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The Underlying Effect of Risk Management On Banks' Financial Performance: An Analytical Study On Commercial and Investment Banking in Bahrain.

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Abstract- The main purpose of the current research is to analysis selected financial risks and financial performance of commercial and investment banks listed on Bahrain stock exchange for the period 2015-2019. However, selected financial risks contain capital risk, liquidity and exchange rate risk, meanwhile the financial performance measured by return on equity. To achieve the research purpose the panel regression analysis of data approach was employed. While, for the data were collected from annual financial reports for the banks. An interesting findings were have been found for both models as concluded to there is insignificant relationships between capital risks, liquidity risks and exchange rate risk and financial performance for both models except the liquidity risk for investment banks found to be significant relationship with financial performance. Due to several limitations of the current research different suggestions might be driven for further researches such as conducting researches on another financial risks, another financial institutions and other financial performance measurements that not be covered in current research.

Key words: Financial Risks, Financial Performance, Commercial& investment banks, Bahrain.

I. INTRODUCTION

As a consequence of the emerging instability in the economy, risk management is rising every day. Some of the major challenges faced by lots of companies (ALI, & WAN 2016) are the financial risks, especially those on the stock market when the valuation of these companies depends on the market conditions (Ali and Oudat, 2020). Today, this drives both administrators to check for resources that can mitigate the risk effect. Diversified understanding of the risk will help investors understood future prospects, cost of trade balance by different methods of investment (Samimi et al., 2020). Risk assessment is a mechanism in which investment decisions are determined, evaluated, consented or reduced uncertainty. Risk management arrives as an investor tries to identify the risk for investment losses, followed by reasonable efforts to investigate these possible risks on the financial results of a specific financial entity (i.e. bank) likely monetarily. This risk is calculated in relation to risk management (Mohammadnazar and Samimi 2019).The financial performance of the bank is one of the attributes that are used by investors to recognize equity investments to help them discover the bank's strengths and use the related financial performance knowledge to make a sound decision (Almagtome and Abbas, 2020).
In this relation, it is worth mentioning that the bank's financial results are expressed especially in its balance sheet sales declaration, which indicates how well the bank performs through specific metrics (i.e. bank size, capital ratios, liquidity etc.). However, the success of the banks over the years is measured by return on asset and return on equity (Paul and Musiega, 2020). Risk can yield pleasant or unfavorable outcomes depending on the degree of risk taken has a direct effect on the potential return (Wani and Ahmad, 2015). Multiple risks exist in all businesses that include liquidity risk, credit risk, business risk, etc (Kassi, et al., 2019). The interesting topic then is how well or not a bank is doing with the risks that management takes (Onsongo et al., 2020).

Following the financial crisis, the creditors were strongly taken into account by the financial performance of their firms, thereby urging banking companies to understand the need for successful performance-enhancing measures while failing to define goals. Although there were exemplary banks which collapsed or were bailed

out by governments during the crisis period (Erkens et al. 2012), not all of the banks worldwide were equally badly performing; (Tailab, 2020).
In this sense, while Equity Return (ROE) has been expansively used as metrics of financial efficiency, it is notable that the problem faced with ROE is that the calculation shortfall, which requires very high financial leverage, is likely to generate a higher ratio. However, the risk of collapse would be higher for banks with high financial levers (Quarshie and Djimatey, 2020).
Thus, banking with a rising financial condition is more likely to lose its market share, especially during times of industry deflation (Wu et al., 2020). In conjunction with the increasing global economic strain on firms, scholars have been led to explore proper ways of maintaining banks' long term growth (Rupert and Smith, 2016), because these banks fail to produce a lasting financial success (Forbes, 2016). Thus, in recent years, a substantial number of (empirical) inquiries have been conducted in the issue of financial risk on financial performances (Sathyamoorthi et al., 2019).

However, a literature boom which explored the correlation between these two words created different theoretical scientific findings with incorrect interpretations, which made it difficult to draw a proved conclusion. The financial risk of financial success was different. Thus, financial risks, which are a key factor in the effect of a company's results, need additional studies (Ali and Oudat, 2020; Onsongo et al., 2020).

This statement was illustrated by a multitude of studies that showed that while the accepted positive role of risk management in enhancing bank financial performance, research in this area has conferred contradictory results; as several studies have shown a positive relationship in entirely different geographical contexts (Maritim, 2013; Mwangi, 2014); (Adeusi et al., 2014; Olamide et al., 2015). The greater control of assets, the smaller the needless expenditures, contributed to this optimistic relationship (Mutukua, 2016). Other research, on the contrary, reported a negative relationship (Shetty and Yadav, 2019); (Muteti, 2014; Juma and Atheru, 2018). The lower leverage risk was justified by this negative relationship, as risk activities are put further under control, which reduces bank profitability (Sathyamoorthi et al., 2019). With the tougher laws, as most banking industries shrank, differences in market capability structure have arisen, business models have been subject to changes with a transition from trading to lower capital activities (Bank of International Settlements, Year 2018). The end result was that banking profitability across the globe plummeted as a result of a reduced chance of debt taking account of (Ali, & Wan 2016;Sathyamoorthi et al., 2019).

Present study therefore seeks the review of financial risk evaluation of financial results in Bahrain stock exchange and commercial banks for the period 2015 to 2019. In addition, the capital risk, exchange-rate risk and liquidity risk reflect financial risks in particular. In the meantime, the return on equity reflects financial results. Nevertheless, the importance of the new analysis is supposed to add to the banking literature; first, according to academics, "Risks therefore remain an important factor in the performance of a company to be studied" (Ali and Oudat, 2020; Onsongo et al., 2020). Secondly, it is expected that this study will improve awareness of the previously published inconclusive mixed findings. Finding the impact of financial risks (capital risk, exchange rates risk, liquidity risk) on the financial performance of these banks (ROE) which, in turn, may flourish the banking industry in Bahrain could also help to boost current research on the performance levels of these banks.

II. LITERATURE REVIEW

Due to to globalization, modern companies face tremendous severe risk in contrast with previous recognition, due to the evolving growth of technology. For financial institutions, the management of these threats was not of primary importance. Consequently, financial risks are a major challenge faced by many businesses, especially on the stock exchange, since they are dependent on market conditions (Ali and Oudat, 2020). This is attributed to the unexpected fluctuation in financial risks. In this regard, it is important to remember that a variety of risk forms impact the financial performance of the company adversely (Kioko, et al., 2019; Muriithi, 2016). There are a variety of types of risk in the concept of financial risk. Financial risk emerges as a result of falls in the stock market due to asset volatility. It is also generally correlated with debt, with the probability that balancing obligations cannot be met (Al-Tamimi and Al-Mazrooei, 2007; Oudat, & Ali,2020; Ali and Oudat, 2020).

In recent years, this financial risk issue has attracted the attention of scientists to research its effect on financial results (Sathyamoorthi et al., 2020). This is how financial success blends a company's willingness to execute strategies to make vital decisions and meet its objectives (Ali and Oudat, 2020). In particular, the financial results defines the strengths and limitations of the company by creating ties between the financial position components in the profit loss statement (Noor, 2019). This is why banks make an enormous contribution to the economic growth of the world. Its financial success is also important because it also increases the population's living standards (Ali and Oudat, 2020). In fact, this has driven bank decision-makers to track all sorts of risks; liquidity risk, credit risk, market risk, other types of non-financial risk (Kassi et al., 2019). The following risks: capital risk, exchange rate &risk liquidity risk will be discussed in this present study.

2.1 Capital Risk and Bank Performance

Capital risk is described as the bank's capacity to cover volatile assets (Mousa, et al., 2018). It is measured as the difference between asset market prices and equity liabilities. Capital plays the most imperative role against any possible danger, particularly when protections are insufficient, then central banks have turned to raise capital banks to ensure that all stakeholders, especially depositors, have the margin of protection (Saunders and Cornett, 2002). In short, 'capital vulnerability is equity that is inversely commensurate with risks' (Thomas, 2015).

In the financial results of the listed Bahrain Boursen business banks, Ali and Oudat (2020) analyzed the effect of risk on the funding (capital risks, exchange rate risk, other risk liquidity operational risks). In the five years between 2014 and 2018, 11 out of 18 banks were investigated in Bahrain. The findings showed that the efficiency of the bank's capital risk is substantially related. SimilarlySukmadewi (2020) has examined the effect on efficiency funding of 23 banking companies listed on the Indonesian stock exchange between 2016 and 2018 of the capital adequacy ratio as well as other ratios. The findings showed that the equity ratio had a positive effect in terms of returns on assets on banks' profitability. In addition, in 33 banks in Pakistan between 2008 and 2018 Ahmad et al, (2019) checked the effect of risks on their results. The findings showed that capital adequacy has a positive effect on banks' profitability. In addition, the effect of capital adequacy on finance performance in ten banks listed in Nigeria from 2010-2017 was analyzed by UkinamemenOzekhome (2019). The findings have shown a major positive impact on Nigerian banks' financial efficiency. In addition, in 54 Kenyan insurance firms in the period 2014-2018, Metamora (2019) has investigated the impact of adequacy capital on financial results. The findings revealed that the financial success of insurance firms in Kenya has statistically important consequences. The point is that capital risk is generally calculated by capital adequacy, which has reverse implications as a metric of banking success on returns of capital. However, it is recommended to test the following hypothesis:

H_1:*Capital risk has significantrelationshipwith financial performance for commercial and investment banks listed on Bahrain stock exchange.*

2.2. Exchange Rate Risk and Bank Performance

The currency value of a single country is largely equal to the value of another country's currency (Moyo and Tursoy, 2020). In this regard, it is worth remembering that all commercial investment banks benefit from the foreign exchange market as one of the main financial markets environments. According to Chiira (2009), various currencies are involved in international trading. Treasury variances are a stimulating influence in tracking the banks' degree of performance, since they impact their financial intermediation activities. As without other countries no country can exist independently, they are both engaged in transactions; hence, the exchange rate is unavoidable (Moyo and Tursoy, 2020). The exchange rate fluctuations have had a variety of implications in other economic aspects such as interest rate, inflation rate, unemployment rate etc., OladipupoaandOnotaniyohuwo (2011). These arguments underline the importance of the currency for the well being of the economy of any country, particularly those that trade in goods and services internationally. In alignment with Inam and Umobong (2015), it emphasized that monetary stability is necessary for stable macroeconomic conditions in any region. This ensures that a country's exchange rate regulation accepts the right exchange rate to ensure equilibrium (Egolum et al., 2020).

Ali Oudat (2020) analyzed the effect on finance performance in the listed commercial banks in the Bahrain Exchange of financial danger (capital risk, exchange-rate risk, even liquidity operational risk risk). In the five years between 2014 and 2018, 11 out of 18 banks were investigated in Bahrain. The findings showed negligible ties between bank success in the exchange rate risk. In the same background the inflation of the efficiency finance exchange rate in the bigger four commercial banking firms in South Africa from 2003-2019 has been analyzed by Moyo and Tursoysx (2020). The findings showed that the exchange rate risk bank output was insignificantly associated. Elhussein and Osman (2019) have analyzed the influence of exchange-rate volatility on Sudanese banks' financial results at 37 Sudanese banks between 2002 and 2017. The results showed a marginal correlation between the success of the exchange rate risk banks. Furthermore, Otieno (2017) analyzed the effect on financial results of 43 business banks in Kenya from 2007 to 2016 of foreign currency prices. The results show that exchange-rate success in the banking industry in Kenya has a major positive effect. Moreover, in 10 listed banks on the Nairobi Securities Exchange from 2006 to 2013, Lagat and Nyema (2016) looked at the partnership impact on financial results of the exchange liberalizations. The findings showed that the financial success metrics were strongly optimistic for foreign exchange rate. The theory is that exchange rate fluctuation may improve banks' profitability, thereby boosting bank efficiency. The present analysis therefore proposes to test the following hypothesis:

H_2:*Exchange rate risk has insignificant relationship with financial performance for commercial and investment banks listed on Bahrain stock exchange.*

2.3. Liquidity Risk and Bank Performance

Liquidity risk defines the credit prices for these bank customers to meet the demands of the depositors to withdraw their money (Cahyaningrum and Atahau, 2020). In other words, if a corporation does not have adequate resources to fulfill its contractual promises or expectations in a particular period, they risk being faced with the (Noor, 2019). Highest liquidity ratios thus are assumed to be stable for enterprises, although corporations are more likely to default at high debt-low liquidity levels (Greuning and Bratanovic, 2009). This is because the low liquidity risk means that banks struggle to provide credit for income (Pinasti and Mustikawati, 2018). Therefore, if the bank does not have adequate liquidity, its everyday activities would not be covered. (Noor, 2019). Behavior.

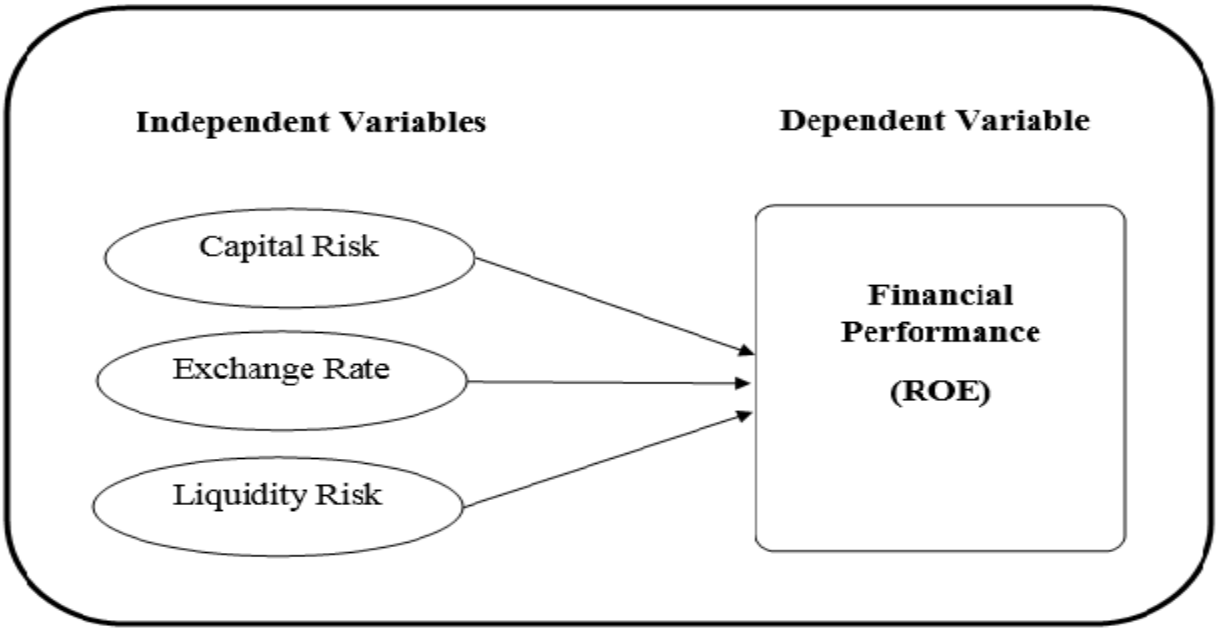
Ali and Oudat (2020) analyzed the effect on financial performance of commercial banks listed on the Bahrain Exchange on the financial risk (capital risk, exchange rate risk, liquidity risk). The coverage of analysis in Bahrain from 2014 to 2018 for 11 of the 18 banks. Data obtained from the Bahrain Exchange stock database was based on the availability of data. The findings showed that liquidity liquidity risk was negligible. Similarly, Ismail et al. (2018) have been interested in the financial risk of the financial results of the Islamic banks in Malaysia (credit risk, liquidity risk, operative risk capital risk). For the time between 2008 and 2014, data were collected from 15 Islamic banks. The findings showed that the liquidity risk bank performance is not linked. Meanwhile, in six Islamic banks between 2012 and 2016 in Bangladesh, Chowdhury and Zaman (2018) analyzed liquidity risking for bank success. The findings revealed a negative association between measures of bank liquidity efficiency. The impact of risk Liquidity, credit risks, foreign exchange risk interest rates risk on the return of 42 commercial banken assets to Kenya in 2010–2015 were, by comparison, analyzed by Juma, et al., (2018). The findings showed that liquidity risk has a considerable positive impact on banks' profitability. In addition, the relationship between bank financial risk success in India was explored by Haque and Wani (2015). Five public banks 5 private banks from 2008 to 2013. Evidence from 10 financial institutions. The result has shown that the liquidity risk financial efficiency has nothing to do with it. It is worth noting that liquidity can influence bank output in a country, while liquidity has little effect, or may even have a negative impact, in another country. The point is that the spatial background disparity will lead to the effects of these banks' disparities. The following hypothesis was then suggested in the current research:

H_3:*Liquidity risk has insignificant relationship with financial performance for commercial and investment banks listed on Bahrain stock exchange.*

2.4. Research Framework

Figure 1 explains the relationships between financial risks (independent variables) financial performance (dependent variables):

Figure 1. Research Framework



III. RESEARCH METHODOLOGY

3.1 Research Sampleand Data Collection

The key aim of current research is to evaluate the financial risk performance of Bahrain-listed commercial investment banks. However, there is a research population of all Bahrain-based banks, with a survey of all commercial banks comprising seven Bahrain-listed banks covering the period. The study population consisted (2015-2019). The category of data is secondary data, extracted by each bank and Bahrain Burse website from its yearly report.

Consequently, the Panel data regression was used to assess the existing study hypotheses. However, the regression in the panel data may be tested by different models (fixed-effects, pooled fewer squares and random effects) (Gujarati, 2003). The OLS is the suitable model for the present analysis, among other aspects, depending on the findings of both models. In addition, the diagnostic tests included multicolinearity, heteroscedasticity, autocorrelationship and normality have been performed to ensure that the results are accurate to be tested.

3.2. Variable Measurements

The current study defined the variable measurements described by the following table, based on numerous previous studies carried out in fields such as; (Egbunike and Okerekeoti, 2018; Noor, 2019; Wieczorek-Kosmala,2019; Ali and Oudat, 2020; Asiedu, etc., 2020):

Table 1. Variables Measurements

Type of the variable	Variable	Operationalization	Measurement
Independent Variables	-Capital Risk -(CR)	The absence of the capital needed as the last financial fund and storage facility.	bank's capital / risk-weighted assets
	-Exchange Rate Risk -(ERR)	The pace at which a certain country's currency may be traded with another country's currency.	Original Currency / New Currency
	-Liquidity Risk	The potential for a bank not to satisfy short-	Total loans/Total

	-(LR)	term financial demands as needed.	Deposits*100
Dependent Variable	Return On Equity -(ROE)	ROE illustrates how bank management successfully deploys shareholder capital.	Net income/ shareholders' equity of the bank

3.3. Research Model

In order to test the current study hypothesis, the following model will be used to analyze the multiple regression analysis approach appropriate for the data:

$$ROE_{it} = \alpha 0 + \beta 1CR_{it} + \beta 2LR_{it} + \beta 3LCR_{it} + \beta 4ERR_{it} + \mathcal{E}_{it}$$

In which intercepts of α0, β1, β2, and β3: indicated the approximate i-bank factor at the time t; ROE: indicating the equity return, β1CR: the credit danger; β2LR: the liquidity risk; and β3ERR: the risk of exchange; and εit: the error word. However, the related mathematical procedures are used to assess and evaluate the interaction between the variable dependent and dependent. They are analytical, correlation and multiple regression statistics.

IV. Empirical Analysis

4.1.Descriptive Analysis

Table 2 shows the descriptive statistics of the variables. It contains with range, mean, minimum, maximum, standard deviation. The results show that the mean value of ROE is 5.51 with minimum of -23.84 and maximum of 18.13 as well as the standard deviation of 9.59 for first model, meanwhile, for the second model the results reveal that .034 is the mean and -.075 minimum value, .127 is the maximum while the standard deviation reached .037. Moreover, the table results display that the mean value of capital risk is 0.178 with minimum of 0.05 and maximum of 1.92 as well as the standard deviation of 0.30 for the first model. On the other hand, for the second model the mean was .305 with minimum .067, maximum .890 and standard deviation .286. Thus, it can be justified that these banks have realized that plays capital an imperative role against all probable risk, particularly in case of inadequate provisions, therefore, these banks have turned to raise banks' capital to assure a margin of safety for all stakeholders and particularly depositors.Therefore, the findings reveal that the mean value of liquidity risk is 0.62 with minimum of 00.00 and maximum of 7.00 as well as the standard deviation of 1.33 for the first model. Meanwhile, the mean for the second model reached .479, with minimum .000, maximum .800 and .259 for standard deviation, which shows that these banks have credit allocations to the balance of credit of those bank customers to satisfy depositors' requests to withdraw their money. This means that these banks are able to secure its daily operations and they are effective in assigning credits and in engendering profits. Meanwhile, the results also show that for the first model the mean value of exchange rate risk is 6.36 and.389 for second model, with minimum of 5.20,-.939, while for maximum value 7.13, .890as well as the standard deviation of 0.43, and .389 first and second models respectively. Thus, it is obvious that the exchange rate risk has got the highest compared to the other risks in the first model, which means that these banks consider that fluctuations in the exchange rates is a stimulating factor that monitors the profitability levels of banks because it affects their monetary intermediation practices.

Table 2. Descriptive Statistics of Variables for First Model (Commercial Banks)

Variables	Number of Observations	Minimum	Maximum	Mean	Std. Deviation
ROE	35	-23.84	18.13	5.519	9.591
CR	35	0.05	1.92	0.178	0.305
LR	35	.000	7.00	0.628	1.330
RRE	35	5.20	7.13	6.365	0.432

Descriptive Statistics of Variables for Second Model (Investment Banks)

Variables	Number of Observations	Minimum	Maximum	Mean	Std. Deviation
ROE	30	-.075	.127	.034	.037
CR	30	.067	.890	.305	.286
LR	30	.000	.800	.479	.259

RRE	30	-.939	.890	.360	.389

Source: Author's calculation

4.2.Correlations Analysis

In order to investigate the interaction between variables and to show whether variables would create issues with predictions, a Pearson correlation test was conducted. Table 3 displays Pearson correlation coefficients among the research variables. The table reveals that the Hair analysis suggests that the correlation coefficients are below 0.07 (Hair et al., 2017).

Table 3. Pearson Correlation Matrix for First Model (Commercial Banks)

	ROE	CR	LR	ERR
ROE	1			
CR	.055	1		
LR	.238	.846**	1	
ERR	.223	-.479**	-.059	1

Pearson Correlation Matrix for SecondModel (Investment Banks)

	ROE	CR	LR	ERR
ROE	1			
CR	-.182	1		
LR	.562**	-.191	1	
ERR	-.376*	.218	-.293	1

4.3. Regression Results

Table 4 demonstrates the findings of the financial risks on bank performance for both models. For capital risk indicates that increasing by 1 % of the variable will decrease 13.98% on ROE for commercial banks and -.005 for investment banks. It also shows insignificant impact between credit risk and ROE (P > 0.407) for first model and (P >0.805). It means that bank with high capital risk tend to be subject to inadequate provisions as they will be unable to cover risky assets. In another meaning, banks with higher ratio of capital adequacy will be more willing to cover potential losses as capital adequacy has inverse effect on return on equity. This result is supported with previous studies (Ali andOudat, 2020; Sukmadewi, 2020; Ahmad *et al.,* 2019; UkinamemenandOzekhome, 2019; Mutumira, 2019) whose results revealed positive relationship between bank performance and capital adequacy.The first hypothesis is shown not to have any substantial association between capital risk and financial efficiency.

In terms of liquidity risk, it shows the increment by 1% of it will increase 44.47% on ROE for commercial banks and 0.071 for investment banks. It also shows insignificant impact for liquidity risk on ROE (P > 0.195) for commercial banks. This ensures that the banks have ample capital to fulfill their liabilities or financial commitments in a given period. This is supported by Their studies have shown an insignificant association between liquidity risk and bank efficiency (Ali &Oudat 2020; Haque &Wani 2015). The results for investment banks nevertheless indicate that the liquidity risk/financial success relationship is important (P>0.006). The second hypothesis is partly agreed since the correlation between the liquidity risk and financial results of business banks is negligible while the investment banks' relationship is important.

In comparison, the exchange rate indicator suggests a 1% rise in the ROE of the first model by 1.030% and in the second, it falls by 0.022, but the exchange price effect in both models has an insignificant influence (P>0.871) and (P>0.189) on the ROE. It shows that the exchange rate law of the banks in Bahrain defines the right exchange rate and guarantees its stability.

These findings (Ali and Oudat, 2020; Moyo and Tursoysx, 2020; Elhussein and Osman, 2019) have been supported, with results which have revealed a negligible relationship between exchange and bank risk. The third hypothesis is thus agreed as all models have nothing to do with the exchange rate risk and financial results.

Table 4. Coefficients for the First Model (Commercial Banks)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	(Constant)	-1.344	40.803		-.033	.974
	CR	-13.980	16.644	-.445	-.840	.407
	LR	4.447	3.358	.617	1.324	.195
	ERR	1.030	6.274	.046	.164	.871

Coefficients for Second Model (Investment Banks)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	(Constant)	.010	.017		.601	.553
	CR	-.005	.021	-.040	-.250	.805
	LR	.071	.024	.488	2.962	.006
	ERR	-.022	.016	-.224	-1.349	.189

a. Dependent Variable: ROE

V. CONCLUSION

Panel Regression analysis using panel data was applied in the current research in order to assess financial risks and results of commercial and investment banks listed on Bahrain stock exchange for the period 2015-2019. In this article, the data were obtained from banks and Burse locations. For both models, there were extremely significant relationships between capital and exchange rate risk and returns, and negligible relationships between liquidity risk and returns, for commercial banks, and moderate relationships between liquidity risk and returns, for investments banks. The new research primarily concerns only with bank results but the focus is limited to commercial and investment banks only. It is proposed that future studies should look at another financial risks, another financial institutions and other success indicators that are not covered in current research.

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