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The Impact of Portfolio Diversification on Risk Management Practices

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Abstract:

Commercial banks that manage a substantial share of the financial industry's total assets depend mostly on credit. Banks may increase their revenues via this function, one of the main tasks of commercial banks. It should be recalled that banks will differ in various ways in terms of their aims, services, and strategies. In reality, in their day-to-day operations, banks confront several risks. Bank Performance is highly affected by "Credit Risk" since it is the possibility that the total value of assets may change in value because the counterparty has failed to meet its commitments under the contracted liability. A bank's primary purpose is to accept deposits and provide credit facilities which thus become necessarily subject to credit risk. So, Credit risks constitute the most significant risk that banks are subjected to, and their success depends to a degree greater than other risks from accurate measurement and successful risk management. The study carried out a quantitative technique during the survey distribution to a certain number of participants, and the findings were seen concerning the regression. Pearson Correlations analyzes, and the findings indicated that market risk, liquidity risk, loan risk and solvency risks are directly linked. However,

throughout 2017 and 2018, the balance sheet was employed to concentrate on the net income effect of ratios. The findings have shown that the greater the risk management ratios, the higher the net income.

Keywords: Net Income, Loan Risk, Market Risk and Liquidity Risk, Contracted Liability, Banks Regulation

Introduction

Scholars, professionals and regulators regard efficient risk management as a pillar of bank management. The Basel Committee on Banks Regulation has introduced the Basel I Agreements, accompanied by the Basel II Agreements and recently the Basel III Agreement, to deal with this issue in the awareness of this circumstance and the need for the holistic approach to managing bank risk. Risk reduction is one of the determinants of banks ' returns (Sensarma and Jayadev, 2009). Lehman Brothers Securities, Inc. filed Chapter 11 bankruptcies on 15 September 2008 to the US due to the ongoing global economic and financial crises. The spread of the worldwide turmoil posed concerns about the efficacy of institutions, including those adopted by existing institutions, in Risk Management Strategies (RMSs). Inability to handle risk is deemed a significant trigger of the recession (2009; KPMG Worldwide, 2009; Sabato, 2009; the Netherlands, 2010). Failure to control danger in reaction to the boom and bust of the dot.com industry, the Sarbanes Oxley Act of 2002 placed an obligation on all the stock trading firms to invest substantial funds to retain their control structures (Williams et al., 2006).

Inconsistencies of returns associated with a particular asset may be described as risk (Gitman, 2008). The risk is often characterized as a combination of the possibility and effect of the occurrence and incidence of an incident (ISO-IEC, 2002). Risk assessment is the mechanism to define, evaluate, track and report possible threats that may have a detrimental effect on the company's returns. The strategic management of a company is based on the Risk Management Activities (ISO-IEC, 2002). Strategic management uses it to positively contribute to the objectives, objectives and portfolio of nearly all its activities. RMS preserves and creates revenue for the quarter involved, so a company must incorporate large RMP as a non-stop method to accomplish its objectives. Banks ought to integrate the business, credit and operating risk as an integral component of the risk management (ERM) framework into a joint capital assessment initiative and offer a detailed analysis of their complete capital capabilities. This lets banks define their risk profile, the level of risk they face, and the degree of diversification by joining growing market areas (Tschemernjak, 2004). ERM strictly controls the extent of risks and the ability to achieve firm objectives and goals (Steinberg et al., 2004).

The revised legislative framework Basel III was established as a reperuse for the 2007-2009 financial crisis to introduce a range of actions to improve the banking system's stability. In normal and stressed circumstances, the framework for new capital appropriation emphasizes liquidity, credit, and market risk enormously (BCBS, 2009a). Banks have been forced to retain a minimum amount of capital to cover risks and act as a go-ahead. In contrast, banks must sustain risks well above their necessary capital thresholds in the recent financial crisis (BCBS, 2009b). The Basel Committee has extended a lengthy period defining two new capital needs, the IRC and VaR, which expanded loss-related capital flexibility (BCBS, 2009b, 2010). Background: The Basel Committee has updated the Basel Regulation. Although credit risk was responsible for significant price increases during the recent financial crisis, the primary

source of price volatility was business risk factors such as shifts in commodity rates. Compared to default risk variables, the probability premia has a major effect on bond returns. The Basel Committee placed an additional capital inclusion in IRC to enable banks ' resources to swamp dramatically adverse demand adjustments in a crisis. At the same time, the VaR model is mainly used to measure price risk in pressing market conditions (Elton et al., 2001).

Regardless of the central importance of financial security, several methods and methodologies are absent from the financial performance evaluation. While sustainable institutions have also been desired, most financial systems in this sector have long found them unsustainable. Work has shown that this is directly linked to understanding the danger and creditworthiness of micro-borrower lenders and the limited credit system (Quach, 2005). Dayson et al. (2006) say that micro-finance for financing agencies was appealing because of the demonstrated viability and low operational costs. Liquidity measures the willingness of a corporation to satisfy its commitments without contradicting the standard continuous service. Structural and functional balance assessments should be performed. Structural liquidity ensures the financial report, and operational liquidity represents the financial statements (assets and liabilities). Quach suggested on the other side that solvency calculates the sum of lent capital utilized by the company compared to the amount paid into the business through the equity resources of the shareholder. In other terms, the solvency steps indicate the corporation's willingness to cover the liability after all properties have been sold. Solvency mechanisms often reflect the company's desire to accept chances by reminding investors of the company's capacity to continue to work despite significant financial hardship.

Profitability tests to the degree an organization derive profit from output factors: jobs, management and money. The study of profitability focuses on the connection between sales and expenses and income relative to the investment size of the business. The level of return on investment, equity (ROE) cost, gross profit margin and net business profits are four important indicators of firm profitability. ROA calculates the return on all company assets and often acts as an overall productivity metric, and the higher the rating, the rentable the product. The ROE calculates the return rate on the resources of the owner working in the firm. To assess if the organization spends its loan capital on income, it is worth evaluating ROE to compare to ROA (Zenios et al., 1999). Rasid et al. (2011) also showed in his style theoretical claim that risk control in an organization impacts the competitiveness of the company by improving risk reduction activities, through Soin (2005), Williamson (2004) and Collier et al. (2004). Rasid et al. (2011) also disclosed further that financial statement risk mitigation is expected to be the main contributor to risk management. The budgeting and strategic preparation of the bank's competitiveness are crucial plays in risk management.

Nonetheless, macroeconomic knowledge has no effect on the likelihood of financial distress on a commercial entity (Zaki et al., 2011) and a specific degree of danger (Zaki et al., 2011); Williamson (2004) has suggested that the expense ratio from year to year and equity to net assets, total asset development and debt buffer ratio to gross loans have a significant influence on the probability of financial distress in the coming year. In 2012, Mwangi reported that risk management strategies and

incorporation in corporate targets were perceived to be the key risk management activities with a significant impact on the financial results of specific Risk management methods rather than others. This helps banks enhance their efficiency by emphasizing effective risk management strategies and incorporating risk management into the framework of realistic corporate objectives, whereas sure drivers of success not included in the analysis are included.

Financial Risk and Financial Performance

Credit risk, liquidity risk and market risk are constituents of financial risk, affecting financial performance volatility (Tafri et al. 2009; Dimitropoulos et al. 2010). Bank Performance is highly affected by "Credit Risk" since it is the possibility that the total value of assets may change in value because the counterparty has failed to meet its commitments under the contracted liability (Pyle, 1999). The volatility of "interest rate risk" is the possibility of a fluctuation in the cost of loans or deposits (Dimitropoulos et al., 2010). If the interest rate of the commercial bank loan is less than the cost of the deposit, or if it is higher than the market rate or if the interest rate on a deposit is higher than the market rate, it may present a risk to banks interest rate. At this stage, the bank draws the GAP Analysis and the Maturity Buckets. On the other hand, the "Currency Risk" is linked to the Domestic currency depreciation, price variations and output drops (Berument and Dincer, 2004). Suppose a bank does not exist; a hedge either sells and buys a foreign currency at a fair price or if the foreign currency steadily depreciates. In that case, the bank is subject to grave exposure that might lead to defaulting. Besides analyzing the bank's risk exposures, the fact remains that "Profitability" is a major concern for the banks and the shareholders. Therefore, information relating to the bank's ability to broaden its operations is one of the board of directors' targets. Therefore, certain ratios do provide an upfront indication of the banks' profitability, such as;

- ROE (net income / equity),
- ROA (net income / total assets) and
- Debt Ratio (equity / total assets)

They are some of the key measures to improve bank productivity (Dardac and Barbu, 2005). Furthermore, comparisons of crucial profitability metrics, such as returns on investment and equity returns to the standards set by Duca and McLaughlin (1990), are the main reasons for profitability assessment. In the latter term, investments are included, and overall shareholder funds are also named. Regardless of the term accepted, a bank's capital is widely used for assessing its financial strength (Bobakova, 2003). Moreover, the "Solvency" of financial institutions is increasingly at risk as their assets become deteriorated, which ensures that over-exposure to specific risk patterns in non-performing loans, as well as the safety and viability of bank lenders, is essential to monitor their assets quality metrics.

In addition to the above, Financial Risk and Financial Performance, linked to the loan portfolio, which might default by the creditor, can then face cash flow problems, ultimately affecting the bank's liquidity position. In support of the above, (Tummala and Burchett, 1999) argue that "risk management" is essential for companies' financial performance. Parrenas (2005), on the other hand, Parrenas also notes

that "risk management" plays an integral part in creating value to shareholders and customers for financial institutions. In support of the above facts relating to the Financial Risk and Financial Performance, Tafri et al. (2009) analyzed the duration between 1996 and 2005 and the relationship between the financial risk and the competitiveness in Malaysia of traditional and Islamic banks. The analysis examined Generalized Least Squares with panel data regression of fixed effects and random impact models and found that the loan vulnerability significantly affects traditional and Islamic banks ' profitability. Although financial risk reflected the impact on financial performance, the analysis regarded financial successes as the return on assets and equity as crucial measurements to adopt; moreover, researchers can perform simultaneous measurements by using the instrument of regression vectors to set the outcome in two-stage lower squares. Results showed that both ROA and ROE are critical in using data from 21 banks between 2003 and 2012. The results also showed that regulatory and financial relationships cannot be halted and that commercial banks and banking managers balance risk and financial performance. Another aspect of Financial Risk and Financial Performance was demonstrated by Al-Tamimi et al. (2015), who studied the relationship between;

- Islamic banking financial risk and
- the performance of the Gulf Cooperation Council (GCC)

Between 2000 and 2012, 11 of the 47 Islamic banks of the Gulf Cooperation Council were prosecuted. Information from the Bank region has been obtained indicating that the ROA and ROE have been used as the main measure for determining the bank performance. On the other hand, the following risks were also considered but taken as the gaudiness:

- risk of credit,
- risk of liquidity and
- operating risk.

In the Gulf Cooperation Council (GCC), regression analysis revealed a significant negative relationship in Islamic banks ' efficiency, equity and operating risk. The findings have reaffirmed the significant negative relationship between the success of the Gulf Cooperation Council and Islamic banks. A capital risk and, subsequently, operational risk was the most significant type of risk.

Credit Risk and Financial Performance

A bank's primary purpose is to accept deposits and provide credit facilities which thus become necessarily subject to credit risk. So, Credit risks constitute the most significant risk that banks are subjected to, and their success depends to a degree greater than other risks from accurate measurement and successful risk management (Gieseche, 2004). Moreover, Tomak (2012) conducted a study on the bank's loan activity of commercial banks in Turkey with a sample of eighteen out of 25. Some inverse relationships between performance, efficiency and credit risk indicators were identified as well. Identifying the determinants of bank lending activity has been the primary purpose of the research. The data covered periods from 2003 to 2012. The variables used included;

- long term exposure to capital,

- interest rates,
- GDP growth and
- inflation

It significantly positively affected banks ' investor behaviour, exposure to long-term credit, and inflation, but interest rates and GDP remained negligible. The impact on overall assets of lending-to-performing loans and advances on outstanding assets was evaluated from 2010 by the Kithinji team on the effect of credit risk calculated from the loan and advance ratio between 2004 and 2008 on the total assets of Kenyan banks. The study found that commercial banks ' bulk earnings are not impacted by the volume of credit and non-performing loans. Kithinji called for an average increase in the earnings of the banking sector between 2004 and 2008. The earnings of trade banks fluctuated over the century but rose slightly on average between 2004 and 2008. The income during the study period was generally low, and the credit to consumers was relatively high, but the trend over the span was downward.

The effect on the competitiveness of banks in Ghana was examined by Afriyie (2011). The research evaluated ten rural banks ' financial statements from 2006 to 2010 (five years). For the estimate, the panel regression model was used. The models Return on Equity (ROE) and Return on Asset (ROA) were used as productivity measures. In contrast, the Ratio of Nonperforming Loans (NPL) and capital adequacy ratio (CAR) was used as credit risk management indicators. The results showed a significant positive correlation between non-performing loans and the competitiveness of rural banks, suggesting that there are more significant losses of loans but that there is still benefit for banks. Afriyie (2011) noted that the credit risk control of individual rural banks is related to the competitiveness of Ghana. Higher capital adequacy rural banks can better advance loans and absorb loans as they expand while increasing productivity. Afriyie and Ogboi (2011) findings agree with the relationship between credit risk control and performance. However, the financial performance of banks can be influenced by other factors such as;

- low income,
- exposure to structured services and
- the lack of information and understanding.

Credit risk and its impact on the competitiveness of Nigerian banks were also analyzed by Kargi (2011). Financial ratios as bank efficiency and credit risk indicators were gathered and evaluated using descriptive, correlation and regression methods from 2004-2008 annual reports and accounts of the addressed banks. The results showed that credit risk management has an essential impact on Nigerian banks ' profitability, and it concluded that the competitiveness of banks is affected by credit risk management practices. Credit risk systematic impact on the profitability of commercial banks in Nigeria over eleven years (2000–2010) were carried out by Kolapo et al. (2012) using a Panel Model methodology. The results demonstrated that credit risk has a cross-sectional effect on the bank's profitability calculated by bank returns on assets. Therefore, besides the ROE & ROA, the main Ratios used to determine the Credit Risk could then be outlined as follows:

- Non Performance Loans towards Total assets (NPL / LA) ratio

- Net Advances & Loans towards Total Deposits (LA / TD)
- Loan loss allowance towards classified loans (LLP / CL) is yet another important indicator of Credit Risk that is usually utilized

Naples, Poudel (2012) discussed various parameters related to "Credit Risk Management". In his analysis, criteria included;

- default rates,
- loan expense and
- capital adequacy

In the 11 years from 2001 to 2011, the 31 banks ' financial reports analyzed the secondary data by analyzing the return on default, loan cost assets and equity ratio as stated. The results in the study showed that each of these parameters had an inverse effect on bank financial performance. It was evaluated using correlation and regression models. The research found substantial adverse relationships between the default rate and the capital adequacy ratio between return on assets and an independent variable. The results showed an adverse relationship since the capital adequacy coefficient was -0.125, which means it affects the profitability ratios adversely by 12.5%

Operational Risk and Financial Performance

Inconsistent results and benefit shocks will occur to stakeholders if the operational danger is not consistently supervised. This may affect bank profits and net worth with business risk exposure. Operating costs thus create operating losses and expenses to the bank. Therefore, the cost of the operational risk capital costs and the consequent calculation must be sufficient to cover certain expenses. Tripe (1998) illustrated how a risk capital payment (economic capital allocation) for activities might, with multiple of the average variance ratio, be related to variability in the costs to income ratio. Tripe also illustrated how uncertainty could be used for economic capital costs in other metrics, such as cost-to-assets. As Tripe stated, there are significantly different maintenance costs with various cost-based amounts. The cost-to-asset ratio does not include non-interest earnings but maybe bear a significant indicator of the bank's financial risk.

Data Collection Method

Time series measurement is carried out on measures where secondary information was gathered from experiments where a single-subject design methodology was introduced to data collection methods. This method is the only feasible approach used by the control group to discuss the research subject. The data for this study includes all Lebanese banks and time series known for this research. The Lebanese Central Bank has agreed with numerous commonalities of massive oil exports and set the exchange rate. Similarities in economic structure lead to benefits and disadvantages of the same source in the financial sector. The financial sector has similar characteristics as other sectors, which render it resilient to the financial crisis. Some Banks are dominated by domestic banks, which seek, via ownership networks, to reduce direct cross-border spillover. Most Lebanese regional banking systems have commercial banks, while other banks have traditional, mostly domestic, regulated banks that comprise between 50% and

80% of total banking assets. Bahrain is a thriving banking industry, led by three major banks, namely Bank of The community is examined in its entirety, whilst the survey reflects the whole population (Douc, Guillin, Marin, & Robert, 2007). It is focused on commercial banks.

Techniques and/or Procedures for Data Analysis

Three metrics are used as a profitability metric with a contingent variable consisting of return on assets, equity, net income margin and current ratio. Then, the ratios mentioned earlier data were exported for statistical analysis to SPSS version 26, where variables were coded as dependent and independent variable measurements in each predictor's variable view. In order to verify the theory, there were two separate experiments, including a one tangle Pearson association and multiple regression study. The tailed Pearson 1 correlation aimed to calculate the lines of the level at which the coupled variables are strongly or weakly, and a linear relationship between the coupled variables with the dependent variable is positive or negative. If the correlation coefficient value is +1, then the correlation is called positive.

If the coefficient of interaction is -1, on the other hand, the combination and dependent variable have a negative linear relationship. Furthermore, the association between a pairing variable is regarded as good when the value of coefficient p is similar to that of 1. On the opposite, the association between the pairing variable is assumed to be weak if the value of coefficient p is closer to the value of 0. The researcher uses the second test to analyze various regressions. The test is an important method for testing the theory proposed by science. This test aims to assess whether the defined pairing variable is statistically meaningful or not. Suppose F significance values are less than 0.05 or 5%. In that case, the likelihood of commercial banks reported in the GCC area may be an important statistic linear connection between the variable and the pairing variable. This test is a key test leading to a linear equation to forecast bank profitability using liquidity indicators.

Regression Analysis

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.628[a]	.394	.374	.02285

a. Predictors: (Constant), Liquidity Risk, Risk Control, Credit Risk

Table 2: Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.017	.010		1.744	.085

	Credit Risk	.239	.098	.249	2.449	.016
	Market Risk	.228	.087	..158	2.620	.015
	Liquidity Risk	.273	.094	.172	2.904	.047

b. Dependent Variable: Financial Performance

The regression analysis above the tables 1 and 2 show that the contingent and independent variables have a direct association, founded on a 5 percent significant error. The findings revealed a significant level below 5% that indicates an association between the independent risk management variables (0.010), credit risk (0.016), liquidity risk of the industry (0.015) and the (0.047). Thus, it is possible to say the following:

Credit danger + equity risk + 0.015 market risk + .047 liquidity risk Financial performance
Financial output is impaired by 1 percent with each unit rise in risk management
Financial output is impaired by 1.6% with each credit risk rise
Financial output is impaired by 1.5% for any unit that increases competition risk
Financial output is impaired by 4.7 percent with each rise in liquidity risk.

Validity and Reliability Analysis

Table 3: Validity and Reliability Analysis

Component Matrix[a]

	Component
	1
Financial Performance	.804
Risk Control	.791
Credit Risk	.812
Market Risk	.811
Liquidity Risk	.703

The table 3 below shows the validity and durability of the data obtained using the Cronbach Alpha predictor. The collected data is inaccurate and reliable if the indicator shows a signal less than 0.5, so if it shows a symbol over 0.7, it indicates that the collections are valid and reliable. Both variables are stable and ready for statistical review about the graph.

Brief Discussion of the Findings

The researcher performed an extensive study of the operational Risk Management Practices chosen by different main commercial banks. The key aim of the research report was to recognize the strategic RMPs of major commercial banks and their challenges. The study also found that in the main

commercial banks, there is a significant amount of operational RMPs. The researcher proposed that banks spend more on computerized software for risk control, boosting financial performance and profiling. It will be more fitting to designate senior executives as situational danger leaders. The research adopted a concise research design to investigate the link between the risk management routines and Lebanese operational efficiency. The data was obtained through semi-structured questionnaires from employees of different organizations employed in the risk divisions. Furthermore, the findings proved a direct relationship between risk management and the financial performance of the banks; the higher the risk management practices are implemented in the workplace, the higher the financial performance will be. Meaning that the banks which don't employ risk management practice their financial performance will be affected in a negative way using ROA, ROE and ROI as indicators for measuring financial performance.

Conclusion

This chapter addressed the research findings since it studied the relationship between dependent and independent variables, and this was done using the regression analysis and validity test. Using the Likert scale, the responses were distributed among (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree). The results showed a strong correlation between ROE, ROA & credit risk on financial performance. The higher the risk management practices are implemented, the higher the ROA, ROE, and ROI will be in the bank, indicating a positive financial performance. This study aims to determine the effect of risk management on the financial performance of commercial banks in the world. This study showed a correlation between credit risk, market risk, liquidity risk and financial performance. In addition, the result of this study showed conformity with the results of previous research mentioned in the literature, such as the ones of Adekunle (2015), which stated that risks might be caused due to natural disasters, accidents, credit risk, and vagueness in economic conditions, malfunctioning of the project, official liabilities, along with deliberate adversary attacks. Poley (2016) the framework of risk management includes detection, prioritization and estimation of risks. This is followed by the regulated and cost-effective use of resources to minimize, monitor and control the possibility and influence of unexpected incidents or maximize the attainment of chances. Risks may be caused due to natural disasters, accidents, credit risk, vagueness in economic conditions, malfunctioning of the project, official liabilities, and deliberate adversary attacks. Abigail (2019) proposed that the appraisal of the research has summarized several studies done in Ethiopia. The rest of the world is related to credit risk management and the profitability of banks. Such empirical studies have been reviewed that either determined the presence of considerable influence of credit risk on banks' profitability or identified a positive influence of the management of credit risk on the profitability of banks.

Limitations of Research

While current work has provided useful results to make important insights to accessible banking literature by effectively testing the theory, addressing research questions and thus achieving the aims and objectives of the report, no work is deemed complete without defining the boundaries. Similarly, the current thesis was often faced with several obstacles and disadvantages listed below during its implementation. The application of system approaches in this survey was limited to developing a

dynamic system model and documenting and understanding the connections between variables in Some Banks' risk management systems. This study restricts the questionnaire examination only to analyze the relationship between risk management practices and the various aspects, including risk comprehension, market risk, risk evaluation and interpretation, risk monitoring and control and credit risk management. However, this study is subject to restrictions relevant to risk-bearing performance and the outcomes of the identified banks, and the examination uses a non-parametric methodology in estimating the bank efficiencies, as opposed to other evaluation results approaches already used in current studies.

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