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EFFECT OF INTEREST RATE RISK ON FINANCIAL PERFORMANCE THE MEDIATING ROLE OF BANKING SECURITY DEGREE: EVIDENCE FROM THE FINANCIAL SECTOR IN JORDAN

Zaher Abdel Fattah AL-SLEHAT*

Department of Business Economic, Faculty of Business, Tafila Technical University, Tafila, Jordan

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Abstract. The current study aims to determine the effect of interest rate risk on financial performance through the banking security degree as a mediating variable. The study population includes 13 Jordanian commercial banks from 2011 to 2018. To achieve the current study objectives, a descriptive and analytical approaches were used. Furthermore, Baron and Kenny's test (1986) were adopted to examine the current study hypotheses. The results found that the banking security degree partially affects the relationship between interest rate risk and financial performance. Accordingly, this study provides a set of recommendations. Among them, we encourage policymakers and bank owners, and managers to develop efficient interest rate risk policies continuously in addition to strengthening the monetary and financial policies of the banking sector. They should strive to achieve a balance between each of the risks of interest rate, performance, and banking security degree.

Keywords: interest rate risk, financial performance, banking security degree.

JEL Classification: F65, G21, G32.

Introduction

In addition to the credit facilities they provide, banks accept deposits and create money, mediate exchanges between various economic sectors, and provide many banking services to different individuals, institutions, and comprehensive banking (Matthews & Thompsom, 2005). Previous studies (Al-Ali, 2002; Ramadan & Jouda, 2013; Breslin et al., 2003; Mishkin, 2004; Frost, 2004; Mwenda, 2000; Brealey & Myers, 2003) indicated that the primary function of commercial banks is to accept deposits in all their forms and return and operate them by granting credit against a profit margin resulting from the difference between interest paid on deposits and received on loans. Thus, the interest rate is significant in the process of collecting deposits and allocating funds as it determines the level of consumption and investment in a country. It also affects the rate of economic growth. The changes in interest rates are related to the healthy and proper performance of the banking sector because their risks are closely related to the assets and liabilities of banks (Kolapo & Fapetu, 2015).

The banking sector witnessed great developments at the internal and external levels. At the domestic level, a huge expansion has occurred in the use of new financial instruments. As for the external level, globalization and competition are the most prominent in the banking industry. The Jordanian banking sector operates in an environment characterized by domestic and foreign competition. Moreover, this sector is simultaneously subject to the Banking Law and the Companies Law. Thus, its exposure to many risks is high. Given that these risks affect the financial performance of Jordanian banks, bank owners need to manage them in a way that enhances their financial performance in light of the existence of banking security, which is significant in achieving future goals. Accordingly, the study aims to identify the effect of interest rate risk on financial performance through the banking security degree as a mediating variable in the period 2011 to 2018.

1. Theoretical framework

1.1. Interest rate risk

Banks are facing a set of banking risks that require measurement and management, and thus they should avoid or minimize these risks as much as possible. Many

*Corresponding author. E-mail: *zalabadi@yahoo.com*

researchers (Yaylali & Safakli, 2015; Ishtiaq, 2015; Ciuhureanu & Baltes, 2014) indicated that banks face a number of risks. These risks involve foreign exchange, liquidity, nominal, legal, credit, interest rate, market, operational, and reputation risk. Apatachioae (2015) argued that banking risks arise during banking and cause negative effects on activities, which in turn reduce profits or record a loss. The above study also classified these risks into permanent risks or unique risks or those that arise from internal or external reasons.

Interest rate risk is considered one of the major risks that banks face (Ballester et al., 2009). As a solution, banks devise a strategy to avoid this type of risk. According to the Basel Committee on Banking Supervision 2004, interest rate risk manifests itself from sources that include repricing risk, yield curve risk, and base risk (Kolapo & Fapetu, 2015).

Scholars (Cherubini & Lunga, 2007, Santomero, 1997; Al-Sayed & Al-Issa, 2004) affirmed that interest rate risks exist in any product or service provided. Therefore, banks usually hedge these risks by entering into swap operations, managing the interest rate sensitivity gap, implying that this type of risk is a source of concern, and banks need to monitor it continuously, as the banking sector views this type of risk as part of the market risk.

Interest rate risk leads to a decline in profits due to unexpected fluctuations (Ishtiaq, 2015; Ekinci & Poyraz, 2019; Stavroula, 2009; Mohammad et al., 2020; Kumar, 2015; Bessis, 2010). Interest rates negatively affect bank assets and the income generated from them. The effect of fluctuation in interest rates depends on bank income and the net value in the balance sheet structure; that is, between interest-sensitive assets and liabilities and their length of maturity. Tarullo (2008) also pointed out that interest rate risks refer to the problems that arise for banks when their increase leads to an almost immediate increase in the cost of bank capital. Al-Shabib (2015) explained that interest rate risk is measured through the ratio of sensitive assets to sensitive liabilities, short-term securities, floating interest loans, are the most sensitive assets for interest rate fluctuations. While demand deposits, savings deposits, short-term deposits, and loans received by the bank are the most sensitive liabilities for the interest rate, it is measured through the sensitive Assets to interest rate change to the sensitive liabilities to interest rate change. While Ngalawa and Ngare (2014) pointed that the percentage net interest income to the total income of the bank would suggest the extend of the exposure to interest rate risk.

1.2. Financial performance

Performance is the ability to achieve and stabilize income and maintain growth. Financial performance can be defined broadly as the degree to which banks have reached their financial goals, which is an important field of financial risk management (Ebba, 2016; Wekesa, 2016). Morover, is the set of procedures to measure the corporate policies and operations results in aspects of monetary matters or the effective use of assets to achieve profits. Financial experts focused on performance because it plays a key role in achieving good growth trends in the future and helping in making the right investment decisions. Nuhiu et al. (2017) indicated that the financial performance of banks has an important effect on the growth of the country's economy. A set of determinants, including non-performing loans, asset quality, management quality, liquidity, loan-to-deposit ratio, cash to total assets ratio, and capital efficiency, also affect financial performance (Ebba, 2016; Mobarak, 2020).

Al-Daami and Al-Marsoumi (2017) indicated that financial performance is an outcome of bank activity evaluation with measures that can identify what banks have achieved with their actual goals and compare them with the planned goals. Measuring financial performance is significant because it provides a measure of a bank's success in achieving its goals. It is a source of information for various administrative levels in banks for planning, control, and decision-making purposes. However, several factors, including the capital structure due to debt and the profit distribution decision that determines the amount of retained earnings that affect future growth, investment decision, and liquidity decision affect financial performance (Muiruri & Wepukhulu, 2018).

Sisay (2017) defined performance as a measure that determines how well companies use their available resources to generate revenues. It measures the financial and monetary health of an institution. Thus, it is a method for comparing companies. The return on equity is a measure of performance as indicated by previous studies (Anderloni et al., 2009; Mobarak, 2020; Ross et al., 2010; Gweyi et al., 2018; Ahmadyan, 2017; Muriithi & Waweru, 2017; Dassie, 2018; Giwa, 2019; Sikolia & Miroga, 2018; Oludhe, 2011; Wekesa, 2016; Cortes-Sanchez & Rivera, 2019). Financial performance is the profitability or the rate of return that a company achieves within a period through efficient use of its assets to generate revenues. And financial performance is Important for the stakeholders such as creditors, suppliers, employees, and clients (Savitri, 2018).

1.3. Banking security degree

Bank security is one of the most important goals that banks seek to achieve because of its critical role in reducing the risk of using the money of depositors. Banks can guarantee their safety through the availability of sufficient capital that increases their ability to face any potential losses. Safety is an indication of a low level of risk in a bank, as security is inversely proportional to risk (Talib et al., 2017).

Banking security refers to the situation in which banks have strong financial positions and can operate efficiently within a safe economic environment, regulatory rules, and vigorous banking administration. With banking security, banks can avoid crises and achieve efficiency in the process of allocating resources in a way that contributes to their financial growth (Abdul Shara & Al-Harmoushi,

2019). Thus, it is significant not only to banks but also to their customers and the economy.

Scholars should consider opportunities and threats and explore the relationship between the financial system in the economy and the standard of living, in addition to studying activities in various economic sectors. In this way, they can ensure an optimal level of security by forming a systematic basis. When studying opportunities and threats, studies should define areas of protection and introduce preventive measures and tactical steps to reach optimal banking security (Lelyuk & Rodehenko, 2019).

Banking security refers to banks' commitment to the safe management of their assets and ensuring the security and safety of their customers and employees.

It is the physical security, internal audits, and procedures established to ensure the safety of customers, accounting reports, protection from any attacks, confidentiality, and the return of deposited funds. Thus, creating an environment in which the hazardous conditions are absent or reducing their potential consequences for banks is critical (Bojinov, 2016).

According to the theoretical framework, the objective of the current study seeks to know the effect of the Banking Security Degree as a mediating variable on the relationship between interest rate risk and the financial performance of the Jordanian commercial banking sector from 2011 to 2018. Specifically, the current study aims to:

1. Identify the effect of interest rate risk on financial performance.
2. Identify the effect of interest rate risk on banking security degree.
3. Identify the effect of banking security degree on financial performance.
4. Identify the effect of banking security degree as a mediating variable on the relationship between interest rate risk and financial performance.

2. Study problem

The study problem appears in the lack of conceptual awareness of the banking security degree and its relevance to banking risks and performance. To sum up, we aim to answer the following research questions:

What are interest rate risk, financial performance, and banking security degree?

1. Does interest rate risk affect financial performance?
2. Does interest rate risk affect the banking security degree?
3. Does the banking security degree affect financial performance?
4. Does the banking security degree mediate the relationship between interest rate risk and financial performance?

3. Study significance

The importance of this study lies in the interest rate risks in the Jordanian commercial banking sector and how to reflect it in achieving a banking security degree that enhances financial performance and thus attracting more customers. The following points reflect the novelty of this study:

1. The importance of banking risk management in general and its effect on financial performance.
2. The link between the variables that guide financial decisions to enhance the added market value of banks.
3. The effect of interest rate risk on financial performance and banking security degree.

4. Previous studies and hypotheses development

Amsalu (2019) conducted a study to assess the influence of financial risks on the performance of Ethiopian commercial banks for a sample of seven listed banks over the period from 2000 to 2017. The results indicated that (interest rate risk, inflation rate risk, and foreign exchange risk) had a statistically significant and positive effect on the return on assets. Similarly, Kolapo and Fapetu (2015) examine of the effect of interest rate risk on the performance of Nigerian banks during the period from 2002 to 2011 and found a weak effect for the interest rate risk on performance. In the contrary, Musiega et al. (2017) found a positive relationship between interest rate risk and performance. However, a positive and significant relationship has been found between interest rate risk and performance as measured by return on equity among from 63 commercial banks in ASEAN-5 countries during the period (2009–2017) in study Ebenezer et al. (2019). Similarly, Musa (2011) found that interest rate has also had a positive effect on the financial performance of Kenyan banks over the period 2006 to 2010.

Based on the above literature review, the first hypothesis developed as follow:

H01: Interest rate risk influences the financial performance (at 0.05 significance level).

Shaheen and Sabah (2011) studied the security level of the Palestinian banking system for the period from 1979 to 2008 and found a positive effect on the perspectives of risk and the level of security. While Omran (2015) did not find any effect for interest rate risk on the Bank Security Degree among Syrian commercial banks over the period from 2008 to 2013. In Jordan, Al Ajlouni and Alrgaibat (2014) found a positive impact for interest rate risk on the security level of Jordanian commercial banks during the period from 2000 to 2011.

Based on the above discussion, it can be hypothesized that there is an impact for interest rate risk on banking security degree. Thus, the second hypothesis are developed as follows:

H02: Interest rate risk influences the banking security degree (at 0.05 significance level).

Khrawish et al. (2004) conducted a study to assess the main factors that may affect the banking security of Jordanian commercial banks over the period from 1992 to 2002 and found a positive effect for both the rate of return

on equity and rate of return on investment on the bank security level.

Accordingly, the third hypothesis can be developed as follow:

H03: banking security degree influences the financial performance (at 0.05 significance level).

Prior studies in the field have shown a positive and significant relationship between the interest rate risk and the financial performance (e.g. Amsalu, 2019; Musa, 2011). Furthermore, several studies have supported the positive relationship between the interest rate risk and the banking security level (e.g. Al Ajlouni & Alrgaibat, 2014; Shaheen & Sabah, 2011; Omran, 2015). In addition, a positive relationship between banking security degree and financial performance has been found in Khrawish et al. (2004).

Based on the above-mentioned studies, the researcher concluded that there is an expected mediating effect for the banking security degree on the relationship between interest rate risk and financial performance. Hence, the fourth hypothesis can be developed as follows:

H04: banking security degree has no mediation effect (at 0.05 significance level) on the relationship between interest rate risk and financial performance.

4.1. Study contributions

This study contributes to existing literature and is different from previous studies in the following three dimensions: First, we measure financial risk by using interest rate risk. Second, we measure financial performance by using the return on equity. Finally, we consider the presence of an intermediary variable, which we measure using the banking security degree. Each dimension occupies importance in the financial and administrative sciences.

In terms of the science of finance, these indicators provide information that helps bank owners make future decisions that enhance their wealth. In terms of administration, banks should manage risks healthily to ensure that the banking sector would not fall into crises. The increase in the confidence of dealers in banks reflects such a condition. To the best of our knowledge, no study has yet made an effort to link these variables together.

5. Study methods

We use a descriptive approach to build a theoretical framework related to the subject of this study. In addition to an analytical approach, we also conduct a set of analyses to study the effect of banking security degree as a mediating variable in the relationship between interest rate risks and banking performance (Baron & Kenny, 1986).

5.1. Population

We use the comprehensive survey method to study a population consists of all Jordanian commercial banks from 2011 to 2018.

5.2. Variables measurement

Through a review of previous studies, we measure our variables as follows:

The independent variables:

Interest rate risk (IRR) =
The sensitive assets to interest rate change /
the sensitive liabilities to interest rate change.

The mediator variable:

Banking security degree (BSD) =
Equity / Total assets.

The dependent variables:

Financial performance (Return on equity) =
Net income / Total equity.

5.3. Study model

Based on the study problem and previous studies. The researcher developed the following research model which is shown in Figure 1.

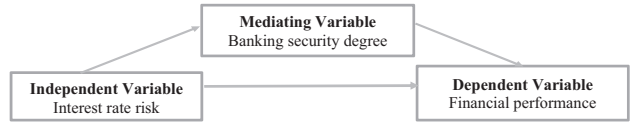

Figure 1. The research model (source: developed by researcher)

5.4. Data collection procedures

We use the following sources and references to complete this study:

Annual reports published by the study community banks, books, scientific research, periodicals, and references related to the subject, master's theses, and doctoral theses published online.

6. Data analysis and hypothesis testing

6.1. Descriptive analysis

Table 1 explains the descriptive analysis results. Accordingly, the results indicate that the study population is relative in terms of interest rate risks, banking security degree, and financial performance, where the arithmetic mean is 9.3788, 12.2724, and 12.1234, respectively. Moreover, the standard deviations are 2.88120, 4.00122, and 3.47180. These results are due to the difference in the size of assets in the study population.

Table 1. The descriptive analysis

Variables	N	Mean	Std.
IRR	104	9.3788	2.88120
BSD	104	12.2724	4.00122
ROE	104	12.1234	3.47180
Valid N (listwise)	104		

Note: whereas: IRR: Interest rate risk; BSD: Banking security degree; ROE: Return on equity.

6.2. Pearson correlation

The results in Table 2 refer to the analysis of the Pearson correlation matrix and show positive correlations between the study variables (interest rate risk, banking security degree, and financial performance).

Interest rate risk also has a positive and statistically significant correlation with banking security degree (0.462) and financial performance (ROE) (0.525). The results also indicate the existence of a positive and statistically significant correlation between banking security degree and financial performance (ROE), with a value of 0.667.

Table 2. The matrix of correlation for the study variables

Correlations			
Variables	IRR	BSD	ROE
IRR	1	.462**	.525**
BSD		1	.667**
ROE			1

Note: whereas: IRR: Interest rate risk; BSD: Banking security degree; ROE: Return on equity.

**. Correlation is significant at the 0.01 level (2-tailed).

6.3. Hypotheses testing

H01: Interest rate risk influences the financial performance (at 0.05 significance level).

The results in Table 3 indicate an F value of 38.738, which is the highest of its tabulated value and statistically significant ($\alpha \leq 0.05$). Moreover, interest rate risks have explained 27.5% of the change in the return on equity, where the value of R^2 is 0.275. The value of 1.794 obtained from the Durbin-Watson test indicates no autocorrelation exists between the errors in the regression equation.

Table 4 shows the simple regression analysis results of H01, which indicates that interest rate risk positively affects financial performance. When we measure this relationship by using the return on equity, we obtain a calculated t value of 6.224, which is higher than the tabulated value and a statistical function at the level of significance ($\alpha \leq 0.05$). Moreover, $\beta = 0.525$. Therefore, the results accept the first hypothesis, which indicates that interest rate risk has a statistically significant effect on financial performance (measured by return on equity).

Table 3. Result of examining the effect of Interest rate risk on return on equity

Independent Variable	Regression coefficient			
	B	Beta	Calculated T	Sig t*
Interest rate risk (IRR)	0.632	.5250	6.224	.000*0
Correlation coefficient (R)	0.525a			
Coefficient determination (R^2)	0.275			
Durbin-Watson	1.794			
Calculated of F	38.738			
Sig. F*	.0000			

Notes: Dependent Variable is the Return on Equity (ROE). (*) The effect is statistically significant at ($\alpha \leq 0.05$)

H02: Interest rate risk influences the banking security degree (at 0.05 significance level).

The results in Table 4 indicate a calculated F value of 27.617, which is greater than the tabulated value and is statistically significant ($\alpha \leq 0.05$). Moreover, interest rate risks interpret 21% of the change in the banking security degree, indicating an R^2 value of 0.213. The value of Durbin-Watson (1.754) is also within the acceptable limits of this test.

Table 4 refers to the simple linear regression analysis results of H02. We conclude a positive and statistically significant correlation exists between interest rate risk and banking security degree. We obtain a calculated t value of 5.255, which is greater than its tabulated value and a statistically significant function ($\alpha \leq 0.05$). Moreover, $\beta = 0.462$. Thus, the results accept H02, which indicates that interest rate risk has a statistically significant and positive effect on the banking security degree for the community under examination and analysis.

Table 4. Result of examining the effect of Interest rate risk on banking security degree

Independent Variable	Regression coefficient			
	B	Beta	Calculated T	Sig t*
Interest Rate Risk (IRR)	0.641	.4620	5.255	0.000*
Correlation coefficient (R)	.4620			
Coefficient determination (R^2)	0.213			
Durbin-Watson	1.754			
Calculated of F	27.617			
Sig. F*	0.000			

Notes: Dependent Variable is the Banking security degree (BSD). (*) The effect is statistically significant at ($\alpha \leq 0.05$).

H03: banking security degree influences the financial performance (at 0.05 significance level).

The results in Table 5 indicate a calculated F value of 81.810, which is greater than its tabulated value and has statistical significance ($\alpha \leq 0.05$). Moreover, the banking security degree explained 44.5% of the change in financial performance, indicating an R^2 value of 0.445. Its Durbin–Watson value of 1.715 also shows that no autocorrelation exists between the errors involved in the regression equation.

Table 5 also presents the existence of a statistically significant relationship between banking security degree and financial performance. The value of t calculated in accordance with the simple regression equation 9.045 is more

than the tabulated value and is statistically significant ($\alpha \leq 0.05$). Moreover, $\beta = 0.667$. Thus, the results accept H03, which indicates that a banking security degree has a statistically significant and positive effect on financial performance.

Table 5. Result of examining the effect of Banking security degree on financial performance

Independent Variable	Regression coefficient			
	B	Beta	Calculated T	Sig t*
Banking security degree (BSD)	579.0	.6670	9.045	.000*0
Correlation coefficient (R)	.6670			
Coefficient determination (R^2)	0.445			
Durbin-Watson	1.715			
Calculated of F	81.810			
Sig. F*	.0000			

Notes: Dependent Variable is the return on equity (ROE). (*) The effect is statistically significant at ($\alpha \leq 0.05$).

H04: banking security degree has no mediation effect (at 0.05 significance level) on the relationship between interest rate risk and financial performance.

The hypothesis of the mediating variable requires a set of steps following several statistical methods to verify the validity of H04. The Baron and Kenny method is significant in testing the hypothesis of the mediating variable.

Baron and Kenny Test

The test (Baron & Kenny, 1986) includes three conditions or three regression equations. If we fulfill these conditions, then we can conclude that the banking security degree mediates the relationship between the interest rate risk and financial performance, and this mediation may have a total or partial effect.

Condition 1: The independent variable affects the mediating variable (Equation 1).

Table 6 shows the regression analysis results of interest rate risk on the banking security degree, where the value of the regression equation is 0.641, which is statistically significant at 0.000. This result fulfills the first condition in the model (Baron & Kenny, 1986).

Table 6. Result of the coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.260	1.196		5.233	.000
	Interest Rate Risk (IRR)	.641	.122	.462	5.255	.000

Note: Dependent Variable is the Banking Security Degree (BSD).

Condition 2: The interest rate risk affects the financial performance (Equation 2): (the total effect path).

To verify the second condition, we conduct a regression analysis. The result in Table 7 shows that interest rate risk affects financial performance, where the value of the regression equation is 0.632, with a statistical significance of 0.000. This result fulfills the second condition in the model (Baron & Kenny, 1986).

Table 7. Result of the coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.194	.996		6.218	.000
	Interest Rate Risk (IRR)	.632	.102	.525	6.224	.000

Note: Dependent Variable is the Return on Equity (ROE).

Condition 3: The banking security degree affects the financial performance in the presence of the interest rate risk (Equation 3).

Table 8 shows the following multiple regression results of the effect of interest rate risk and banking security degree on financial performance:

The regression coefficient of the banking security degree on the financial performance is approximately 0.469, which is statistically significant at 0.000.

The regression coefficient of the interest rate risk on the financial performance in the presence of the mediating variable (the direct effect of the independent variable on the dependent variable in the presence of the mediating variable) is approximately 0.332, which is statistically significant at 0.001.

Table 8. Results of the coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.261	.932		3.499	.001
	Banking Security Degree (BSD)	.469	.068	.540	6.841	.000
	Interest Rate Risk (IRR)	.332	.095	.275	3.488	.001

Note: Dependent Variable is the Return on Equity (ROE).

Figure 2 shows the test analysis results (Baron & Kenny, 1986). The intermediate variable (banking security degree) has a mediation effect on the relationship between interest rate risk and financial performance. This mediation has a

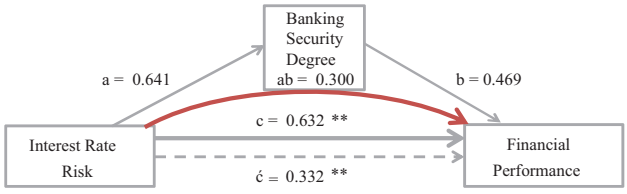

Figure 2. Sample study in accordance with the test (Baron & Kenny, 1986)

partial effect, as Equation 3 shows a significance level of 0.001. It also has a regression coefficient of 0.332, which is closer to zero than the second equation with the regression coefficient of 0.632.

Whereas: a: The first path (the effect of the interest rate risk on the banking security degree); b: The second path (the effect of the banking security degree on the financial performance); c: The total effect of the interest rate risk on the financial performance (without the mediating variable); ć: The direct effect of the interest rate risk on the financial performance and observed by the banking security degree; ab: Andrew F. Hayes test value.

Sobel Test

Table 9 explain the results the Sobel test, which indicate that the median effect is statistically significant ($\alpha \leq 0.05$), where the t value of 3.460 is significant at 0.000.

Table 9. Sobel test results

Inputs	Sobel test	P-value
a = 0.641 b = 0.469 Sa = 0.122 Sb = 0.102	3.460	0.000

Figure 3 shows the calculation for the SOBEL.TEST according to the site (Quantpsy, n.d., http://quantpsy.org/sobel/sobel.htm).

To ensure the accuracy of the results in the previous tests, we verify the effect of the mediating variable following the Andrew F. Hayes as in Table 10 through a test by bootstrapping the lower limits of the confidence interval at 95%. The test result shows a value of 0.1359. By bootstrapping the upper limits of the confidence interval at 95%, we obtain a value of 0.5215. We notice through the two values that zero does not cross them, implying that the intermediate variable mediates the relationship between the interest rate risk and financial performance. This mediation is partially statistically significant.

Table 10. Andrew F. Hayes test results

Indirect Effect(s) of X on Y:				
	Effect	BootSE	BootLLCI	BootULCI
Banking Security Degree (BSD)	0.3004	0.1000	0.1359	0.5215

7. Discussion

Interest rate risk has a positive effect on financial performance. On the basis of the results of the interest rate regression analysis, we find a positive and statistically significant relationship at the 95% confidence level on the return on equity (financial performance). This result shows that an increase or decrease in interest rate risk leads to an increase or decrease in performance, which implies that banks should use the right interest rate risk policies Furthermore, risk management (interest rate risk) assists in adding value to companies by reducing the cost or increasing revenues which in turn affects financial performance (Wood & McConney, 2017). This result is also in agreement with the findings of Amsalu (2019), Musiega et al. (2017), Musa (2011) and partly with the study of Ebenezer et al. (2019).

Interest rate risk has a positive effect on banking security degree. On the basis of the regression analysis results, we find that interest rate risk has a positive and statistically significant relationship at the 95% confidence level with the banking security degree. The Jordanian banking sector operates in an environment characterized by intense competition and globalization. Thus, an increase in interest rate risks also increases banking security degree. This result is in agreement with the studies of (Al Ajlouni & Alrgaibat, 2014; Shaheen & Sabah, 2001), whereas it disagrees with the study of Omran (2015).

The banking security degree has a positive effect on financial performance. On the basis of the regression

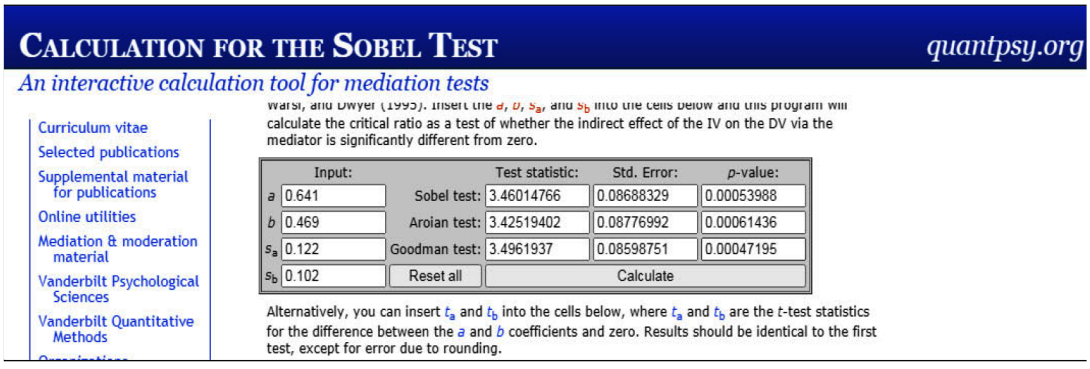

Figure 3. Calculation for the Sobel test

analysis results, the study revealed there is a positive relationship between bank security degree and financial performance at the 95% confidence level. Thus, an increase in banking security degree will offset by an increase in the rate of return on property rights, which requires the banking administration to achieve a balance between them in light of adherence to the Banking Law and the Companies Control Law. This result is partly in agreement with the findings of Khrawish Khrawish Khaled and Al-Abadi (2004).

Banking security degree partially mediates the relationship between interest rate risk and financial performance. To the best of our knowledge, this study is one of the first to explore the effect of the banking security degree on the relationship between interest rate risks and financial performance. Thus, our findings are of great significance to owners, managers, and financial analysts. This study examines interest rate risks and identifies how they affect banks' financial performance in light of the existence of a banking security degree, which enhances this effect.

Conclusions and recommendations

Conclusions

The current study aimed to determine the effect of interest rate risk on financial performance through the banking security degree as a mediating variable. Essentially, the current study were used descriptive and analytical approach. Moreover, Baron and Kenny's test (1986) were adopted to examine the current study hypotheses. The current study conclued that the banking security degree partially affects the relationship between interest rate risk and financial performance.

Recommendations

The banking sector should strengthen its monetary and financial policy in a way that reflects positive interest rate levels and thus achieve a balance between interest rate risks, performance, and banking security degree.

Banks should continuously communicate with their clients and inform them of interest rate changes in a way that achieves a balance between their income and commitment toward bank services.

Policymakers and bank owners and managers should develop a programs that conducts tests that simulate the effect of a change in financial risks on bank performance and banking security degree and benefit from relevant feedback.

This study focuses on the effect of interest rate risks on the financial performance of the Jordanian commercial banking sector from 2001 to 2018. We call for further studies that would consider similar or other sectors and include other variables of risk (such as liquidity risk and credit risk).

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