ASSESSMENT OF CREDIT RISK MANAGEMENT PERFORMANCE IN ISLAMIC AND CONVENTIONAL BANKS IN SAUDI ARABIA FINANCIAL CONTEXT

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ABSTRACT

The bank system, including both conventional and Islamic banks, always seeks to keep financial risk to minimum. The purpose of the present study is to determine the effect of credit risk upon the performance of Saudi banking sector as it seeks to highlight the aspects of differences and similarities between the Islamic and conventional banks in their treatment of credit risk management. This research aims to evaluate the current position of credit risk management in both Islamic and conventional banks in Saudi Arabia. It recommends employing some determinants to identify this risk and the relationship between this risk and the variables. Furthermore, it aims to realize which type of bank performs better regarding credit risk. The sample of the study is made up of four conventional banks and four Islamic banks as the data have been collected from the annual reports of these banks. The data of the study covered a period lasted for ten years, specifically from the period extended from 2009 to 2018 as the data helped to find the correlations between credit risk and performance.. The indictors of the credit risk used in the current study include the ratio of Loan Provision to Total Loans (LP/TL), the ratio of Loan Provision to Non-Performing Loans (LP/NPL), the ratio of Loan Provision to Total Assets (LP/TA), and the ratio of Non-Performing Loans to Total Loans (NPL/TL). A regression model was used to find the relationship between the banks' performance and the indicators of credit risk. The study finds that conventional banks have the best practices for dealing with the ratio of total loans to total issues. Additionally, the study concludes that financial performance is influenced by risk management practices and the extent to which the banks develop the strategies to face different risks.

Keywords: Saudi Arabia, Credit Risk Management, Performance, Islamic Banks, Conventional Banks, Loan Provision, Non-Performing Loan

INTRODUCTION

Banks often encounter financial risks because of the nature of their daily work in business and their daily activities in the economy sector that requires risk-management mechanism addressing these crises efficiently (Aebi et al., 2011; Demirguc-Kunt et al., 2013). The risk management department in banking sector is mainly responsible for raising awareness of the expected financial risks which are expected to occur in banks (Hac et al., 2021; Ercegovac et al., 2020). Numerous banks were affected negatively by the global financial crisis that hit hard the banking sector worldwide and these effects were largely shown in the financial performances and operations of these banks. To illustrate, the banking sector suffered from monetary losses and they were also faced by financial recession (Maxfield & De Sousa, 2015; Lynch, 2010; Laeven, 2008; Cassis & Wojcik, 2018). Statistics reported that around 123 banks were forced into bankruptcy (Hidayat & Abduh, 2012).

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Credit risk is considered to be one of the major risks encountered by the banking sector that entails the necessity of adopting effective and efficient credit risk management, and appropriate credit risk management practices (Koulafetis, 2017; Anna et al., 2015; Adamko et al., 2014; Konovalova et al., 2016; Gupt & Sikarwar, 2020). The banking sector is mainly liable to maximize returns and to provide the biggest value to investors by managing credit risk (Ahmad & Ahmad, 2004).

The banking sector in Saudi Arabia is divided into two types of banking; Islamic banks, which includes Islamic banks, and the conventional banks, which include 9 banks. This sector is monitored and regulated through the Saudi Arabia Monetary Agency (SAMA).

According to the most recent edition of the report issued by, the Saudi economy has recently improved. The world economic recession and its direct impact on the Saudi oil market have represented sources of potential risks for Saudi economy.

However, there is a slow improvement in the Saudi economy that contributed to enhancing the flexibility of Saudi banking system and this was testified in 2018. The increase in private sector credit resulted in asset growth and at the same time, there was an increasing exposure to the national debt.

The 2030 vision entails many reforms concerning banking sectors. These new reforms contributed to create a transparent environment based high degree of disclosure whose ending result was to provide a competitive environment stimulating leadership and excellence in the provision of competitive services (SAMA, 2020).

The present study selects some financial determinants from Saudi banks' annual reports in order determine the credit risk in Islamic and conventional banks across Saudi Arabia and to examine whether the Islamic banks outperform the conventional banks in managing such types of risks.

LITERATURE REVIEW

Problems pertinent to bank's failure to address credit portfolios played a major role in the financial crisis occurring to the bank sectors. The non-performing loans arise when clients are not able to fulfill their obligations. Sobarsyah, et al., (2020) evaluated the impact of loan growth on credit risk in Islamic banking system as they conducted their study in relation to a sample of banks 29 countries. The empirical results of the study have shown that the increase in loan worsened credit risk one year ahead and this negative impact has been clearly proven after the 2008 global crisis. The study recommended supporting the process of making good decisions for banks with higher capitalization as a necessary step to decrease the impact of moral hazard and ensure prudent lending behavior.

Alqahtani (2017) compared between the efficiency of Islamic and conventional banks in the GCC region during and after the global crisis. The study reached a number of findings *i.e.*, Islamic bank were more cost efficient than the conventional banks, Islamic banks also managed to fill in the inherent gap regarding profit proficiency. Konovalova, et al., (2016) suggest a model for assessing credit risk in relation to a factor analysis. This model was used to guarantee predictive control of the risk level emanating from clients in commercial banks engaged in consumer lending. The study aimed to control credit risk resulting from different classes of borrowers in order to mitigate the consequences of credit risk and develop banks' risk management. They conclude with the "model of borrower's internal credit ratings" and provide methods of improving credit risk management in conventional banks.

Abedifar, et al., (2015) examined the empirical literature concerned with Islamic banking system as the study focused on profit-sharing and loss-bearing behavior, competition, risks. The results of the study have shown that Islamic bank performance funds are similar-if not better than conventional banks performance in funds.

Meanwhile, Kargi (2011) assess the effect of credit risk on the profitability of Nigerian banks. The study applied financial ratios to measure to what extent the Nigerian banks can be affected by credit risk. The data was gathered from accounts of sampled banks and annual reports from 2004–2008. The study applied correlation, descriptive, and regression methods in the analysis. The findings identified that credit risk management significantly affects the profitability of the sampled banks. Therefore, credit risk management must be cautious in setting up a credit policy, which can minimize negative effects on profitability, and understand how credit policy affects the operation of the banks to guarantee a judicious use of deposits.

For credit risk regarding a comparison between Islamic banks and conventional banks in terms of which type is more exposed to this type of risk, we found that Ferhi (2018) evaluated the relationship of credit risk in Islamic and conventional banks and the capital in 14 countries of The Middle East and North Africa (MENA) region. He used a sample of 89 conventional banks and 58 Islamic banks from 2005–2015. The results indicate that the conventional model has a higher credit risk than the Islamic one. Moreover, these results indicate that the larger an Islamic bank, the closer its credit risk will be to that of conventional banks. Similarly, Chamberlain, et al., (2020) conducted a study to investigate the differences in the credit profiles of Islamic and conventional banks in the Gulf Cooperation Council (GCC) region and attempted to identify the factors responsible for such differences. They found that Islamic banks have lower credit risk than conventional banks, whereas higher capitalization, better liquidity, and cost inefficiency contribute to the lower risk profile of Islamic banks.

Moreover, in terms of focusing on the influence of credit risk on the financial performance in Islamic Banks, Awosanya & Elena (2019) found that the positive relationship between credit risk and Islamic bank profitability in other countries is not the case with African countries such as Tunisia, Egypt, Kenya, and Sudan due to challenges relating to the compliance and regulations of Islamic banking products; higher risks in regulatory sector financing in Africa; and peculiar challenges faced by African Islamic lenders, such as the lack of collateral, absence of property titles, thin business plans, and inadequate financial documentation, which impact due diligence and efficient credit risk management in the African region.

METHODOLOGY

The study uses hypothesis testing methodology that focused on the relationship between variables.

There are three questions in this research:

- 1. What are the major determinants of credit risk that could affect the return on equity in Islamic and conventional banks?
- 2. Are Islamic banks less exposed to credit risk on average than conventional banks in Saudi Arabia?
- 3. Are Islamic banks more efficient on average than conventional banks in Saudi Arabia?

CONCEPTUAL FRAMEWORK FOR THE RESEARCH

The model is adopted from the study by Ahmed, et al., (2011) and is as follows: ROE= $\alpha 0+\alpha 1LPNPL+\alpha 2LPTS+\alpha 3LPTL+\alpha 4NPLL+\pi$, where

- $\alpha 0$ is the intercept.
- αi (i=1, 2, 3, 4) are the coefficients or measures of t, and π is the random variable included in the model to accommodate influences of other variables that might affect profitability but are not included in the model.
- ROE (return on equity), the dependent variable, is a measure of financial performance.
- LPNPL is the ratio of provision for loans to non-performing loans.
- TLTS is the ratio of total loans to total assets.
- LPTL is the ratio of provision for loans to total loans.
- NPLL is the ratio of non-performing loans to total loans.

Study Sample

The study sample covers eight banks in Saudi Arabia. These include four Islamic banks, namely Bank Al-Rajhi, Bank Al-Bilad, Bank Al-Jazira, and Bank Alinma and four conventional banks, namely Riyadh Bank, Saudi British Bank, Saudi American Bank, and Al Bank Al-Saudi Al-Fransi. All existing Islamic banks were selected; however, the conventional banks were selected based on size and data availability. Foreign banks operating in Saudi Arabia were omitted from the study, as they possess a unique style of operation and management. The study period extends for 10 years, from 2009 to 2018, to include some Islamic banks that have been recently established in Saudi Arabia, such as Bank Al-Bilad and Bank Alinma. The financial data for the sample banks were gathered from the annual reports of these banks provided on their websites.

RESEARCH HYPOTHESES

Six hypotheses were developed to answer the questions:

- H1 The ratio of Loan Provision to Non-Performing Loans (LP/NPL) significantly impacts the return on equity in both types of banks.
- H2 The ratio of Loan Provision to Total Loans (LPTL) significantly impacts the return on equity in both types of banks.
- H3 The ratio of Total Loans to Total Assets (TLTS) significantly impacts the return on equity in both types of banks.
- H4 The ratio of Non-Performing Loans to Total Loans (NPLL) significantly impacts the return on equity in both types of banks.
- H5 Islamic bank performance is lower than that of conventional banks in Saudi Arabia.
- H6 Islamic banks have less exposure to credit risk do than conventional banks in Saudi Arabia.

RESULTS AND DISCUSSION

The regression procedure is employed to achieve the statistical values of the intercept and the effects of the credit risk management variables along with the random variable in the model. The valuation of the values is performed using SPSS statistical software. Panel Least Squares (PLS) is used to estimate the data.

Table 1 presents the variability ratio of the independent variables. The "R square" reveals the relationship between the dependent and independent variables, while "R" represents the square cause of R. The value of R explains how independent variables are linked to ROE. Furthermore, the adjusted R square refers to the statistical contraction of credit risk variables. In other words, the adjusted R square describes the compatibility of the selected independent variables with the dependent variables to validate the determinations based on the regression model.

The table 1 indicates that the total divergence in the performance measured by ROE, due to the change in the independent variables, is equal to 69% and the determination coefficient is equal to 47.5% in Saudi's conventional banks, while the total divergence in the performance measured by ROE, due to the change in the independent variables, is equal to 68% and the determination coefficient is equal to 46% in Saudi's Islamic banks.

Table 1 DECDESSION ANAL VOIS FOD ISLANDS AND CONVENTIONAL DANKS IN SAUDI ADADIA									
Variable	IS FOR ISLAMIC AND CONVENTIONAL BANKS IN SAUDI ARABIA ROE								
Banks Type	Islamic Banks				Conventional Banks				
	COE	Std. error	T- value	P- value	COE	Std. error	T- value	P- value	
(Constant)	- 23.389	8.66	-2.701	0.011	8.251	4.222	1.954	0.059	
LPNPL	0.031	0.015	2.074	0.045	0.034	0.014	2.333	0.026	
NPLL	-1.361	0.996	-1.366	0.181	1.376	0.956	1.44	0.159	
LPTL	2.037	1.149	1.772	0.085	0.075	0.893	0.084	0.933	
TLTS	0.437	0.129	3.399	0.002	- 0.033	0.058	-0.568	0.574	
	Model 1			Model 2					
R-squared	0.461			0.475					
Adjusted R-square	0.447				0.415				
S.E. of regression	4.6812258				1.9043801				
F-(statistics)	5.826				32.465				
Prob. F-(statistics)	0.021				0				
Dependent Variable: ROE									

The regression analysis in Table 1 presents the statistical significance of predictors and their unpredictability over ROE for both types of banks. This significance is illustrated in Table 1 according to the 'F' and P-values. In model 1 and model 2, the p-values (0.000) and (0.021), respectively, of the F-test are less than 0.05; hence, the regressions of both models for conventional and Islamic banks are statistically significant. In addition, Table 1 reveals that the Islamic banks of Saudi's Loan Provision to Non-Performing Loans (LP/NPL) and Total Loans to Total Assets (TLTS) have a statistically significant and positive impact on return on equity, while the conventional banks of Saudi's Loan Provision to Non-Performing Loans (LP/NPL) has a statistically significant and positive impact on ROE.

Table 2 HYPOTHESES TEST RESULTS								
Hypotheses	Statements		Banks	Coe	P-value significant	Decision status		
111	The ratio of loan provision to non-	Islamic		0.031	0.045	Accepted		
H1	performing loans (LP/NPL) has a significant impact on return on equity.	Conventional		0.034	0.026	Accepted		
H2	The ratio of loan provision to total loans (LPTL) has a significant impact on	Islamic		- 1.361	0.181	Rejected		
	return on equity.	Conventional		1.376	0.159	Rejected		
-	The ratio of total loans to total assets	Islamic		2.037	0.085	Rejected		
	(TLTS) has a significant impact on return on equity.	Conventional		0.075	0.933	Rejected		
H4 t	The ratio of non-performing loans to	Islamic		0.437	0.002	Accepted		
	total loans (NPLL) significantly impacts the return on equity in both types of banks.	Conventional		_ 0.033	0.574	Rejected		

In Table 2, research hypothesis one (H1), which states that the ratio of Loans Provision to Non-Performing Loans (LP/NPL) has a significant impact on the return on equity for both types of banks, will be accepted, and hypothesis four (H4), which states that the ratio of Total Loans to Total Assets (TLTS) has a significant impact on return on equity will be accepted for Islamic banks but rejected for conventional banks. All research's hypotheses will be rejected because there is no significate relationship between the rest independent variables and Return on Equity (ROE).

The results identify that the positive relationship between credit risk indicators and Return On Equity (ROE) can be explained by increases in the amount of credit supplied by banks and credit risk management through the monitoring and screening of borrowers could supporting this result. Furthermore, this positive relationship can be explained by increases in secured assets leading to generating income. In other words, the increase in secured assets helps to reduce the amounts of money those banks set aside for provisions to cover expected credit losses. Thus, the increase in secured assets will lead to higher profitability of banks. The findings support that credit risk management is an important indicator of the banks' financial performance. This reveals that credit risk management is strong in both the Islamic and conventional banking sectors in Saudi Arabia.

Table 3 INDEPENDENT SAMPLES T-TEST								
Variables	Bank	Ν	Mean	Std. deviation	T-value	P-value		
ROE -	Islamic	40	11.63	6.29	-1.507	0.138		
	Conventional	40	13.25	2.49	-1.307	0.138		
LPNPL	Islamic	40	141.28	73.99	0.672	0.504		
	Conventional	40	132.21	42.56	0.072			
NPLL -	Islamic	40	2.06	1.92	1.013	0.315		
	Conventional	40	1.71	0.96	1.015	0.515		
LPTL -	Islamic	40	2.64	1.71	1 (54	0.103		
	Conventional	40	2.12	1.01	1.654			
TLTS -	Islamic	40	64.21	6.14	2.889	0.005		
	Conventional	40	60.23	6.18	2.009	0.005		

Table 3 presents the independent samples t-test for the mean differences of the variables for both Islamic and conventional banks. The Return On Equity (ROE) in Islamic banks (M=11.63, SD=6.29) does not significantly exhibit any difference with respect to conventional banks (M=13.25, SD=2.49), t=-1.507, p<0.138. As we have selected ROE to be an indicator of the banks' performance, the research hypothesis (H5) that states "Islamic banks' performance is lower than that of conventional banks in Saudi Arabia" will be rejected. As with ROE, the determinant of credit risk LPNPL, NPLL, and LPTL has no significant difference in the mean for both types of banks. It is found that the ratio of the Total Loans to Total Assets (TLTS) has a significant difference in the mean, so Islamic banks have higher exposure to credit risk (M=64.21, SD=6.14) than do conventional banks (M=60.18, SD=6.18), t=2.89, p<.005.

The levels of credit risks faced by Islamic banks are found to be significantly higher than those faced by conventional banks, as revealed in the results of the total loans to total assets in this study. Therefore, we rejected hypothesis (H6) that stated "Islamic banks have less exposure to credit risk do than conventional banks in Saudi Arabia". This result might be explained by the statement of Van Greuning & Iqbal (2008) when they demonstrated that credit risk management for Islamic banks is complicated because they are compliant with Shariah regulations, which impede them from charging accrued interest or penalties in the event of delay or non-payment of the loan. As a result, the client takes advantage of this by delaying payments to Islamic banks. The capital of Islamic banks is struck due to the unproductive use of their capital, causing pressure on banks due to non-payment of the return to depositors, which will raise the rate of return risk for the bank.

Furthermore, Islamic finance tools could increase credit risk in Islamic banking. Examples include Murabahah contract and move to equity contracts, such as Musharakah & Mudarabh. The nature of Murabahah & Ijarah transactions of Islamic banks exposes them to similar credit risk as do commercial credits of conventional banks; however, Mudarabah & Musharakah partnerships have unique credit risks. In Mudarabah partnerships, the operations depend on the managing partner; therefore, the creditability of the managing partner becomes a major issue. Islamic banks are exposed to credit risk in Mudarabah via the managing partner's fraud, misconduct, negligence, and incompetence. The credit risk of the resulting business exists, as well. If the business cannot generate profits and begins realizing losses, the Islamic bank likewise will realize losses. This type of credit risk applies to Musharakah partnerships, as well. Moreover, Ijarah & Salam transactions expose Islamic banks to credit risk (Al-Wesabi & Ahmad, 2013).

RESEARCH LIMITATION

The main limitation of the study comes from the sample data, which were collected from the context of a single country, namely Saudi Arabia. This made it easier to collect the relevant data and control for heterogeneity when including other international banking systems. However, this essentially limits the generalizability of our findings. In addition, we selected only one type of risk, credit risk, in this study, which could be a limitation because there are other types of possible risks associated with Islamic and conventional banking, such as liquidity risk, market risk, and so on. Therefore, the research is limited in regards to the generalization of these results with respect to marketing, administration, and other risks, especially Shari'ah compliance risks, as they relate uniquely to Islamic banks.

CONCLUSION

This research aims to identify the fundamental issues of credit risk that could affect the performance of both types of banks and to distinguish which types of banks have the best management practices. According to the results, both Islamic and conventional banks have clear strategies to achieve efficient management performance. The study finds that conventional banks have the best practices for dealing with the ratio of total loans to total issues. Additionally, the study concludes that financial performance is influenced by risk management practices and the extent to which the banks develop the strategies to face different risks. Therefore, the powerful risk management committee can insert a crucial role in monitoring risk threatened by banks. The risk committee is required to review risk policies.

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