THE EFFECT OF LENDING POLICY ON THE PROFITABILITY OF COMMERCIAL BANKS: EVIDENCE FROM JORDAN

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Abstract

This study aims to find out the impact of the lending policies adopted by Jordanian commercial banks on their profitability. This study relied on the descriptive analytical approach to describe and review the theoretical framework of the study. The preliminary information was gathered through a questionnaire prepared for this purpose. The study population consisted of all the commercial banks operating in Jordan, numbering 13 banks during the period 2016-2020. The study concluded that the credit decisions in the Jordanian commercial banks are contributing to about 75.3% of their returns, and there is a statistically significant effect of lending policies (with their combined variables) on the profitability of commercial banks operating in Jordan. Also, the lending policies adopted by the Jordanian commercial banks have interpreted 53.9% of their profitability, and that is due to the strict lending policy adopted by these banks, and this result is adverse of Munyiri's (2010) results stating that a friendly lending policy will maximize demand and increases bank's profitability. Depending on the results, the study recommended that the Jordanian commercial banks should focus on a clearly allocated task, responsibilities, and powers within credit policies so that different administrative levels are granted the right to make high-quality credit decisions that enhance the speed of taking a decision, thereby increasing customer's base and profits.

Keywords: Lending Policies, Credit Risk, Credit Decisions, Profitability of Commercial Banks, Jordan

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1. INTRODUCTION

The Jordanian banking sector is one of the important sectors of the national economy. The Jordanian banking sector is represented by a number of commercial banks that operate together within the internal and external environment of the worldwide economy. In Jordan, there are only 13 commercial banks, which are all privately owned banks. The banking sector is also considered one of the active sectors in managing the local financial economy and keeping pace with its developments, as the main role of this sector is to provide an institutional framework aims to achieve real investments that support the process of growth and prosperity to its stakeholders in particular, and to the economy in general (Alali, 2019).

Despite the achievements of this sector, the current stage is characterized by a set of challenges that faces this sector, either by the lending policies adopted, or by decisions of management, nor by the competitiveness and other development requirements. In order to sustain and maintain their standing and continuity, and in order to be able to

meet these challenges, these banks should generate more profits through employing funds efficiently and effectively in order to maximize their wealth and the wealth of shareholders (Alshatti, 2015).

Bank's lending policy contains many elements designed to achieve profitability and reducing risks that banks may expose while performing their tasks, especially providing loans to clients (Basu, Inklaar, & Wang, 2011). As bank's lending policies are placed according to the central bank rules and regulations, accordingly these policies play an important role in the profitability of commercial banks operating in Jordan.

In addition to the central bank regulations, there are many factors that affect the profitability of commercial banks, whether in relation to the bank's own lending policies, customer's needs, size of deposits, guarantees, interest rate, supervision, and follow-up (Djalilov & Piesse, 2016). Also, under the current worldwide economic crisis and COVID-19 pandemic, some banks are adopting strict lending policies that affect their profitability. The previous justifications identify the current problem of the study and aims to find out the impact of these factors on the profitability of commercial banks and eventually suggesting some ideas that may help the banking sector to develop effective and influential policies to improve profitability and sustainability of the business.

The importance of the study is represented in the economic changes that banks are witnessing from the consequences of COVID-19, and the global financial crisis which led banks to adopt strict lending policies, and conservative regulations, which are expected to impact the profitability of these banks. So, the outcomes of this study may help banks operating in Jordan in improving their lending policies, attracting customers, and making correct lending decisions.

The paper begins with the introduction; then, the second part presents the existing literature on this topic; the third part describes the methodology; the fourth part summarizes the results discussion and the recommendations; the fifth part represents the limitations of the research; and finally.

2. LITERATURE REVIEW

The banking sector is one of the most important sectors that serve societies of all kinds, whether on the personal level, national level, or at a worldwide level. As this sector is seen as a strategic partner in achieving development and sustainability, so bank's lending policies are among the most important factors and foundations that reveal the effective performance of banks in various aspects of its operations and operational activities, and also, determines the extent of the administration's success in exploiting the available resources and capabilities to achieve the desired goals (Olalere, Wan Bin Omar, & Kamil, 2017).

According to the instructions and regulations of the central bank (CB), the bank's board of directors formulate its own lending policies and rules of governance. The board is responsible for implementing and supervising these rules, also it enjoys the powers stipulated in the bank's law in force, and in particular, undertakes the tasks and powers and adopts a written credit and investment policy that defines the foundations and conditions for granting credit facilities and the basis of its investments. As the father of banks, CB in return should be provided with a copy of the bank's lending policy, and CB should be notified of any amendments that occur to it, also CB monitors the implementation of the bank's policies and ensures the correctness of the procedures followed by the bank's management (Central Bank of Jordan, 2017).

The bank's lending policy is a well-thought-out action plan to guide decision-makers and achieve logical results, and it represents a set of standards and guidelines to be followed while granting loans, it also includes monitoring tasks, in addition to crisis management (Kuo, Wang, Lai, Yu, & Wu, 2010).

Lending policies tend to be similar in all sectors of commercial banks, but the requirements under each individual policy are unique to each commercial bank, and it also includes a policy of recognizing credit losses and determining losses resulting from credit facilities in a timely manner (Ganopoulou & Giapoutzi, 2010). Lending policies define the minimum requirements of information and data that must be obtained for the evaluation process of mortgages, it also contains the mechanism of determining affordability, loan duration, and collateral evaluation in addition to the regulations of unsecured personal loans that specifies the minimum number of documents that must be provided before granting loans (Kuo et al., 2010; Ong'era, 2016).

Lending policies are classified through a specialized department in this field. There are some commercial banks that focus on identifying customers, whether individuals or companies, and their policies are designed to suit the same segment of customers, and this applies to banks that target clients through the mass market and define lending policies according to target market share. When the lending process is very strict and stringent, customers tend to move away from these banks and this reduces their profits generated (Xiaojiang & Xiaoguang, 2009; Munyiri, 2010).

The performance of commercial banks is measured by various metrics such as market share, branch network, asset base, profitability, and loan quality (Vong & Chan, 2009; Ramadan, Kilani, & Kaddumi, 2011).

The lending policy of commercial banks is determined through their main clients; customers, and business targets, and as they formulate the main source of income to commercial banks. Attracting and retaining profitable clients and increasing revenues from these clients is also a priority for managers of all commercial banks, and in order to attract clients and maintain profitable lending policies, lending policies must be formulated in a way that makes them suitable for customer's needs, and at the same time contains the minimum risk (Vong & Chan, 2009; Ramadan et al., 2011; Basu et al., 2011; Gul, Irshad, & Zaman, 2011). Although there are significant risks associated with commercial banks' lending, revenues such as fees, interest margins, and deposit balances, work on compensating bank's associated risk (Basu et al., 2011; Gul et al., 2011).

The policies of the central bank include the laws and regulations in force by the monetary authorities in the country, especially with regard to liquidity and lending ratios, as well as the level of

growth of economic activity in the country in general, and the level of growth in the industry in which the loan will be used in particular (Seguino, 2010; Djalilov & Piesse, 2016).

The central bank defines the deposit as "The amount of cash that a person delivers by any means of payment to another person, and who is obligated to return it upon request or according to the conditions agreed upon" (Central Bank of Jordan, 2017). It includes the number of funds available for borrowing (deposits/loans/capital) and the volume of deposits must not exceed a certain percentage according to the vision of the various departments and the announced financial policies in the country. Deposits also include the structuring of investment portfolios, the distribution of their profit ratios and their maturity dates, as well as the location of the investment activity and the sectors to which the economic activity belongs and what is the nature of the client's activity benefiting from those deposits in their final form as loans (Javaid, Anwar, Zaman, & Ghafoor, 2011).

Although ultimate authority for all lending activities is vested in the board of directors, the board of directors delegates the management of these responsibilities to a committee called loan officers. As for the lending authority, it's the amounts that an employee may lend to any obligated customer, and it includes all direct loans, unfunded obligations, overdrafts, commitments under letters of credit, and contingent liabilities (direct and indirect liabilities) (Altavilla, Boucinha, & Peydró, 2018).

Levels of decision-making are (according to type and amount of loan), and regardless of the level of decision-making, there must be a periodic report on all credit operations at all levels and submitted to various departments (Anbar & Alper, 2011). This is what is known as the credit process, and it is defined as "the process of paying an amount of money from the bank to the customer in exchange for the right to recover it with its interest and any other dues on it, and any guarantee or pledge issued by the bank" (Central Bank of Jordan, 2017).

Diversity must also be taken into account in granting loans with respect to different economic activities, as well as taking into consideration the length of loan time, and maximum limit for lending (Francis, 2013). Banks set their lending policy according to the type of activity permitted as well as the number of funds available for lending, and the period of approval for granting the loan, which is the period that the bank takes to verify in matching the bank's policies approved within the internal policies and the supporting documents submitted by the customer (Islam, Sarker, Rahman, Sultana, & Prodhan, 2017).

The time for the approval to grant the loan is calculated from the moment the customer submits the loan request until the initial approval is given. The time period for loan approval varies according to the client's submission of loan requests correctly. Loan officers classify customers into many aspects such as customer's age, customer's job title, amount of loan, customer's monthly income, client number of working years (Central Bank of Jordan, 2017).

The loan implementation period is divided into three parts according to the time period (Khrawish, 2011):

1. *Short-term loans:* these are the loans that the client needs to pay off his simple obligations, as the repayment period of these loans reaches a period of time less than a fiscal year and the purpose of these loans is for financial liquidity, purchase of goods, or payment of accumulated bills.

2. *Medium-term loans:* client's repayment period in such loans ranges from one to five years. The purpose of these loans is to buy useable assets such as cars, home furniture, or personal office equipment.

3. *Long-term loans:* these are the loans that the client needs to buy things at high prices, where the repayment period reaches ten years and more, and the purpose of these loans is to buy real estate such as a house, land, etc.

A guarantee is a tool for proving a bank's right to retrieve the money that is lent to its clients in a legal way, and in case of non-compliance with payment within the specified time of the loan (Chen, 2006). In other words, it is one of the means that enables clients to obtain loans from financial institutions.

The aim of guarantees is to ensure repayment of the loan from the procedural point of view in line with prevailing laws and regulations, in addition to the possibility of collecting it on date or dates agreed upon, through a suitable study of the borrower's reputation in the industry. While obtaining adequate guarantees, the loan officer must carefully study the quality of guarantees presented by the borrower and ensuring the actual ownership of it and also ensuring that they are placed at hands of the bank before granting the loan without any legal impediments (Kim, Song, & Zhang, 2011).

The interest rate generally affects various aspects of financial and investment decisions. It also affects an individual's consumption patterns. Interest rate is the prevailing factor that is considered as the front line option in financial decisions, such as saving, investing, and depositing of money (Sørensen & Werner, 2006).

In a time of low-interest rates, individuals tend to spend their money to buy goods such as cars and real estate or invest them in operating projects that produce income for them, instead of depositing them in banks and obtaining a small, useless interest rate (Ben Naceur & Goaied, 2008). On the contrary, in times of high-interest rates, individuals, including investors, resort to deposit their money into banks to take advantage of high-interest rates, represented by deposits, certificates of deposit, and government bonds, which constitute a guaranteed and safe profit. In addition to the risk of investing in high-risk projects, and in light of high borrowing and investment costs, this leads to the reluctance of investors to borrow from banks to expand their projects, or open new projects (Delis & Kouretas, 2011).

The role of central banks in such situations is to determine the general framework or direction of the interest rate on government bonds and deposits, and accordingly, the various commercial banks follow these guidelines and abide by them in their dealings with their customers in lending, borrowing, and deposits. The interest rate on the loan is determined in line with the prevailing interest rate plus the risk rate (which covers the risks of the activity in which the loan will be used, the risks

derived from the study of the borrower and the possibility of non-collection and other previously mentioned risks) (Sørensen & Werner, 2006; Delis & Kouretas, 2011; Alshatti, 2015; Kayode, Obamuyi, Ayodele Owoputi, & Ademola Adeyefa, 2015). Bhattarai (2015) assures that profitability and hypothetical risks have great importance and a positive impact on the lending rate.

Control means here self-censorship, and it is related to the restrictions set by the bank's management to limit or expand to direct its funds to a specific type of activity in order to protect the funds of depositors and shareholders (Kim et al., 2011).

As for follow-up, it means the need to follow up loans to discover any potential difficulties in repayment and to take the appropriate action to ensure repayment in a timely manner (Anbar & Alper, 2011).

The main objectives of banking control.
Although the controlling systems of banks differ between countries, there is a general common line between these objectives:

• Maintaining the stability of the financial and banking system, which includes avoiding the risks of bankruptcy by controlling the practices of banking institutions and ensuring that they are not faltering in order to protect both the banking and financial system. It also includes establishing rules and instructions for managing a bank's assets and liabilities, whether it for domestic or international operations (Menicucci & Paolucci, 2016).

• Ensuring the efficiency of the banking system's work, and this is done by examining bank's accounts and documents to ensure the quality of assets and avoiding exposure to risks, assessing internal operations of banks, analyzing main financial elements and compliance of banks' operations with general frameworks of established laws, and assessing the financial position of banks to ensure their ability to fulfill their obligations, with the aim of preserving the financing of some economic activities, that private sectors cannot fully finance (Poudel, 2018).

• Deposit protection, this is done through the intervention of controlling authorities to impose their control and take appropriate measures to avoid the potential risks that the funds may be exposed to, especially at the time that credit institutions fail to implement their obligations towards depositors (Sørensen & Werner, 2006).

The concept of profitability is broad in that it expresses the organization's method of investing its available resources based on standards and provisions related to its objectives in pursuit of its efficiency, effectiveness, and ensuring its continuity. The contribution of enterprise activities to creating value and effectiveness in their use of available financial resources through achieving goals at the lowest costs (Hofstrand, 2009; Malik, 2011).

Profitability is defined as "the ability and efficiency of the facility to manage its activities in all its administrative, production, financial and informational aspects, within a specific period of time, and its skills in converting inputs into outputs within the required quality and quantity". Profitability is also considered a measure for determining the extent of the organization's success, and losing the required level of its performance

increases risks, and threatens its existence (Delis & Kouretas, 2011; Alshatti, 2015; Kayode et al., 2015).

From another point of view, as seen by Öner Kaya (2015), the profitability assessment is a process of reviewing what has been achieved depending on the work's standards.

Profitability is one of the important pillars of the organization that helps in its continuity and growth. Profitability plays an important role in measuring the performance of firms and their efficiency in using its resources. Profitability also helps organizations in formulating their future plans and activities (Chea, 2011). It also encourages a certain level of performance to keep in the pace of its expected targets and goals. It has become clear that the economic growth in the country and the preservation of the centers of its economic institutions depends to a large extent on the efficiency of its profitability in line with the increasing and endless requirements facing economic institutions at the internal and external levels (Musah, 2017).

Profitability provides an accurate and reliable integrated information system to compare actual performance with the expected one through specific indicators. It is also considered a tool for personal judgment through recognized moral and ethical values and behaviors. It is also considered a tool for objective judgment on the efficiency of organizations, and the level of their activities, and their effectiveness in achieving their goals from a measurable material aspect (Seguino, 2010; Chea, 2011; Musah, 2017).

Profitability is usually evaluated by relying on the financial reports that are published. By relying on data included in its reports, users of these reports apply a set of financial indicators and ratios in order to judge the correctness of the financial position of the facility, and these ratios may take several forms, including liquidity ratios, activity ratios, market ratios, solvency ratios and profitability ratios (Chea, 2011; Pradhan & Gautam, 2019; Musah, 2017).

There is no doubt that organizations face problems and difficulties that may hinder its profitability during its normal activity. The reasons behind such problems become the task of its management, which in turn will work correcting them. The goal of profitability is to diagnose the financial situations that occur and do its best to solve them (Musah, 2017).

There internal and external factors affecting profitability. Internal factors are factors that the organization can control the degree of their impact on profitability, such as control processes over costs and expenses, the efficiency of use of financial resources, and the cost of obtaining funds. As for the external factors, they are outside the control of the organization, and these factors are a result of the external changes that revolve around the environment, and it's beyond the entity's control even though its future results can be expected, perhaps the most prominent examples of external factors are scientific and technological changes that may occur in the binding financial or economic laws and policies of the state (Javaid et al., 2011; Khrawish, 2011).

Legal factors also affect the performance of profitability. Any change in laws or legislation in a country's policy or a change in its development

investment plan must be reflected later or sooner on its society and its organizations. The tremendous impact will appear on the outcome of the business field, so the lack of legal stability in the state leads to instability, which greatly increases the risks of implementing strategies. It also places management decisions at high risks that could lead to bankruptcy and failure (Basu et al., 2011; Altavilla et al., 2018).

Flamini, Schumacher, and McDonald (2009), Martani, Mulyono, and Khairurizka (2009) found out that, the profitability of banks is closely related to the size of banks and the diversity of the activities of these banks and ownership, moreover, bank's returns are affected by economic variables, especially changes in the overall economy. Munyiri (2010) found out that a friendly lending policy that suits customer needs and fills its satisfaction, maximize demand, and increases profitability.

Abate and Mesfin (2019) found out that, capital adequacy, financial leverage, liquidity, and ownership have a positive relationship with the profitability of banks, on the other hand, the inflation and interest rate have a statistically significant negative relationship.

3. RESEARCH METHODOLOGY

This study is considered an exploratory study, and this study relies on the descriptive and analytical approach to describe and review the theoretical framework of the lending policy in commercial banks operating in Jordan. In order to achieve the objectives of the study, a structured questionnaire was prepared and used to collect the related information needed. The study used the Likert Scale to answer the items measuring the study answers by its respondents.

In Jordan, there are only 13 commercial banks, which are all privately owned banks. The study population consisted of all the commercial banks operating in Jordan, numbering 13 banks during the period 2016-2020, and the following Table 1 illustrates the commercial banks operating in Jordan included in the study.

The next table (Table 2) represents the distribution of its questionnaire to study population, consisting of credit employees departments (credit officers), where 10 questionnaires were distributed equally to each bank of the study population, a total of 130 questionnaires were distributed, and 99 were recovered. Out of the distributed questionnaires, 98 were valid for analysis.

Table 1. Commercial banks operating in Jordan

No.	Bank's name
1	Arab Bank
2	The Housing Bank for Trade and Finance
3	Bank of Jordan
4	The National Bank of Jordan
5	Bank Al Etihad
6	Jordan Kuwait Bank
7	Jordan Commercial Bank
8	Arab Jordan Investment Bank
9	Jordan Capital Bank
10	Cairo Amman Bank
11	Societe Generale Bank Jordan
12	Arab Banking Corporation
13	The Investment Bank

Table 2. Study population

Details	No.
Questionnaires distributed	130
Retrieved questionnaires	99
Excluded questionnaires (not valid for analysis)	1
Questionnaires subject to analysis and testing	98
The percentage of questionnaires subject to analysis from the distributed	75.4%

In order to analyze the data, and to test its hypotheses, the researchers used various statistical methods, such as descriptive statistics measures (arithmetic mean, standard deviation, frequency and relative frequency). To describe the current study data, Cronbach's Alpha test was used to measure the validity of the questionnaire, the t-test for one sample, and the Pearson correlation test was also used to identify the extent of high correlation problems between the independent variables (Multicollinearity test), and finally multiple and simple linear regression were used to test the study hypotheses (Hair, Anderson, Tatham, & Black, 2010). This is done by using the Statistical Package Analysis for Social Sciences (SPSS v.20.).

The Cronbach's Alpha test was conducted to determine the internal statistical consistency of the paragraphs of the questionnaire, and thus their suitability to measure their variables, as the Cronbach's Alpha coefficient should exceed 60% to ensure their consistency and suitability (Hair et al., 2010). The test results are shown in Table 3 that all items (each in his field of research) were more than 60%, which indicates the suitability of the study's questionnaire in its representation of its variables.

Table 4 illustrates the results of the demographic variables of the study.

Table 3. Cronbach's Alpha test

Statement	Number of paragraphs	Cronbach's Alpha (%)
Central bank policies	5	73.2
The volume of deposits	6	77.8
Levels of decision-making in granting loans	6	73.4
Guarantees	6	60.8
Interest rate	4	68.7
Monitoring and follow-up	6	65.7
Profitability of banks	6	81.8
All paragraphs of the questionnaire	39	89.4

Table 4. Demographic variables

Variable	Group	Frequencies	Percentage (%)
Sex	Male	66	67.3
	Female	32	32.7
Total		*98*	*100*
Age	From 20 to 29 years	17	17.3
	From 30 years to 39 years	40	40.9
	From 40 years to 49 years	30	30.6
	More than 50 years	11	11.2
Total		*98*	*100*
Professional certificate	JCPA	1	1
	CPA	0	0
	CMA	2	2
	CFA	0	0
	None	95	97
Total		*98*	*100*
Scientific degree	Ph.D.	2	2.0
	Master	31	31.7
	Bachelor	63	64.3
	Diploma	2	2.0
Total		*98*	*100*
Experiences	Less than 3 years	11	11.2
	From 3 years to 6 years	21	21.5
	From 6 years to 9 years	31	31.6
	More than 9 years	35	35.7
Total		*98*	*100*

Table 4 shows that the majority of the study sample were holders of the "bachelor's" degree and then the "master's" holders with a percentage of 64.3%, 31.7% respectively and that a percentage (67.3%) of the respondents in the study sample having practical experience of six years or more, which indicate that the respondents possess the academic and practical ability to answer the study's questions. Also, 18.4% of the respondents were holders of professional certificates specialized in practical fields, which indicates the efficiency of these respondents and the degree of high specialized professional knowledge that they possess, which may enrich the objectivity of the results obtained from the current study. With a closer look at the age of the study sample respondents, it was noticed that the majority of the respondents were between the age of 30-49 years old, with a percentage of 71.5%, and that 67.3% were males, followed by females (32.7%).

The questionnaire included 5 questions that measure the variables of the Central Bank of Jordan's policies. These variables express the policies and regulations of the central bank. Table 5 shows the results of the descriptive statistical tests, in addition to results of one sample t-test.

Table 5. Variables of central bank

No.	Paragraph statement	Arithmetic mean	Standard deviation	T-value	Sig.
1	The bank takes into account the laws and regulations in force by the monetary authorities in the country, especially with regard to lending policies.	4.469	0.677	21.498	0.000
2	The bank takes into account the laws and regulations in force by the monetary authorities in the country, especially with regard to the quality of the loan.	4.490	0.579	25.483	0.000
3	The bank takes into account the laws and regulations in force by the monetary authorities in the country, especially with regard to liquidity ratios.	4.347	0.478	27.870	0.000
4	The bank takes into account the level of growth of the country's economic activity in general.	4.469	0.578	25.166	0.000
5	The bank takes into account the level of growth in the industry in which the loan will be used in particular.	4.408	0.671	20.775	0.000
Total		*4.437*	*0.418*	*34.067*	*0.000*

It is noted from Table 5 that the highest arithmetic mean (4.490) with a standard deviation (0.579) is for the fourth paragraph, especially with regard to the quality of the loan, while the lowest arithmetic mean was 4.408 with a standard deviation of 0.671 for the fifth paragraph, and the arithmetic mean for all paragraphs reached 4.437 with a standard deviation 0.418, which indicates that the majority of the respondents' answers were concentrated between two limits (agreeing to a very large extent and agreeing to a large extent) on the paragraphs of measuring the central bank's policies variable.

The t-test results showed that all the variables measures was significant (sig) 0.000, which indicates that there are no statistically significant deviations at the level of significance 0.01 between the answers of the respondents in the study sample.

To measure the variable of the volume of deposits, 6 paragraphs were designed, and it included issues related to the size of deposits (sources of financing) for commercial banks. Table 6 illustrates the results of the descriptive statistical tests and the one sample t-test.

Table 6. Variables of the volume of deposits

No.	Paragraph statement	Arithmetic mean	Standard deviation	T-value	Sig.
1	The amount of funds available for lending from deposits is determined according to the ratios determined by the Central Bank only.	4.020	0.626	16.148	0.000
2	The amount of funds available for lending from deposits is determined by capital adequacy ratios.	4.061	0.655	16.036	0.000
3	The size of the funds available for lending from deposits is determined according to the ratios determined by the board of directors.	4.000	0.574	17.236	0.000
4	The volume of funds available for lending from deposits is determined according to the ratios determined by the bank's management.	4.122	0.693	16.043	0.000
5	When lending, the bank takes into account the maturity dates of deposits and adheres to the lending ratios, including bank's regulations.	3.939	0.623	14.920	0.000
6	The amount of funds available for lending from deposits is determined according to the nature of the client's activity within the sector (industrial/commercial/agricultural).	4.224	0.584	20.763	0.000
Total		*4.061*	*0.432*	*24.336*	*0.000*

Table 6 shows that the sixth paragraph got the highest arithmetic mean of 4.224 with a standard deviation of 0.584 and that the fifth paragraph got the lowest arithmetic mean of 3.939 with a standard deviation of 0.623, and that the arithmetic mean coefficient for all combined paragraphs reached 4.061 with a standard deviation of 0.432, which may indicate that the majority of the respondents' answers have come close to agreeing to a large extent on the paragraphs of measuring the size of variable deposits. The results of the one sample t-test showed that the relative importance factor (sig) reached 0.000 for all items of the variable measurement, which indicates that there are no statistically significant deviations at the level of statistical significance 0.01 between the answers of the respondents while answering volume of deposits paragraphs.

The questionnaire included 6 items to measure variable levels of decision-making in granting loans. Table 7 illustrates the results of the descriptive statistical tests and the one sample t-test for these paragraphs.

Table 7. Variables of decision making in granting loans

No.	Paragraph statement	Arithmetic mean	Standard deviation	T-value	Sig.
1	The bank's board of directors delegates the management of lending responsibilities to specialized committees that carry out responsibilities for implementing the lending policy.	3.980	0.592	16.389	0.000
2	Loan approval decisions are taken as per the loan amount.	4.122	0.630	17.630	0.000
3	Loan approval decisions are made according to the type of loan.	4.061	0.514	20.437	0.000
4	The bank determines the maximum limit for lending according to the number of funds available for lending.	4.224	0.547	22.146	0.000
5	When making a lending decision, the bank takes into account the time period for approval of granting the loan.	4.122	0.482	23.056	0.000
6	When making a lending decision, the bank takes into account the time period for loan implementation.	4.184	0.563	20.831	0.000
Total		*4.116*	*0.365*	*30.272*	*0.000*

Table 7 shows that the highest arithmetic mean was for the fourth paragraph by 4.224 with a standard deviation of 0.547 and that the lowest arithmetic mean was for the first paragraph by 3.980 with a standard deviation of 0.592. The one sample t-test showed that the relative importance factor (sig) reached 0.000 for all the measured items, which indicates that there are no statistically significant deviations at a level of significance 0.01 between the respondents' answers to these paragraphs.

As for the Guarantee variable measures, the questionnaire also included 6 paragraphs. Table 8 illustrates the results of the descriptive statistical analysis and the one-sample t-test for these variables.

Table 8 illustrates that the highest arithmetic mean was for the fifth paragraph by 4.224 with a standard deviation of 0.419 and that the lowest arithmetic mean was 4.061 with a standard deviation of 0.426, and that for the third and fourth paragraphs, while the total arithmetic mean for all paragraphs reached 4.163 with a standard deviation of 0.423, which refers to close answers of the majority of the respondents. Also, the one sample t-test showed that the relative importance factor (sig) reached 0.000 for all relevant paragraphs, which indicates that there are no statistically significant deviations at a significance level of 0.01 between the answers of the respondents in the study sample while answering the paragraphs of the variables.

Table 9 illustrates the results of the descriptive statistical tests and the one sample t-test of the paragraphs related to the measurement of the interest rate variables, where 4 paragraphs were formulated to measure the interest rate variables in commercial banks.

Table 8. Variables of guarantees

No.	Paragraph statement	Arithmetic mean	Standard deviation	T-value	Sig.
1	When studying granting loans, the bank requires that guarantees be provided for those loans according to their type and market value.	4.061	0.426	24.640	0.000
2	The bank, before granting the loan, studies the experience, suitability, and reputation of the borrower.	4.224	0.419	28.903	0.000
3	When considering granting loans, the bank requests the availability of guarantees in excess of the value of the loan granted.	4.082	0.491	21.825	0.000
4	The bank makes sure that guarantees are placed at the disposal of the bank before the borrower gets the loan without any legal impediments.	4.061	0.426	24.640	0.000
5	The bank ensures that the total value of the market guarantees exceeds the total value of the loan offered and its interest.	4.249	0.419	28.903	0.000
6	The bank verifies that the loan is documented in the official departments after the completion of the official procedures.	4.082	0.491	21.825	0.000
	Total		*4.163*	*0.423*	*27.199*	*0.000*

Table 9. Variables of interest rate

No.	Paragraph statement	Arithmetic mean	Standard deviation	T-value	Sig.
1	The bank takes into account when determining the interest rate on the loan in line with the prevailing interest rate plus the risk rate.	4.224	0.651	18.631	0.000
2	The bank adjusts the interest rates on the loan granted without referring to the customer.	4.082	0.491	21.825	0.000
3	The bank does not adjust the interest rates on the granted loan until after referring to the customer.	4.122	0.523	21.247	0.000
4	The bank charges additional interest in the event of late payment on one of the installments of the loan granted without referring to the customer.	4.082	0.604	17.738	0.000
	Total		*4.107*	*0.390*	*28.106*	*0.000*

Table 9 shows that the arithmetic mean of overall answers for all paragraphs of the interest rate variable reached 4.107 with an overall standard deviation of 0.390 and that the highest arithmetic mean 4.224 with a standard deviation of 0.651 was related to the first paragraph. And that the lowest arithmetic mean 4.082 was for the second and fourth paragraphs, with a standard deviation of 0.491, 0.604, respectively. And that the coefficient of relative importance (sig) for the one-sample t-test has reached 0.000 for all the items of the variable measurement, which indicates that there are no statistically significant deviations at the level of significance 0.01 between the answers of the respondents in the study sample when answering these paragraphs.

The study questionnaire included 6 items to measure the control and follow-up variables. Table 10 illustrates the results of the descriptive statistical tests and the one-sample t-test for the data of these paragraphs.

Table 10. Variables of guarantees

No.	Paragraph statement	Arithmetic mean	Standard deviation	T-value	Sig.
1	The bank has a supervisory system that limits manipulation and works to protect the funds of depositors and shareholders.	4.020	0.556	18.176	0.000
2	The supervision system contains rules and instructions for examining bank accounts and documents to avoid exposure to risks.	4.184	0.439	26.692	0.000
3	The control system contains rules and instructions for evaluating the internal operations of banks and analyzing the main financial elements in their financial statements.	4.163	0.512	22.509	0.000
4	The bank takes care to provide formal and regular communication between the observers and the bank's management.	4.061	0.426	24.640	0.000
5	The auditors have the necessary means to collect, review, and analyze financial and statistical reports and data from banks according to unified rules.	4.224	0.618	19.611	0.000
6	There is complete independence of internal control committees on bankers so that information can be obtained easily, whether it is related to internal examination or through external auditors.	4.000	0.574	17.236	0.000
	Total		*4.136*	*0.322*	*34896*	*0.000*

Table 10 shows that the highest arithmetic mean coefficient was 4.224 and it is associated with the third and fifth paragraphs, with a standard deviation of 0.466, 0.618, respectively, and that the lowest arithmetic mean coefficient 4.000 with a standard deviation of 0.574 and that was for the sixth paragraph. The overall mean of all paragraphs is 4.130 with a standard deviation of 0.322, which indicates that the majority of the respondents' answers were very close to each other. Also, the results of the one-sample t-test indicated that the level of relative importance (sig) reached 0.000, which indicates that there are no statistically significant deviations at a level of significance 0.01 between the answers of the respondents in the study sample while answering the variables paragraphs.

The study designed 6 paragraphs within the study questionnaire to measure the profitability variable of commercial banks. These paragraphs aim to measure the extent of an increase in the profitability indicators of commercial banks during the past five years. The following table (Table 11) illustrates the results of the statistical descriptive tests and the one-sample t-test for variable measurement data.

Table 11. The profitability of commercial banks

No.	Paragraph statement	Arithmetic mean	Standard deviation	T-value	Sig.
1	The rates of return on banking investments increased	4.061	0.589	17.841	0.000
2	Return on assets improved	3.959	0.536	17.725	0.000
3	The value of commercial banks' investments increased	4.163	0.550	20.922	0.000
4	Equity rates increased	3.898	0.711	12.510	0.000
5	Improved levels of cash inflows	4.041	0.731	14.095	0.000
6	The amount of provisions for losses decreased	3.980	0.592	16.389	0.000
	Total	*4.017*	*0.451*	*22.344*	*0.000*

Table 11 shows that the highest mean is 4.163 with a standard deviation of 0.550 for the third paragraph, and that is followed by the first paragraph with an arithmetic mean of 4.061 with a standard deviation of 0.589, while the lowest arithmetic mean was 3.898 with a standard deviation of 0.711, for the fourth paragraph. The overall arithmetic mean for all the paragraphs reached 4.017 with a standard deviation of 0.451, which indicates that the majority of the respondents' answers were largely close to each other's. The results of the one-sample t-test indicated that the relative importance factor reached 0.000 for all the items of the variable measurement, which indicates that there are no significant statistical deviations at the level of significance 0.01 between the respondents' answers to the items measuring the variables of profitability.

H_0 *(null hypothesis): There is no statistically significant impact of lending policies on the profitability of commercial banks operating in Jordan.*

The present study aimed to test the impact of lending policies on the profitability of commercial banks operating in Jordan. The study tested the multiple linear regression test of the main hypothesis and the simple linear regression of the sub hypotheses as appropriate methods to achieve the goals of the study.

The study also tested the Pearson correlation to measure the number of correlations between the independent variables included in the study model to avoid the problems of a high correlation between them (Multicollinearity test), where the correlation coefficient between them should be less than *Beta* = 80%-90%. The study also used the variance inflation factor (VIF) test to identify the homogeneity of the independent variables, and thus the validity of the study model, as the VIF factor must be less than 5 – as a decision rule – and the tolerance factor should be more than 0.1 to make sure the homogeneity of the independent variables as it's considered one of the conditions for using the multiple linear regression test (Hair et al., 2010). The following table (Table 12) illustrates the results of the Pearson test for the relationship as well as the VIF and tolerance coefficients.

Table 12. Pearson test, VIF, and tolerance coefficients

Independent variables		Central bank policies	Deposits volume	Levels of decision making in granting loans	Guarantees	Interest rate	Control and follow-up	VIF	Tolerance
Central bank policies	Beta	1						1.248	0.801
	Sig.		1						
Deposits volume	Beta	0.399		1				2.220	0.451
	Sig.	0.000							
Levels of decision making in granting loans	Beta	0.170	0.602		1			1.955	0.512
	Sig.	0.094	0.000			1			
Guarantees	Beta	0.199	0.471	0.277			1	1.512	0.661
	Sig.	0.049	0.000	0.006					
Interest rate	Beta	0.248	0.277	0.202	0.455			1.499	0.667
	Sig.	0.014	0.006	0.046	0.000				
Control and follow-up	Beta	0.305	0.578	0.615	0.364	0.455		2.158	0.463
	Sig.	0.002	0.000	0.000	0.000	0.000			

Table 12 indicates that the correlation coefficients between the independent study variables (*Beta*) were less than the level 80%-90%, which indicates the absence of high correlation problems between the independent study variables, while there were significance correlations. between them, thus confirming that each of these independent variables complements each other as a complete

policy related to granting credit in commercial banks. Also, the VIF coefficients were less than 5, and the tolerance coefficient was more than 0.1 for all variables of the independent study, thus confirming the homogeneity of the independent variables under study, and thus the validity of the study model.

The main hypothesis is the following:

There is no statistically significant impact of lending policies on the profitability of commercial banks operating in Jordan.

4. RESEARCH RESULTS

Table 13 illustrates the results of the multiple linear regression test of the main hypothesis. The main hypothesis aims to figure out the impact of lending policies with their combined variables (central bank policies, deposits, levels of decision-making in granting loans, guarantees, interest rate, control, and follow-up) on the profitability of commercial banks operating in Jordan.

Table 13. Multiple linear regression test of the main hypothesis

Standardized coefficients – Beta (Relationship strength)	Unstandardized coefficients – Beta (Relationship strength)	Coefficient	Relative importance Sig.	Value of (f)	Adjusted explanatory ratio Adj. R^2	Explanatory ratio R^2	Relationship strength (R)
	0.180	*Constant*					
0.027	0.030	*Central bank policies*					
-0.047	-0.049	*Deposits volume*					
0.429	0.530	*Levels of decision making in granting loans*	0.753	0.567	0.539	19.886	0.000
-0.307	-0.326	*Guarantees*					
0.087	0.101	*Interest rate*					
0.461	0.645	*Control and follow-up*					

The results of the multiple linear regression test shown in Table 13 illustrate the explained ratio of the lending policies (*Adj. R^2*) by its combined variables (*central bank policies, deposits, levels of decision-making in granting loans, guarantees, interest rate, control and follow-up*). The variation of the profitability of commercial banks operating in Jordan reached 53.9%, which is a statistically acceptable interpretation ratio. The value of computed (f) amounted to 19.886 at the significance level – Sig – 0.000, which indicates the existence of a statistically significant effect at the level of ($\alpha \leq 0.01$) for lending policies on the profitability of commercial banks, reflecting a strongly positive relationship of 75.3%. Thus, it is possible to reach the acceptance of the alternative main hypothesis, *"There is a statistically significant impact of lending policies on the profitability of commercial banks operating in Jordan",* and reject the null hypothesis, which is attributed to the importance of credit decisions in commercial banks, where credit decisions are the main activity on which they depend. Commercial banks to achieve their returns, and credit policies are considered as the general framework that reflects the corporation's orientation towards granting credit to its customers for the purposes of achieving the desired returns in line with the strategic and administrative aspirations.

5. DISCUSSION

At the outset, this study looks to a closer look at the lending policy and its impact on the profitability of commercial banks operating in Jordan, as the study model includes six variables that branch out from the lending policies adopted by commercial banks, which are *central bank policies, the size of deposits, levels of decision-making in granting loans, guarantees, interest rate, control and follow-up.* The study also intended to represent the profitability of commercial banks, which was referred to by the dependent variable in the study model by identifying

the level of change in financial indicators that express the profitability of these banks during the past five years, such as the change in returns on banking investments, returns on assets, the value of banking investments and rates of return on stocks, cash flows and provisions for potential losses.

6. CONCLUSION

The study used appropriate statistical scientific methods to test the study hypotheses, and answer its questions, the study concluded that there are substantial statistically significant relationships between the independent variables that represent lending policies in commercial banks, which confirms that each of these variables may compensate each other for risk management purposes and maintaining efficient and effective lending policies. This result is consistent with the findings of Alali (2019), Ong'era (2016), and Munyiri (2010). There is also a statistically significant impact of lending policies (with their variables combined) on the profitability of commercial banks operating in Jordan, and that the lending (credit) policies adopted by commercial banks have explained 53.9% of their profitability, which reflect the importance of these policies in generating desired returns according to the strategic directions of the administration, as these policies contribute to ensuring the efficiency of the credit portfolio, thus improving the profitability of banks, and these results are consistent with the findings of many previous scientific studies (Poudel, 2018; Abate & Mesfin, 2019; Alali, 2019).

Nevertheless, the results indicated an impact of each of the variable of central bank policies, the volume of deposits, the levels of decision-making in granting loans, the interest rate, control and follow-up – separately – on the profitability of commercial banks in Jordan, while the levels of importance for them varied according to what each of them interprets. In the profitability of the

commercial banks that are the subject of the study, where supervision and follow-up ranked first in terms of interpretation (40.3%), and the levels of decision-making in granting loans ranked second (38.7%), and the volume of deposits ranked third (13.6%), and then the interest rate ranked fourth. (5.7%), followed by the central bank's policies in the fifth place (3.3%), and these results are consistent with the findings of many previous scientific studies such as Bhattarai (2015), Flamini et al. (2009).

Depending on the findings of the current study, the study recommends the following:

• Commercial banks should focus on creating efficient and effective lending policies to manage credit risks, and thus increasing their profits.

• The necessity to clearly distribute tasks, responsibilities and authorities within the credit policies, so that the different administrative levels grant the right to make high-quality credit decisions that enhance the speed of decision-making, and eventually increasing the customer's base and profits.

• Due care should be laid on customer's credit file through the use of modern technological tools, and artificial intelligence mechanisms.

• Continuous control and follow-up of customers in order to increase the rate of repayment for those loans and reduce the percentage of bad debts.

• Following up the updates of the regulations of the central bank's policies periodically, in order to be in line with the economic developments and changes that keep pace with the national and international environmental changes.

• Continuous development of credit policies for commercial banks to cope with changing economic changes, and maintaining diversification in the credit portfolio to reduce credit risk.

• The necessity to proceed further in studying the factors and characteristics that reduces credit risks in commercial banks.

Similar to any academic research paper, this study also suffers from certain limitations, and as such, the study findings should be evaluated in light of those limitations. However, these limitations also provide opportunities for further research in this area. This study is conducted in the Jordanian environment (Jordanian commercial banks), so caution should be exercised in generalizing the findings of this study. This study is examining the impact of the lending policies adopted by Jordanian commercial banks on its profitability, and the results of this research could be attributed to other factors that impact the profitability of the Jordanian commercial banks, so additional research should be done in this field.

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