and debt maturity structure (Fang et al., 2016). Given the significance of bank size and ownership concentration, past research on the implications of financial statement comparability has produced intriguing insights. However,

there is a paucity of studies on the effects of financial statement comparability on bank risk-taking.

3. Research background and related work

3.1. Internal background

Rezaei et al. (2020) found a strong association between financial statement comparability and corporate cash holding in their study titled “The effect of company characteristics on the relationship between financial statement comparability and corporate cash holding.” According to the data, due to ownership concentration and the quality of financial reporting, there is a strong negative association between financial statement comparability and cash holding. Furthermore, funding constraints have no bearing on the relationship between financial statement comparability and cash holding.

Faraji et al. (2020) used multiple panel data-based regression analysis to investigate data from 110 businesses admitted to the TSE from 2017 to 2012 in a study titled “Financial Statement Comparability, Product Market Competition, and Tax Avoidance.” They came to the conclusion that financial statement comparability, as a governance mechanism, deters managers from engaging in opportunistic behavior, such as tax evasion. The results also reveal that the negative association between comparability and tax evasion is less severe in highly competitive industries. This result confirms that it will increase competitive pressure and motivate managers to avoid taxes so that they can invest more and outperform competitors.

Salehi and Abdoli Mahmoudabad (2019) found a direct link between auditor expertise in the industry and firm risk-taking in their study “The Impact of Auditor Expertise in Industry on the Risk-Taking of Companies Listed on TSE.” These findings also indicate that the institutional ownership percentage will have an increasingly direct impact on the relationship between the auditor's industry expertise and the risk-taking of companies.

Hatamian et al. (2018) found that financial statement comparability directly affects profit response coefficient in a study titled Investigation of the effect of financial statement comparability on accounting profit response coefficient with an emphasis on audit quality in companies admitted to the TSE. The relationship between financial statement comparability and accounting profit response rate is also affected by audit quality, which intensifies the relationship. Studying the effect of financial statement comparability on cash holding was carried out by Ebrahimipour et al. (2018). To test research hypotheses, 80 companies listed on the TSE between 2013 and 2016 were screened using a selective screening method, and hypotheses were tested using panel data regression analysis. The financial statement comparability variable was also calculated using data from 2010 to 2012. The De Franco et al. (2011) model was used to assess financial statement comparability in this study. Control variables such as the opportunity cost of investing in the company's cash assets, R&D costs, operating cash flow (OCF), firm age, and firm size were also included

to test the hypotheses. Finally, as a moderating variable, the role of institutional shareholders was assessed.

In summary, the results of the significance test of the coefficients based on fitted regression equations show no significant relationship between financial statement comparability and cash holding. Institutional shareholders, on the other hand, will increase the negative effects of financial statement comparability and cash holding, according to the results of the H2 test. In other words, institutional shareholders' moderating role has been confirmed.

Saqzadeh et al. (2017) found that the profit growth rate as a measure of financial statement comparability affects the risk of falling expected returns of stocks. Their study examines the effect of financial statement comparability on the risk of falling expected returns of companies. Finally, the findings revealed that the volatility of the liquidity ratio as a measure of financial statement comparability impacts the risk of lower expected stock returns.

Shojaeian and Askari (2017) looked at the 17 banks listed on the TSE between 2006 and 2015 in a study titled "The Impact of Bank Size, Growth Opportunities, and Financial Leverage on the Risk-Taking of the Banks Listed on the TSE." They concluded that the size of a bank has a significant negative impact on bank risk-taking. Bank risk-taking is significantly influenced by financial leverage. Bank risk-taking is unaffected by growth opportunities. Tobin's Q ratio, institutional ownership, the proportion of non-executive board members, and management ownership all have a

substantial inverse effect on bank risk-taking, according to the results of control variables. Furthermore, bank risk-taking is directly affected by systematic risk.

In a study titled "Studying the Impact of Ownership Structure on the Risk-Taking Behavior of Private and State-Owned Banks in Iran," Feshari (2017) discovered that state-owned banks are more susceptible to risk than private banks (Dynamic Panel Data Approach). Ownership concentration, on the other hand, has little effect on bank risk. Rival banks (other private and state-owned banks) did not see major changes in risk during the post-privatization period, despite the fact that privatized banks had a significant drop in risk. Thus, the changes in bank risk can be attributed to the privatization of the institutions.

Shamsi (2016) found that bank size has a significant inverse effect on bank risk-taking in a paper titled Studying the effect of bank size and financial leverage on risk-taking of banks listed on the TSE. Bank risk-taking is heavily influenced by financial leverage. Control variables revealed that Tobin's Q ratio, institutional ownership, non-executive board proportion, and managerial ownership all have a significant inverse effect on bank risk-taking. Furthermore, systematic risk has a direct influence on bank risk-taking.

3.2. External background

In a study entitled financial statement comparability and bank risk-taking, Monzur Hasan et al. (2020) concluded that banks with more comparable financial statements are less risk-averse. The results also indicated a more pronounced negative relationship

between financial statement comparability and risk-taking in banks with agency problems. It was also found that there is a milder negative relationship between financial statement comparability and bank risk-taking in larger banks. In other words, firm size modulates the negative relationship between financial statement comparability and bank risk-taking.

In a study comparing financial statements and corporate tax avoidance, Majeed and Yan (2019) showed evidence from China that motivates increased reporting quality and financial information comparability to attract investors regarding higher financial statement comparability and market competition. This eventually leads to a reduction in tax avoidance. Moreover, higher competition can increase financial reporting quality and financial information comparability. This makes it difficult to hide tax avoidance activities and consequently reduces tax avoidance. Moreover, market competition accompanied by higher comparability even prevents tax avoidance as much as possible. That is, higher competition helps strengthen the relationship between comparability and tax avoidance.

In a study, Boateng et al. (2018) investigated the relationship between political connections of board members, ownership structure, and credit risk in banks listed on the Shanghai Stock Exchange (SSE) during 2014-2003. Hypothesis testing results indicated that bank ownership type modulates the relationship between political connections and credit risk. That is to say, state-owned banks appear to be more sensitive to credit risk, while managers of

private banks tend to be more effective in effective supervision.

Albring et al. (2018) investigated the impact of management earnings forecasts, managerial incentives, and corporate risk-taking in the 1994-2011 period. Hypothesis testing results show that management earnings forecasts can force managers to avoid profitable investments in the long run. Furthermore, there is a significant negative relationship between management earnings forecasts and corporate risk-taking and also between management ownership and corporate risk-taking.

In his study "Accounting Comparability, Audit Effort and Audit Outcomes," Zhang (2018) examined the outcomes and advantages of accounting comparability for independent audit in terms of audit effort and outcomes. He argues that accounting comparability between partner companies in the same industries reflects the similarity and interdependence of corporate work environments and their financial reporting, which is likely to reduce the costs of acquiring, processing, and testing information. Moreover, the availability of information about compared customers enhances audit efficiency and accuracy. His results show that comparability has a negative relationship with audit cost, audit delay, and incorrect audit opinion.

In a study titled "The Impact of Macroeconomic Factors on Credit Risk in Conventional Banks and Islamic Banks: Evidence from Indonesia," Lin et al. (2016) investigated the impact of macroeconomic variables on risk-taking behavior in Islamic and non-Islamic banks in the period 2015-2008. They

showed that while the banking sector plays a key role in economic development, it will be vulnerable to macroeconomic instability, increasing credit risk in banks. Experimental results indicate that Islamic banks are more resilient in times of crisis. The findings also show that exchange rate and liquidity have the greatest effect on risk-taking in Islamic banks, and non-Islamic banks are more risk-taking than Islamic banks.

In a study titled “The Impact of Financial Statement Comparability on Accrual-Based Earnings Management,” Sohn et al. (2016) explored the relationship between financial statement comparability and earnings management. They discovered that the accounting information environment would be more transparent to investors by improving accounting information comparability. This makes accrual-based earnings management (AEM) complicated and costly, and managers replace real earnings management with AEM. Thus, financial statement comparability also serves as a governance mechanism.

4. Research hypothesis

H1: Financial statement comparability significantly affects bank risk-taking.

H2: Bank size significantly affects the relationship between financial statement comparability and bank risk-taking.

H3: *Ownership concentration significantly affects the relationship between financial statement comparability and bank risk-taking.*

5. Methodology

This research uses regression analysis methodology in nature and content. It analyzes the impact of variables utilizing

secondary data extracted from the financial statements of companies listed on the TSE. This research has been carried out in the framework of deductive-inductive reasoning. Besides, it is a retrospective (quasi-experimental) research study based on analyzing past and historical information (financial statements). It is also a desk, analytic-causative research study based on the analysis of multivariate panel regression models. It is also an applied research study in terms of purpose and descriptive regression in terms of method.

5.1. Statistical population and sample

The statistical population consists of banks listed on the TSE. Herein, the financial statements of one of the banks listed on the TSE have been reviewed over a period of 7 years (2014-2020). Using the systematic removal method, 19 banks were selected.

5.2. Research model and its measurement

Research models are adapted from Monzur Hasan et al. (2020).

The first model for the H1 test:

$$\begin{aligned}
 RISK\,TAKING_{it} &= \beta_0 + \beta_1 COM_{it} \\
 &+ \beta_2 ROA_{it} + \beta_3 CAP_{it} \\
 &+ \beta_4 DINT_{it} + \beta_5 LLP_{it} \\
 &+ \beta_8 CHARTER_{it} \\
 &+ \beta_7 IND_{it} + \beta_8 AGE_{it} \\
 &+ \varepsilon_{it}
 \end{aligned}$$

The second model for the H2 test:

$$\begin{aligned}
 RISK TAKING_{it} &= \beta_0 + \beta_1 COM_{it} \\
 &+ \beta_2 SIZE_{it} + \beta_3 (COM_{it} \\
 &* SIZE_{it}) + \beta_4 ROA_{it} \\
 &+ \beta_5 CAP_{it} + \beta_6 DINT_{it} \\
 &+ \beta_7 LLP_{it} \\
 &+ \beta_8 CHARTER_{it} \\
 &+ \beta_9 IND_{it} + \beta_9 AGE_{it} \\
 &+ \varepsilon_{it}
 \end{aligned}$$

The third model for the H3 test:

$$\begin{aligned}
 RISK TAKING_{it} &= \beta_0 + \beta_1 COM_{it} \\
 &+ \beta_2 focus_{it} + \beta_3 (COM_{it} \\
 &* focus_{it}) + \beta_4 ROA_{it} \\
 &+ \beta_5 CAP_{it} + \beta_6 DINT_{it} \\
 &+ \beta_7 LLP_{it} \\
 &+ \beta_8 CHARTER_{it} \\
 &+ \beta_9 IND_{it} + \beta_9 AGE_{it} \\
 &+ \varepsilon_{it}
 \end{aligned}$$

where i , t , and ε_{it} denote the bank, year, and model residuals, respectively.

- Dependent variable:

Bank risk-taking ($RISK TAKING_{it}$): The logarithm ($Ln(Z-Score)$) is obtained, and the $Z-Score$ is calculated as follows (Gotz, 2017):

$$ZScore = \frac{ROA + CAPITAL}{SDROA}$$

year in question, a set of data exists whose average implies the comparability degree.

- Moderating variables:

Bank size ($SIZE_{it}$): The natural logarithm of the bank assets' book value

where ROA , $CAPITAL$, and $SDROA$ represent the ratio of net profit to book value of assets, the bank capital/assets' book value ratio, and the standard deviation of three periods of return on assets, respectively. By this measure, the higher the $Z-Score$, the lower the company risk, and vice versa.

- Independent variable:

Financial statement comparability (COM_{it}): To measure this variable, the following equation must initially be estimated:

$$Earnings_{ijt} = \hat{\alpha}_j + \hat{\beta}_j Return_{it} + \varepsilon_{ijt}$$

where $Return_{it}$ and $Earnings$ are company returns and predicted earnings, respectively.

Next, the estimated model residual for each year-company is determined. Furthermore, accounting comparability between companies i and j is determined as a negative number. Mean absolute difference between predicted earnings is defined based on the operations of companies i and j by the following equation:

$$COM_{it} = -\frac{1}{sample} \times \sum_{t=5}^t |E(Earnings_{iit}) - E(Earnings_{ijt})|$$

According to the results for each year-company for all sample companies in the Ownership concentration ($focus_{it}$) Total percentage of company shares owned by individuals and organizations with more than 5% corporate ownership

- Control variables:

Return on assets (ROA_{it}): Ratio of net profit to book value of assets

Capital adequacy (CAP_{it}): reported in the bank risk assessment report section attached to the audited financial statements report

Income changes ($DINT_{it}$): income changes between period t and t-1 divided by period t-1

Doubtful accounts (LLP_{it}): The ratio of doubtful accounts to total paid facility

Tobin's Q ratio ($CHARTER_{it}$): Ratio of the total market value of debt to asset's book value

Bank's age (AGE_{it}): Number of years since the establishment of the bank.

6. Presentation and analysis of findings

6.1. Descriptive statistics

This section first examines descriptive statistics, including measures of central tendency (max, min, mean) and measures of spread/dispersion, including standard deviation (SD).

Table 1. Statistical indicators of research variables

<i>Variable</i>	<i>Mean</i>	<i>Max</i>	<i>Min</i>	<i>SD</i>	<i>Observed</i>
Bank risk-taking	2.9206	6.1877	0.4270	1.1842	127
Financial statement comparability	87.3581	917.356	0.5314	142.021	133
Bank size	19.6509	22.7462	16.8246	1.2044	133
Ownership concentration	41.7256	91.0000	0.0000	29.8953	133
Return on assets	-0.0144	0.0769	-0.5386	0.0888	133
Capital adequacy	0.0791	0.1000	0.0600	0.0122	133
Income changes	0.1642	3.4893	-0.9938	0.7551	133
Doubtful accounts	0.0191	0.2309	0.0000	0.0328	133
Tobin's Q ratio	1.1249	3.5042	0.9446	0.3238	133
Bank's age	18.2105	58.0000	3.0000	13.0494	133

(Source: Researcher's findings)

According to Table 1, the average "income changes" variable is 16%, meaning that the banks surveyed have earned an average of 16% more revenue annually than the previous year. The

average of the "doubtful accounts" variable is 1.9%, i.e., the average amount of doubtful accounts in the surveyed banks is equal to 1.9% of the total paid facility. The average variable of "Tobin's

Q ratio” is 112%, i.e., the total market value of debt in the surveyed banks is 1.12 times the asset's book value. The average “bank's age” variable is 18.21, i.e., on average, more than 18 years since the establishment of the surveyed banks.

One of the conditions that must be met to apply regression analysis in testing research hypotheses is the normal distribution of the dependent variable.

6.2. Dependent variable distribution test

Table 3. Heteroscedasticity test

Model	Description	Statistic value	p-value	Result
1	LR	36.0878	0.0103	Heteroscedastic
2	LR	37.4312	0.0070	Heteroscedastic
3	LR	36.8841	0.0082	Heteroscedastic

(Source: Researcher's findings)

As can be seen, the estimated generalized least squares (EGLS)

method should be applied to test research models.

Table 4. Panel or mixed model identification (F-Limer Test)

Model	Description	Statistic value	p-value	Result
1	Cross-section F	2.1656	0.0083	Panel data
2	Cross-section F	2.1738	0.0071	Panel data
3	Cross-section F	2.0870	0.0115	Panel data

(Source: Researcher's findings)

As can be seen, there are effects for testing research models, the type of

which is determined using the Hausman test.

Table 5. Hausman test results

Model	Description	Statistic value	p-value	Result
1	Cross-section random	25.8608	0.0005	Fixed-effects
2	Cross-section random	24.1108	0.0041	Fixed-effects
3	Cross-section random	22.8202	0.0066	Fixed-effects

(Source: Researcher's findings)

Since the probability of testing research models is less than 5%, the

fixed-effects method should be applied to all three models.

Table 6. Results of the "absence of autocorrelated error terms" test

Model	Statistic value	p-value	Result
1	214.5007	0.0134	Presence of autocorrelated error terms
2	211.0324	0.0201	Presence of autocorrelated error terms
3	220.3278	0.0065	Presence of autocorrelated error terms

(Source: Researcher's findings)

According to the test results, since the F-statistic p-value in these models is less than 5% at a 95% confidence level, H1 is confirmed. Hence, there is no reason to confirm the lack of autocorrelation between the remaining terms. In other words, the assumption of lack of autocorrelated error terms is not established in research models and should be addressed.

6.4. Estimation of research models

6.4.1. Estimation of the first model

In the first model, bank risk-taking is a dependent variable, and financial statement comparability is an independent variable. The model test results are as follows (Table 7).

Table 7. Estimation of the first model

Variable	Coefficient	SE	t-statistic	Sig.
Financial statement comparability	-0.0041	0.0007	-5.2629	0.0019
Return on assets	5.1327	1.7601	2.9161	0.0268
Capital adequacy	-1.5601	2.7635	-0.5645	0.5929
Income changes	0.1645	0.0986	1.6676	0.1464
Doubtful accounts	6.3043	1.3964	4.5146	0.0040
Tobin's Q ratio	2.0189	0.4783	4.2207	0.0056
Bank's age	-0.1694	0.0269	-6.2867	0.0008
Intercept	3.4416	0.3944	8.7247	0.0001
Adjusted R2	0.3545		F-statistic	3.7683
Durbin-Watson (DW)	2.0696	Sig.		0.0000

(Source: Researcher's findings)

As can be seen, the p-value of the overall coefficient statistics (F statistic) is less than 5%, indicating a linear relationship between the independent and dependent variables as well as the statistical validity of the regression. Moreover, the p-value of the variable "financial statement comparability" is 0.0019, and its estimated coefficient sign is negative. Since the p-value is less than 5%, it can be said that there is a significant negative relationship between financial statement comparability and bank risk-taking. Therefore, H1 is approved.

Adjusted R2 is 35%, indicating that independent and control variables explain 35% of dependent variable changes.

6.4.2. Estimation of the second model

In the second model, bank risk-taking is a dependent variable, financial statement comparability is an independent variable, and bank size is a moderating variable. The model test results are as follows (Table 8).

Table 8. Estimation of the second model

Variable	Coefficient	SE	t-statistic	Sig.
Financial statement comparability	-0.0001	0.0000	-7.3354	0.0003
Bank size	-0.8816	0.4080	-2.1605	0.0331
Bank size * Financial statement comparability	0.0000	0.0000	5.9847	0.0010
Return on assets	6.4962	2.7110	2.3962	0.0184
Capital adequacy	-4.1450	6.2242	-0.6659	0.5070
Income changes	0.1804	0.1056	1.7089	0.0906
Doubtful accounts	7.1882	5.0389	1.4265	0.1569
Tobin's Q ratio	1.8764	0.5217	3.5962	0.0005
Bank's age	0.0220	0.1032	0.2137	0.8312
Intercept	17.5933	6.4681	2.7200	0.0077
Adjusted R2	0.3402		F-statistic	3.4071
Durbin-Watson (DW)	2.0541	Sig.		0.0000

(Source: Researcher's findings)

As can be seen, the p-value of the overall coefficient statistics (F statistic) is less than 5%, indicating a linear relationship between the independent and dependent variables as well as the statistical validity of the regression. Moreover, the p-value of the variable bank size \times financial statement comparability is 0.0010, and its estimated coefficient sign is positive. Since the p-value is less than 5%, it can be said that there is a significant positive relationship between bank size \times financial statement comparability and bank risk-taking. In other words, bank size has a moderating effect on the relationship between financial statement comparability and bank risk-taking. Therefore, H2 is approved.

Adjusted R2 is 34%, indicating that 34% of dependent variable changes are explained by independent, moderating, and control variables.

6.4.3. Estimation of the third model

In the third model, bank risk-taking is a dependent variable, financial statement comparability is an independent variable, and ownership concentration is a moderating variable. The model test results are as follows (Table 9).

Table 9. Estimation of the third model

Variable	Coefficient	SE	t-statistic	Sig.
Financial statement comparability	-1.1751	0.1882	-6.2431	0.0008
Ownership concentration	-0.1206	0.0135	-8.9125	0.0001
Ownership concentration * financial statement comparability	0.0028	0.0010	2.7635	0.0327
Return on assets	5.3444	1.9794	2.7000	0.0356
Capital adequacy	-2.0659	2.7368	-0.7548	0.4789
Income changes	0.1625	0.1098	1.4796	0.1895
Doubtful accounts	6.6079	1.8953	3.4864	0.0130
Tobin's Q ratio	2.0211	0.5410	3.7355	0.0097
Bank's age	-0.1663	0.0333	-4.9809	0.0025
Intercept	3.4377	0.5637	6.0981	0.0009
Adjusted R2	0.3444		F-statistic	3.4515
Durbin-Watson (DW)	2.0555	Sig.		0.0000

(Source: Researcher's findings)

The p-value of overall coefficient statistics (F statistic) is less than five, indicating a linear relationship between independent and dependent variables and the statistical validity of regression. Moreover, the p-value of the variable ownership concentration \times financial statement comparability is 0.0327, and its estimated coefficient sign is positive. Since the p-value is less than 5%, it can be said that there is a significant positive relationship between ownership concentration \times financial statement comparability and bank risk-taking. In other words, ownership concentration has a moderating effect on the relationship between financial statement comparability and bank risk-taking. Therefore, H3 is also confirmed. Adjusted R2 is 34%, i.e., 34% of the dependent variable changes are explained

by the independent, moderating, and control variables.

7. Conclusion

The results demonstrated that financial statement comparability had a significant negative effect on bank risk-taking. Therefore, H1 was confirmed. The result of the H1 test was consistent with those of Monzur Hasan et al. (2020) and Albring et al. (2018). More comparability means bank profitability is more comparable with other banks. Comparative financial statements can be compared with each other in any bank. A bank has fewer comparative financial statements when its comparability is lower than other banks. In this case, the bank in question will have problems, indicating that it has deviated from the true course in its respective industry and is not under normal

conditions compared to other banks in the same industry. There is an inverse relationship between risk-taking and comparability; that is, the higher the comparability, the lower the risk-taking naturally. A bank will face less risk in the relevant industry if it operates in line with other banks.

In addition, bank size had a moderating effect on the relationship between financial statement comparability and bank risk-taking. Therefore, H2 was also confirmed. The results of the H2 test were consistent with those of Monzur Hasan et al. (2020), Rezaei et al. (2020), Shojaeian and Askari (2017), and Shamsi (2016). In terms of bank size, the larger the bank, the smoother its performance because it does not face the primary risks and those of small size. Small-sized banks are most affected and challenged by economic and political developments in the industry. In large-sized banks, the relationship between financial statement comparability and risk-taking is diminished because they are more stable, operate more smoothly, and can manage their crisis more easily. Therefore, bank size plays a moderating role; that is, it leads the relationship between financial statement comparability and bank risk-taking to a positive one.

Limitations

Findings are limited to the data collection period and may change with changes in circumstances and time.

- The findings cannot be easily generalized to any other organization because each organization has its own unique rules, culture, and climate.

- In the research period, political restrictions imposed on Iran, from the term sanctions and JCPOA negotiations, were the term uncontrollable cases that will likely affect the test results of the hypotheses.

Suggestions

- It is recommended to rank banks based on financial statement comparability and report their results to regular users. This way, banks will try harder to increase their financial information comparability. According to these findings, banks are proposed to optimize comparability, increase financial reporting transparency, and strengthen internal controls over financial reporting.

- Since ownership concentration affects financial statement comparability and bank risk-taking, banks are advised to carefully plan ownership structure, proper management, intelligent process control, and obtain feedback from its application to correct possible errors to reduce corporate risk-taking.

- Since bank size affects the relationship between financial statement comparability and bank risk-taking, investors are advised to invest as much as possible in large-sized banks with financial health, as well as banks and financial institutions with a higher book value/X value ratio.

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