The Impact of Unsystematic Risks on Stock Market Return in Jordanian Commercial Banks

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This study aimed to explore the impact of unsystematic risks (credit risk, liquidity risk and operational risks) on the stock market return in Jordanian commercial banks during the period 2009 to 2019. The study sample consisted of all Jordanian commercial banks, after excluding the three Islamic banks from the study sample, due to the different nature of their activities, and thus the final sample size becomes thirteen banks. The researcher relied on secondary data obtained from the Amman Stock Exchange website to calculate the stock market return, and the financial statements of Jordanian commercial banks to measure the level of unsystematic risk. The stock market return was calculated through the combined monthly return for a period of twelve months starting from May of the fiscal year and ending in April of the following fiscal year. Thereby, the period between May of the one year and April of the following year represents the window of study. The study found an impact of unsystematic risks (credit risk, liquidity risk and operational risk) on the stock market return in Jordanian commercial banks. The study recommends the need for commercial banks to pay attention to unsystematic risks because of their impact on the stock market return, and thus maximising the wealth of owners, as the value of market shares reflects investors' perceptions of the performance of companies and the efficiency of their management.

Key words: Unsystematic Risks, Stock Market Return, Credit Risk, Liquidity Risk, Operational Risk
Introduction

Stock market dealers invest in company shares with the aim of obtaining adequate returns resulting from changes in share prices and dividend distributions. Changes in stock prices in the capital market occur as a result of changes in investors’ expectations, which result from the information the market receives from different sources of data (Didar et al., 2018). The market predicts potential fluctuations in a company's profits and interacts with it based on this information, as this information changes the expectations of investors and affects their investment decisions, which affects the prices of stocks and thus their market returns (Zraqat, 2019). Investments in stocks carry a high degree of risk, because they are highly sensitive to changes, either within the company or in the external environment in which it operates. This requires investors to be careful when deciding to invest in stocks to prevent potential losses. One effort to prevent losses is to forecast the future returns on equity investors will seek (Hapsoro et al., 2020). The return on stocks can be predicted by analysing the risks of different companies. One of the most important things often used to analyse a company's performance is an analysis of unsystematic risk.

The prosperity and development in banking services has been reflected in the banking sector through the increase in banking risks that financial institutions may be exposed to (Saleh & Abu Afifa, 2020). Intense competition between banks and banking financial institutions has resulted in an increase in unsystematic risks (Abdullah et al., 2015). For example, the intensity of competition in the banking business and the tendency to provide distinctive services contributed to adopting the risk-taking method to maximise the return on invested capital and increase its value in the market (Bravo, 2017). Such methods may impede the achievement of banking institutions' objectives and continuity, due to the diversity of their various banking services in terms of the controls set for them. Therefore, it was necessary for the institutions to contain the potential and potential risks that banks may be exposed to and to identify their nature and size, as the possibility of these risks may occur. Banking institutions is exposed to financial hardship, which may be reflected in its performance and market returns. Therefore, the banks’ familiarity with the consequences is of great benefit in managing these risks and determining the optimal size of the risks that they can bear.

Study Problem

Many financial theories have ignored the role of unsystematic risk in the asset pricing model (Vo et al., 2020). Fama and MacBeth (1973) also support the hypothesis that there is no relationship between the risks associated with the company or the sector and the market return in effective markets. In a different way, Merton (1987) argues that investors are concerned with monitoring the total risks (both systemic and unsystematic risks). Therefore, these scenarios are the reason for fluctuations in stock price. Fluctuations will track the level of risk of the company, and thus the unsystematic risk will affect the market return. Morck et al. (2000) argue that the company’s risk is an important factor in measuring the effective market level.
Considering the motivation of investors to make investment decisions is to increase their returns by maximising the profits received through ownership of shares during a specific period of time, the returns they obtain cannot be separated from the risk factors associated with the companies whose shares they acquire. This is because investors always expect an appropriate level of return on each type of risk they face, as investors' attitude to risk depends on the risk preferences they expect. Investors who tend to adopt a high level of risk tend to invest in shares of high-risk companies as they are accompanied by a high level of returns as well, and on the contrary, investors who avoid risks do not tend to invest in shares of companies that adopt a high-level of risks (Iwayan & Anom, 2020). Consequently, it is theoretically expected that there is a relationship between stock returns and corporate risk (unsystematic risk) and market stock returns. This is because many studies have concluded that risks affect financial performance, by using many performance indicators such as return on assets, return on equity, earnings per share, economic value-added and, market value-added (Zraqat, 2020). Given that financial performance is one of the determinants of stock market return, it is expected that there will be an impact of unsystematic risks on market returns. Hence, this study explores the impact of unsystematic risks (credit risk, liquidity risk and operational risk) on the stock market return in Jordanian commercial banks.

Framework and hypothesis development

Stock Market Return

Return is defined as the future return that the investor seeks to obtain in exchange for the investment of money, as the investor always seeks to maximise wealth, and the return can also be defined as the future benefits that the investor gets in exchange for not keeping the money at the present time (Hapsoro et al., 2020). Stock market return is defined as the ratio that measures income to invested capital (Nafooti et al., 2013). Hence, the return is one of the most important variables in investment decisions because it measures the amount of investor wealth that increases or decreases. Investors in ordinary shares aim to achieve two types of returns, namely the current return, which expresses the amount of annual cash dividends, and the capital returns, which express the profit achieved from the difference between the sale price and the purchase price of shares. Therefore, the stock return is the return achieved by the investor from the acquisition of the stock. It is calculated by dividing the change in the share price during a specific period in addition to dividend cash dividends by the market value of the share at the beginning of the period. The stock market return expresses fluctuations in market share prices in the short term that result from stock trading activities, which are measured without taking cash dividends into account (Jizi et al., 2016).

Unsystematic Risks

The risks that result from factors related to a specific company or a specific sector are considered unsystematic risks, and these risks are not related to the environmental conditions
in which the company operates – usually, companies protect themselves from these risks through management procedures and diversify their investments so that these investments are not affected by the various risks at the same time, known as diversification of investments (Waemustafa & Sukri, 2016). Fredrick et al. (2014) defined unsystematic risks as those uncertainties that arise as a result of special circumstances related to a specific company or sector, and these factors are independent of the risks associated with economic activity, and can be called exceptional risks, non-market risks, or risks that the company can avoid with diversification. Gabriel (2016) defined it as the residual risk that pertains to a particular banking institution or industry in itself, or as part of the overall risks that are unique to a specific security and not to other securities, changes such as labour strikes, errors committed by management, marketing campaigns to competitors, and changes in consumer tastes, lawsuits cause variation in the returns of the banking institution, and this discrepancy is not related to the regular factors, markets, and other financial instruments. Gupta (2011) also defined it as the internal risks related to the bank or the company itself, and include poor management procedures and investment policies that can be avoided through controls, procedures and administrative policies that regulate work, as well as the selection of managers with scientific and practical qualifications, increasing the quality of internal control systems and adherence to the principles of corporate governance.

The views on the types of non-systemic risk vary. Gadzo et al. (2019) classify unsystematic risks into three groups: the first represents credit risk, the second represents a market risk, which includes interest rate and exchange rate risk, while the third includes operational risk, which includes both liquidity risk and legal and strategic risks. Hess (2011) also classified the unsystematic risks faced by banks into credit, liquidity, interest rate, market, operational, technological factor, foreign exchange rate and bankruptcy risks. Chen and Wei (2010) also noted that the unsystematic risks facing banks include credit, operational and market risks that commercial banks may be exposed to. In this study, the researcher will rely on the classification established by Chen and Wei (2010), which divides the unsystematic risk into credit risk, operational risk and market risk.

Saragih (2018) points out that improved financial performance is an indication of a company's ability to achieve high profits. This will increase the demand for stocks, and thus will have an impact on stock prices, which is associated with the effect on stock returns as well. This is in line with the findings of Kamar (2017) and Nurfadila (2020), who found that improved financial performance has a positive effect on stock returns. Hence, we assume that the effect of unsystematic risks on financial performance will be associated with the effect on stock returns.

**Credit Risk and Stock Returns**

Gadzo et al. (2019) indicate that credit risk is the risk related to the other party in the contract, that is, its inability to fulfill its obligations as stipulated in the contract. Cui et al. (2021) define
it as the risks that arise from the possibility of borrowers or bank customers not paying their obligations, whether the debtor pays the full amount later than the specified time, does not pay the full amount, or does not pay at all. Ruziqa (2013) has shown that credit risk management has a significant negative impact on return on assets and return on equity. Li and Zou (2014) found that credit risk has a clear effect on return on assets and return on equity. Noman et al. (2015) indicated that there is a negative impact of strong statistical significance for the ratio of non-performing loans to total loans and the ratio of loan loss reserve to total loans on all profitability indicators. Kolapo et al. (2012) found a positive relationship between credit risk management and return on assets in the Nigerian banking sector. Munangi and Bongani (2020) documented a correlation between credit risk and financial performance, as the high non-performing loan ratio is associated with lower bank profitability in South Africa. This will affect expected future earnings, which will affect stock prices and market returns. Accordingly, the hypothesis for this study of the effect of credit risk on the stock returns of commercial banks in Jordan is:

\[ H_01: \text{There is no statistically significant effect of credit risk on market returns in Jordanian commercial banks.} \]

**Liquidity Risk and Stock Returns**

Liquidity risk arises from a bank’s inability to meet its obligations to others or to finance the increase of assets, which leads to a negative impact on the bank’s profitability, especially when there is an inability to immediately liquidate assets at an acceptable cost (Ruziqa, 2013). Several reasons may stand behind the exposure to liquidity risks, such as poor liquidity planning in the bank, which leads to a mismatch between assets and liabilities in terms of maturities (Ejoh et al., 2014). Likewise, it could arise from a misallocation of assets into uses that are difficult to convert into liquid stocks (Al-Khoury and Arouiri, 2019). Some external factors such as economic recession and severe financial market crises also contribute to exposure to liquidity risks (Diamond & Rajan, 2001). Bourke (1989) and Kosmidou (2008) indicated that higher liquidity is associated with higher bank performance. Rahman et al. (2015) indicate that there is a positive relationship between liquidity risk and the performance of banks in Bangladesh. Abbas et al. (2019) indicated that there is a positive impact of liquidity on the profitability of banks. Islam and Nishiyama (2016) also found an effect of liquidity on profitability in the banking sector. DeYoung and Jang (2016) indicated that low liquidity leads to lower profitability. Accordingly, the hypothesis for this study of the effect of liquidity risk on the stock returns of commercial banks in Jordan is:

\[ H_02: \text{There is no statistically significant effect of liquidity risk on market returns in Jordanian commercial banks.} \]
Operational Risk and Stock Returns

The relationship between operational risk and equity returns has not been extensively explored in the banking literature. The results on this topic are not clearly perceptible. For example, Cummins et al. (2006) indicate that there is an impact of operational risk on stock returns. The study emphasised the response of the market value of companies’ shares to operational losses, which leads to a decrease in the value of stocks with an increase in operational risks. Obeng and Waweru (2017) conclude that operational risk adversely affects financial performance, thus affecting stock returns. Ebenezer et al. (2018) concluded that operational risks affect the performance of banks in Nigeria. Hassan et al. (2016) found a negative relationship between the performance of Islamic banks and operational risks in the Gulf countries. Gadzo et al. (2019) indicated that operational risks affect the financial performance of banks. Cummins et al. (2006) indicated that banks can, through managing operational risks, increase the level of expected cash flows in the future, and thus increase stock returns. Isshaq and Bokpin (2009) argue that poor management of operational risk has a negative effect on a company's performance, leading to increased operating losses and lower levels of future profits. As a result, operating risks can have an impact on stock prices and returns. Hakimi and Boukaira (2020) found that the interaction between operational risk and loan activities has a positive effect on the level of performance of banks in Tunisia, thus affecting stock returns. Accordingly, the hypothesis for this study of the effect of operational risk on the stock returns of commercial banks in Jordan is:

H03: There is no statistically significant effect of operational risk on market returns in Jordanian commercial banks.

Study Methodology

Study Population and Sample

The study population consisted of all the Jordanian banks listed in the Amman Stock Exchange, which numbered (16) banks, during the period 2009 to 2019. The study sample represented all Jordanian commercial banks, as the (3) Islamic banks are excluded from the study sample, due to the different nature of its activities, thus the final sample size becomes (13) banks.

Data Collection Sources

The researcher relied on secondary data, by referring to books and studies related to the subject of this study. For the purposes of analysis, the websites of the banks included in the study sample and the Amman Financial Market website (www.ase.jo) were used in order to obtain the financial statements for Jordanian commercial banks, and for collecting the necessary data on the study sample, in addition to the banks' websites, in order to obtain their financial reports for the necessary information to conduct this study.
Variables Measuring

Stock Market Return (SR): The methodology of Warad and Al-Debi'e (2017) was followed in calculating the annual stock market return, as the market stock return of the bank’s (i) during the period (t) is calculated through the combined monthly return for a period of twelve months starting from May of the year fiscal (t) and ends in April of the fiscal year (t + 1). Therefore, the period between May of the year (t) and the month of April of the year (t + 1) represent the window of study. In the Jordanian environment, the Securities Commission Law stipulates that the Board of Directors shall prepare and provide the Commission with the annual report of the bank within a period not exceeding three months from the end of its fiscal year. To calculate the stock market return, the monthly return will first be calculated and then compiled for the study window as follows:

\[
r_{im} = \frac{P_{im} - P_{im-1}}{P_{im-1}}
\]

Where:

- \( r_{im} \): Monthly return of bank i share for month m.
- \( P_{im} \): Closing price of bank i share at the end of month m.
- \( P_{im-1} \): Closing price of bank i stock at the end of month m-1.

To calculate the annual stock market return, the following equation was used:

\[
R_{it} = \prod_{m=1}^{12} (1 + r_{im}) - 1
\]

Independent Variables

The unsystematic banking risk was represented by the following variables:

Liquidity Risk (LIQ): Liquidity risk is measured by the ratio of total cash and short-term investments to total deposits.

Operational Risk (OPER): Operational risk measured in accordance with instructions issued by the Basel Committee and the Central Bank of Jordan

Operational risk = Total income for the last 3 years x 15%.

Credit Risk (CREDIT): Credit risk is measured as the ratio of non-performing (bad) loans to gross loans.
Results

This part of research represents the results of statistical analysis, including descriptive measures, model fit tests and hypothesis testing results. The statistical processing depends on financial data of Jordanian commercial banks for the period 2009-2019.

1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Stdev</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Return (SR)</td>
<td>-1.823</td>
<td>-9.413</td>
<td>28.632</td>
<td>-28.571</td>
</tr>
<tr>
<td>Liquidity Risk (LIQ)</td>
<td>0.303</td>
<td>0.083</td>
<td>0.495</td>
<td>0.119</td>
</tr>
<tr>
<td>Operational Risk (OPER)</td>
<td>17.532</td>
<td>1.168</td>
<td>19.859</td>
<td>15.568</td>
</tr>
<tr>
<td>Credit Risk (CREDIT)</td>
<td>6.994</td>
<td>1.168</td>
<td>19.859</td>
<td>15.568</td>
</tr>
<tr>
<td>Return on Assets (ROA)</td>
<td>1.223</td>
<td>0.527</td>
<td>2.600</td>
<td>-0.600</td>
</tr>
<tr>
<td>Size of Bank (SIZE)</td>
<td>21.208</td>
<td>0.781</td>
<td>22.914</td>
<td>19.437</td>
</tr>
<tr>
<td>Debt Ratio (LEV)</td>
<td>85.663</td>
<td>2.574</td>
<td>90.925</td>
<td>78.036</td>
</tr>
</tbody>
</table>

Table 1. shows banks’ stock return (SR) average equal to (-1.823%), and ranged widely from (-28.571%) to (28.632%), considered an indicator of variation on demand on banks’ shares. Liquidity ratio (LIQ) average (0.303) refers to noticeable amount of liquid assets in banks. Operational risk levels (OPER) seem closed among banks. In contrast to credit risk levels (CREDIT) that seem with highly variation. Control variables (ROA, SIZE AND LEV), were with averages (1.233%, 21.208, 85.663), respectively.

Estimate the model

The research adopts the econometric analysis using panel data that combines time-series and cross-sectional data. To investigate the effect in study models, the study depended on the models related to panel data:

1- Pooled Regression Model (PRM)
2- Fixed Effect Model (FEM)
3- Random Effect Model (REM)

Lagrange Multiplier was applied to select the effective model from (PRM) and (REM), while the Hausman test was applied to decide the appropriate model from (FEM) and (REM).
Table 2. Lagrange Multiplier test and Hausman tests results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Lagrange Multiplier</th>
<th>Hausman</th>
<th>Appropriate Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chi^2</td>
<td>Sig.</td>
<td>Chi^2</td>
</tr>
<tr>
<td>H01</td>
<td>0.341</td>
<td>0.559</td>
<td>-</td>
</tr>
<tr>
<td>H02</td>
<td>0.205</td>
<td>0.651</td>
<td>-</td>
</tr>
<tr>
<td>H03</td>
<td>0.373</td>
<td>0.541</td>
<td>-</td>
</tr>
</tbody>
</table>

Lagrange Multiplier test, to select an appropriate model (PRM) and (REM)
H0: PRM is more consistent than REM

Hausman test, to select an appropriate model (FEM) and (REM)
H0: REM is more consistent than FEM

The Lagrange multiplier test proved that a pooled regression model was the appropriate model to estimate model, for all three research models: because (Chi^2) was not significant (sig > 0.05), there was no need to process the Hausman test.

Multicollinearity Test

To test the existence of multicollinearity phenomena between model variables, Pearson correlation coefficients were calculated between independent (predictors) variables, the results of testing multicollinearity between independents variables are explained by correlation matrices and VIF test as following:

Table 3. Correlation matrix for predictor variables

<table>
<thead>
<tr>
<th></th>
<th>CREDIT</th>
<th>LIQ</th>
<th>OPER</th>
<th>ROA</th>
<th>SIZE</th>
<th>LEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREDIT</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIQ</td>
<td>0.062</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPER</td>
<td>-0.171*</td>
<td>-0.069</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.056</td>
<td>0.076</td>
<td>-0.084</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.021</td>
<td>0.123</td>
<td>0.547**</td>
<td>0.077</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.117</td>
<td>0.096</td>
<td>0.006</td>
<td>-0.158</td>
<td>0.130</td>
<td>1.000</td>
</tr>
</tbody>
</table>

(**) Significant at 0.01, (*) Significant at 0.05

The above table shows that maximum value of correlation coefficient (0.547) occurred between (Operational risk (OPER)) and (bank size (SIZE)). This value indicates no existence of multicollinearity. Otherwise, the other values were less than (±0.80), which means there were no perfect relationships between variables. In the statistical literature the value (0.80) and more are considered as an indicator of multicollinearity existence Gujarati, (2004).
## Hypothesis Testing

The main purpose of current research is to investigate the impact of unsystematic financial risks in stock return in Jordanian commercial banks listed on the Amman bursa. Therefore, panel regression has been run. Since this type of regression was run with all bank-year observations through the period 2009 until 2019, a pooled regression model was the appropriate one to estimate research models.

### First research hypothesis:

H01: There is no statistically significant effect of credit risk on market returns in Jordanian commercial banks.

### Table 4. Pooled Regression Model for H01

<table>
<thead>
<tr>
<th>Variable</th>
<th>Co-eff</th>
<th>Std Error</th>
<th>T-value</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREDIT</td>
<td>-1.117</td>
<td>0.159</td>
<td>-7.026</td>
<td>0.000</td>
</tr>
<tr>
<td>ROA</td>
<td>1.306</td>
<td>1.439</td>
<td>0.907</td>
<td>0.366</td>
</tr>
<tr>
<td>SIZE</td>
<td>-2.152</td>
<td>0.328</td>
<td>-6.568</td>
<td>0.000</td>
</tr>
<tr>
<td>LEV</td>
<td>-12.379</td>
<td>15.466</td>
<td>-0.800</td>
<td>0.425</td>
</tr>
<tr>
<td>Constant</td>
<td>62.415</td>
<td>15.606</td>
<td>3.999</td>
<td>0.000</td>
</tr>
</tbody>
</table>

| R-squared | 0.194 |
| Adjusted R-squared | 0.170 |
| F-statistic | 8.289 |
| Prob*(F-statistic) | 0.000 |
| D-W | 1.799 |

*Significant at 0.05 level.

The above table reports that R Square, the coefficient of determination equal to (0.194), which means that about (19.4%) of the variation in (SR) is explained by the model. The significance value of the F statistic (F=8.289) is (Prob F = 0.000) less than 0.05, which means that the effect of independent variables aggregated is significant.

Moreover, the coefficients of the regression states that the (CREDIT) has a significant negative effect on (SR), where coefficient value equals (-1.117), significant with (t= -7.026) and (P-value =0.000) less than 0.05. (ROA) has no significant effect, where coefficient value equals (1.306), not significant with (t= 0.907) and (P-value =0.366). (SIZE) has a negative significant effect, where coefficient value equals (-2.152), significant with (t= -6.568) and (P-value =0.000). Also, (LEV) has no significant effect, where coefficient value equals (-12.379), not significant with (t= -0.800) and (P-value =0.425). Moreover, (D-W = 1.799) indicates there is no serial correlation, where Durbin-Watson value nearby (2) indicates there is no serial correlation between error terms.
These results indicate that credit risk affects the stock market return of Jordanian commercial banks, as investors analyse the level of credit risk before making investment decisions, because these risks affect the performance of banks and thus future cash flows, as the ratio of bad loans to total loans and a reserve ratio loss of loans to total loans affect all profitability indicators (Noman et al., 2015). In theory, this result is consistent with the assumption that a higher non-performing loan ratio is associated with lower bank profitability (Munangi & Bongani, 2020). This will affect expected future earnings, which will affect stock prices and stock market returns. This result can also be explained by the fact that the failure of the borrowers or the bank’s customers to pay their obligations, whether the debtor pays the full amount later than the specified time or fails to pay the full amount or does not pay at all will have an impact on the future cash flows of the banks (Cui et al. 2012), thus affecting the payments to shareholders, which will be reflected in stock returns.

Second research hypothesis:

H02: There is no statistically significant effect of liquidity risk on market returns in Jordanian commercial banks.

Table 5. Pooled Regression Model for H02

<table>
<thead>
<tr>
<th>Variable</th>
<th>Co-eff</th>
<th>Std Error</th>
<th>T-value</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIQ</td>
<td>-62.559</td>
<td>7.114</td>
<td>-8.794</td>
<td>0.000</td>
</tr>
<tr>
<td>ROA</td>
<td>18.717</td>
<td>135.575</td>
<td>0.138</td>
<td>0.890</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.590</td>
<td>0.427</td>
<td>-1.382</td>
<td>0.169</td>
</tr>
<tr>
<td>LEV</td>
<td>6.738</td>
<td>21.781</td>
<td>0.309</td>
<td>0.758</td>
</tr>
<tr>
<td>Constant</td>
<td>25.455</td>
<td>19.884</td>
<td>1.280</td>
<td>0.203</td>
</tr>
</tbody>
</table>

*Significant at 0.05 level.

The above table reports that R Square, the coefficient of determination equal to (0.291), which means that about (29.1%) of the variation in (SR) is explained by the model. The significance value of the F statistic (F=14.133) is (Prob F = 0.000) less than 0.05, which means that the effect of independent variables aggregated is significant.

Moreover, the coefficients of the regression states that the (LIQ) has a significant negative effect on (SR), where coefficient value equals (-62.559), significant with (t= -8.794) and (P-value =0.000) less than 0.05. (ROA) has no significant effect, where coefficient value equals (18.717), not significant with (t= 0.138) and (P-value =0.890). (SIZE) has no significant effect,
where coefficient value equals (-0.590), not significant with (t= -1.382) and (P-value =0.169). Also, (LEV) has no significant effect, where coefficient value equals (6.738), not significant with (t= 0.309) and (P-value =0.758). Moreover, (D-W = 1.816) indicates there is no serial correlation, where Durbin-Watson value nearby (2) indicates there is no serial correlation between error terms.

These results indicate that liquidity risk affects the stock market return of Jordanian commercial banks' shares, as investors analyse the level of liquidity risk before making investment decisions. The banks’ inability to meet their obligations to others or to finance the increase of assets, leads to a negative impact on the bank’s profitability and consequently stock prices, especially when the inability to immediately liquidate assets at an acceptable cost (Ruziqa, 2013; Rahman et al., 2015). Which leads to the effect stock market return, and dealers in the financial markets are concerned with the ability of banks to provide liquidity in the future because it is linked with dividends (Warad & Al-Debi'e, 2017). Consequently, the risks associated with liquidity will have an impact on stock prices, which will be reflected in the stock market return.

**Third research hypothesis:**

**H03: There is no statistically significant effect of operational risk on market returns in Jordanian commercial banks.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Co-eff</th>
<th>Std Error</th>
<th>T-value</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPER</td>
<td>6.129</td>
<td>0.567</td>
<td>10.816</td>
<td>0.000</td>
</tr>
<tr>
<td>ROA</td>
<td>3.613</td>
<td>1.193</td>
<td>3.027</td>
<td>0.003</td>
</tr>
<tr>
<td>SIZE</td>
<td>-4.748</td>
<td>0.797</td>
<td>-5.961</td>
<td>0.000</td>
</tr>
<tr>
<td>LEV</td>
<td>57.028</td>
<td>25.491</td>
<td>2.237</td>
<td>0.027</td>
</tr>
<tr>
<td>Constant</td>
<td>-60.104</td>
<td>28.235</td>
<td>-2.129</td>
<td>0.035</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>R-squared</td>
<td>0.494</td>
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<tr>
<td>Adjusted R-squared</td>
<td>0.479</td>
</tr>
<tr>
<td>F-statistic</td>
<td>33.712</td>
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<td>Prob*(F-statistic)</td>
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<tr>
<td>D-W</td>
<td>1.959</td>
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*Significant at 0.05 level.

The above table reports that R Square, the coefficient of determination is equal to (0.494), which means that about (49.4%) of the variation in (SR) is explained by the model. The significance value of the F statistic (F=33.712) is (Prob F = 0.000) less than 0.05, which means that the effect of independent variables aggregated is significant.
Moreover, the coefficients of the regression states that the (OPER) has a significant positive effect on (SR), where coefficient value equals (6.129), and is significant with ($t = 10.816$) and ($P\text{-value} = 0.000$) less than 0.05, while (ROA) has a positive significant effect, where coefficient value equals (3.613) and is significant with ($t = 3.027$) and ($P\text{-value} = 0.003$). (SIZE) has a negative significant effect, where coefficient value equals (-4.748), significant with ($t = -5.961$) and ($P\text{-value} = 0.000$). Also, (LEV) has a positive significant effect, where coefficient value equals (57.028), significant with ($t = 2.237$) and ($P\text{-value} = 0.027$). Moreover, ($D-W = 1.959$) indicates there is no serial correlation, where Durbin-Watson value nearby (2) indicates there is no serial correlation between error terms.

These results indicate that operational risks affect the stock market return of Jordanian commercial banks, as investors analyse the level of operational risks before making investment decisions. This finding is consistent with Cummins et al. (2006), who indicated that there is an impact of operational risks on stock returns. The study emphasised that the market value of companies’ shares responds to operational losses, which leads to a decrease in the value of stocks with an increase in operational risks. In addition, the impact of operational risks on financial performance (Obeng & Waweru, 2017; Ebenezer et al., 2018; Hassan et al., 2016; Hakimi & Boukaira, 2020). This will be reflected in the stock prices, which will affect the stock market returns. Poor management of operational risks leads to increased operational losses and lower levels of future profits (Isshaq & Bokpin, 2009). As a result, operating risks can have an impact on stock prices and stock market return.

Conclusions

This study aimed to explore the impact of unsystematic risks (credit risk, liquidity risk and operational risks) on the stock market return in Jordanian commercial banks during the period 2009 to 2019. The study sample consisted of all Jordanian commercial banks, after excluding the (3) Islamic banks from the study sample, due to the different nature of their activities, and thus the final sample size became (13) banks. The researcher relied on secondary data obtained from the Amman Stock Exchange website to calculate the stock market return and the financial statements of Jordanian commercial banks to measure the level of unsystematic risk. The stock market return was calculated through the combined monthly return for a period of twelve months starting from May of the fiscal year and ending in April of the following fiscal year. Thereby, the period between May of a particular year and April of the following year represents the window of study.

The study found an impact of unsystematic risks (credit risk, liquidity risk and operational risk) on the stock market return in Jordanian commercial banks. The results of the study are consistent with the fact that the motivation of investors to make investment decisions is to increase their returns by maximising the profits they obtain through ownership of shares during a specific period of time. Thus, the returns they obtain cannot be separated from the risk factors associated with the banks whose shares they own, because investors always expect an
appropriate level of return on each type of risk they face. Investors' attitude to risk depends on the risk preferences they expect. Investors who tend to adopt a high level of risk will tend to invest in high-risk bank stocks, as they are accompanied by a high level of returns as well (Iwayan & Anom, 2020).

The positive relationship between unsystematic risk and stock market returns can be explained through many assumptions and theories, as asset prices in the financial markets according to the market efficiency hypothesis reflect all relevant information about these assets, and therefore the information about the unsystematic risks that banks are exposed to will affect stock prices, and is directly reflected in their market returns. In view of the random walk theory, fluctuations in stock prices will reflect both the previous information and any event that the market expects to happen in the future. Therefore, the stock market returns are closely related to the level of unsystematic risks, as analysis of informal risks will increase the ability of investors in the financial markets to anticipate future events, which will neutralise the systematic behaviour in the price chain. Therefore, the actual prices of the securities will randomly revolve around the intrinsic value.

Given the above results, the study recommends the need for commercial banks to pay attention to unsystematic risks because of their impact on the stock market return, and thus maximise the wealth of owners, as the value of market shares reflects investors' perceptions of the performance of companies and the efficiency of their management, and thus analysing the erratic risks that banks may be exposed to increases the ability of investors to predict future changes in the bank's economic environment.
REFERENCES


Saragih, J. L. (2018). The Effects of Return on Assets (ROA), Return on Equity (ROE), and Debt to Equity Ratio (DER) on Stock Returns in Wholesale and Retail Trade Companies Listed in Indonesia Stock Exchange. *International Journal of Science and Research Methodology, 8*(3), 348-367.

