THE ROLE OF COMMERCIAL BANKS IN FINANCING SMALL AND MEDIUM- ENTERPRISES IN THE HASHEMITE KINGDOM OF JORDAN

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Abstract
Given the importance of small and medium-sized enterprises to the national economy, specifically at the level of increasing employment rates and reducing unemployment, in addition to effectively contributing to the GDP, and the continuing role of the government in supporting such enterprises through finding various financing alternatives to boost the development in this sector so that it can have an effective role in the national economy, this study aims at identifying the role commercial banks in financing small and medium-sized enterprises through data indicating the gross funding amount and the financing amount allocated to small and medium enterprises published in the annual reports of three main banks that work with the small and medium enterprises sector regarding financing for the period between (2009-2018). Panel Data Analysis has been used to estimate regression coefficients. Analysis has showed a positive relationship between the change in time and the growth amount in the credit facilities provided to small and medium-sized enterprises, indicating the importance of such enterprises despite the fluctuations in the financing rates of these enterprises for the determined period.

Keywords: small and medium-sized enterprises, financing, commercial banks, GDP, unemployment, economic development.

1- Introduction
1.1 : The general framework of the study
Small and medium-sized enterprises represent the vast majority of the total number of enterprises in Jordan. They play a substantial and effective role in driving the national economy, leading to a significant economic growth through contributing to investment and increasing the production size as well as absorbing the increasing labor size, particularly national labor as a main factor to reduce unemployment levels and increase employment rates.

It can be stated that small and medium enterprises are the backbone of the national economy (Afana, Abu Obaid, 2004) where they help in increasing the GDP. With their expansion in the various Jordanian cities, small and medium-sized enterprises have contributed to the consolidation of a culture that enhances the setup of such enterprises, aiming at consecrating the idea of social national security and reducing labor mobility from remote regions to urban cities as these provide equitable distribution of economic activities in many cases, which reflects actively on the equitable distribution as well as rehabilitation of a workforce able to...
accomplish tasks in a technical, proper way, and consequently increases the productivity of the enterprises of all world economies.

Therefore, consideration has been given to small and medium enterprises due to their importance to the various world economies, whether these are developed economies which have realized that such enterprises provide the national economy with many essentials, or developing countries that have put great interest in such enterprises to achieve national reform and reduce the State’s role in investment, thus putting efforts in various initiatives that could finance the setup of such enterprises (Latha& Murthy, 2009). Due to the limited number of alternatives that could provide financial support to small and medium-sized enterprises, this study attempts to highlight the importance of financing these enterprises and investigates the role of commercial banks in financing small and medium-sized enterprises in the Hashemite Kingdom of Jordan, since the Jordanian economy faces many economic challenges due to global and regional conditions. In response, a lot of effort has been given to preserve the vitality of the economy in general, where many initiatives supported by the government were taken, the most prominent of which is the Jordanian attempts to guarantee loans.

1.2 Problem Statement
Small and medium-sized enterprises are of great importance to many developed or developing global economies since they represent the prime mover to many activities of large-scale enterprises. Therefore, the need to investigate the main obstacles facing these enterprises has arisen to achieve an effective economic development that will enhance economy and eliminate negative economic phenomena, namely the high level of unemployment that greatly affects the social level as well.

It is worth mentioning here the role of Jordanian commercial banks in finding ways to finance this vital economic activity, especially under conditions in which financial institutions place controls on granting loans due to the low level of guarantees provided by small and medium-sized enterprises. Consequently, a more clear answer and clarification of the role of commercial banks in financing and developing small and medium enterprises was needed.

1.3 Objectives of the Study
This study aims to cover a range of aspects, most notably:

(A) examining the reality of small and medium-sized enterprises in Jordan in terms of defining the concept of such enterprises as well as their legal character and human resources.

(B) defining the role of commercial banks in financing small and medium-sized enterprises.

(C) proposing innovative solutions that might help to address the problem of financing such projects, particularly in developing countries.

(D) seeking out the main reasons that entrepreneurs face in obtaining appropriate funding for their projects.

(E) proposing recommendations that may help in the development of the banking sector for the purposes of supporting small and medium-sized enterprises in Jordan.

1.4 Significance of the Study
State governments, particularly those in developing countries, have been interested in supporting small and medium-sized
enterprises for their vital and effective role in reducing levels of unemployment in various economies and mostly for their role in achieving sustainable development since they constitute the large part of the national economy components, and contribute to high rates of the gross domestic production as well as labor absorption. Therefore, great attention has been placed on these enterprises, particularly in decision-making circles in Jordan, to contribute to the economic development through their continuity and their role in increasing individuals’ income resources. Based on what has been mentioned, the significance of the study lies in the following:

(A) investigating the role of the commercial banking sector in financing SMEs.
(B) investigating the reasons behind the vulnerability of the banking sector in financing SMEs.
(C) identifying appropriate mechanisms related to the rehabilitation and development of the role of commercial banks in financing small and medium-sized enterprises.
(D) identifying appropriate funding methods to these enterprises.

1.5 Study Hypotheses
The study is based on the main hypothesis that the commercial banks operating in Jordan have a positive role in financing small and medium-sized enterprises.

1.6 Study Methodology
The descriptive analytical method is applied, where a study of the theoretical fundamentals and available literature is undertaken, mainly focusing on the aspects and modern methods of financing, to investigate its role in enhancing the financing scope over time for a number of banks operating in this domain, in addition to analysing the scheduled data and concentrating on the size of the total credit facilities, particularly the size of these facilities to small and medium-sized enterprises through following the (Panel Data Analysis) of the econometric Eviews model.

2. Theoretical framework of the study
This section consists of two main parts: the first addresses the theoretical framework defining small and medium-sized enterprises and their financing, while the second examines the reality of small and medium-sized enterprises in Jordan.

2.1 Definition of small and medium-sized enterprises
In the Arab countries, definitions of SMEs vary because there is no agreement on specific criteria for defining the concept. However, these countries adopt a definition for such enterprises based on a set of standards although these standards may not be available in whole for such a definition to be considered. The most prominent of these criteria are the number of workers, capital and annual sales. It should be noted that Jordan adopts two main criteria in its definition of SMEs, namely the number of laborers and size of annual sales.

The Jordanian Ministry of Trade and Industry defines SMEs on the basis of both above mentioned criteria, namely the number of laborers and size of annual sales.

The Jordanian Ministry of Trade and Industry defines SMEs on the basis of both above mentioned criteria, namely the number of laborers and size of annual sales, where a common definition to differentiate between micro, small and medium-sized industries has been developed. (Bulletin of the Jordanian Ministry of Trade and Industry, September 19, 2010). Table (1) shows the difference
among Arab countries in their observance of the criteria used to define small and medium-sized enterprises. Table-1. Definition of SMEs in the Arab countries according to the criteria used

<table>
<thead>
<tr>
<th>Country</th>
<th>Enterprise classification Standard</th>
<th>medium-sized laborers</th>
<th>small laborers</th>
<th>micro laborers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jordan</strong></td>
<td>Number of laborers</td>
<td>(21-100) laborers</td>
<td>(5-20) laborers</td>
<td>Less than (5) laborers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1-3) million dinars</td>
<td>(100) thousand-dinars</td>
<td>Less than (100) thousand dinars</td>
</tr>
<tr>
<td><strong>Bahrain</strong></td>
<td>Number of laborers</td>
<td>(51-100) laborers</td>
<td>(6-50) laborers</td>
<td>up to (5) laborers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1-3) million dinars</td>
<td>(50) thousand-dinars</td>
<td>from (1)-(50) thousand dinars</td>
</tr>
<tr>
<td><strong>Saudi Arabia</strong></td>
<td>Number of laborers</td>
<td>(50-500) laborers</td>
<td>(6-49) laborers</td>
<td>1-5 laborers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(41-200) million rials</td>
<td>(3-40) million rials</td>
<td>up to 3 million rials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(10-19) laborers</td>
<td>(5-9) laborers</td>
<td>(1-4) laborers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200-500 thousand dollars</td>
<td>20-200 thousand dollars</td>
<td>up to 20 thousand dollars</td>
</tr>
<tr>
<td></td>
<td></td>
<td>more than (100) thousand dollars</td>
<td>(5-50) thousand dollars</td>
<td>up to (5) thousand dollars</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(50-100) laborers</td>
<td>(10-50) laborers</td>
<td>(1-9) laborers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5-25) million liras</td>
<td>500 thousand- 5 million liras</td>
<td>not exceeding (500) thousand liras</td>
</tr>
</tbody>
</table>

Source: Arab Monetary Fund (2019), Results of a questionnaire on the promotion of small and medium-sized enterprises in the Arab states.

2.2 Importance of small and medium-sized enterprises

Small and medium-sized enterprises are of vital importance in the social and economic development, since they are highly dependable on manpower, thus providing employment opportunities for the unemployed. These enterprises are significantly found in many developed countries and contribute significantly to the GDP, and are considered the most balanced and equitable in income distribution among individuals. These enterprises’ contribution ratio varies in the GDP for the Arab states, ranging between (22% and 80%). Arab oil-importing countries of various economic structures have the
Holland, it reaches (30%), and (66%) in Germany Sardouk, 2013, p.11).

D- They contribute to achieving spatial development, being resilient in moving between different areas and regions, which helps to find producing communities in rural areas. (Abdullah, 2016, p.154).

2.3A conceptual introduction to financing small and medium-sized enterprises

Financing means the supply of funds whenever needed. Therefore, financing consists of three main components, namely an accurate allocation of the needed time for financing, searching for fund sources, and the risks involved. Based on this concept, the financing seeker is not only limited to companies but also individuals, governments and any person, physical or moral. (Hajj, 2010).

Whereas SMEs financing refers to providing financial services to people with low income or with no income at all, aiming at improving the standard of living of those loaners and their families, or ensuring some economic activities that will generate a stable income (Torre and Vento, 2006).

Financing such enterprises can face many risks, namely credit risks due to the inability of borrowers to assume their obligations towards the bank or pay their dues as agreed upon. Other risks are related to borrowers, including the eligibility of the borrower, credit reputation, the borrower’s social behaviour, financial position and estimated productivity. Risks may also be related to the enterprise internal conditions, such as the relevant sector, or external conditions, such as economic risks beyond the borrower’s capacity, as the highest ratio among these exceeding the average recorded at the level of developing countries which amounted to (40%) (Arab Monetary Fund, 2017, the advancement of micro, small and medium-sized enterprises in the Arab states, p. 12). There is a variation in the contribution of small and medium-sized enterprises in the GDP, and a variation in the contribution rates of these enterprises in the economic activities in the Arab countries. The services sector constitutes the highest rates reaching (60%), followed by the industrial sector with (28%). (International Finance Corporation, 2014, Micro, Small and medium-sized enterprises database). In the light of what has been mentioned previously, it is very appropriate to clarify the importance of these enterprises in the economies of world countries through a set of points as follows:

A- They represent about (90%) of the world's total number of companies and contribute to 46% of the world's gross domestic product (GDP). For example, they contribute to 85% and 51% respectively in Britain and the United States in 2007 (AbuNaji, 2014, p.28).

B- They are a means of reducing unemployment due to labour intensity. In the United States of America, they contribute to (75%) and (56%) respectively of employment rates. (National Planning Council, 2008)

C- They help in the export of goods and services which affect positively in the national income, balance of payments and increasing reserves of foreign exchange to face the economic development. (Salman, 2013, p. 70). In Italy, their share reaches (50%) and (40% - 46%) in Denmark and Switzerland, while in France, Norway and...
capital asset allocated, sets features with the consent of the lessee, where they receive the capital asset from the provider on the basis of the performance of a leasing value allocating every time period for using and employing the asset. This rental aspect has increased after making it possible for these enterprises to rent the asset for a series of future payments (Rghaib, 2005).

It is noted from the previously mentioned that the problem of financing is one of the main problems that face small and medium-sized enterprises, as mentioned in a study by the United Nations Organization for Industrial Development. In a study by the European Union on the main obstacles hindering the growth of small and medium-sized companies, it was found that accessing credit facilitation is the main obstacle facing these companies (World Bank, 2008). In Arab countries, two studies have found that accessing credit facilitation is the main and biggest obstacle facing small and medium-sized companies (Abu Al-Heija, 2007). Thus, the main constraints that face these enterprises regarding financing operations are as follows:

- The criteria and bank loan conditions are not convenient for the nature and requirements of such enterprises with regard to obtaining financing with easy terms (Abu Naji, 2014).

- Poor financing structures for small and medium-sized enterprises, resulting in banks' reluctance to financing (Barghouti, 2014).

- These enterprises do not have sufficient guarantees, which are reflected in the enterprises's ability to obtain financing (Abu Naji, 2014).

well as legal, social and political conditions. Moreover, there are risks arising from mistakes committed by banks, the economic feasibility, and risks regarding operating inefficiency. Despite the many risks involved in financing small and medium-sized enterprises, a number of methods shall be considered to mitigate such risks, namely, supporting business systems, reducing credit expansion, sharing risks with others, obtaining guarantees, insuring guarantees and insuring credit.

2.4 Sources and constraints of SMEs financing

2.4.1 These enterprises financing sources can be classified in two main sources:

A- Direct sources of financing: these include, first, domestic financing, consisting of the savings, wealth or undistributed profits of the owners of the enterprises. This source is often insufficient to sustain the enterprise, prompting the savings owners to avoid setting up enterprises (Haddad, 2006). Secondly, external financing found in borrowing from commercial and specialized banks, which is characterized by high costs and difficult terms due to the lender’s conviction regarding the enterprises inability to pay debts, since they don’t possess financial reserves and enough assets to face the needed guarantees (Alnusur, 2009).

B- Indirect sources of financing: these include bank guarantee programs (loan risk guarantee), where the terms set by commercial banks has led to the necessity of finding an alternative link between enterprises and banks to increase the chances of getting the necessary finance (Al-Barghouthi, 2014). Secondly, leasing financing in which the financer buys the
the latest estimates, whereas external financing reached a total of (170.2) million dinars. In terms of the number of such enterprises, there was a growth rate of 17% between (2011 and 2015), with (187645) in 2015 compared to (156728) in 2011. With regard to small and medium-sized enterprises, growth rates were higher, reaching (56%) in (2015) compared to (38%) in (2011). Moreover, the total sector distribution for micro, small and medium-sized enterprises, distributed as per the services and industrial sector, reached (26717) in the industrial sector in (2015) and (52038) in the services sector. (Arab Monetary Fund, 2019).

Jordan has a number of regulators of the SMEs sector, namely, the following (Arab Monetary Fund, 2019):

- The Central Bank of Jordan: it encourages banking and financial institutions to increase the financing granted and works as a soft loan mediator. Where the size of loans granted within the established financing system of the Central Bank of Jordan, and directed towards economic sectors with high added value, reached about (159.3) million dinars during (2018) distributed in (267) enterprises, contributing to providing (2700) job opportunity. (Central Bank of Jordan, Annual Report, 2018)

- The Jordanian Economic Enterprise Development Corporation, which develops enterprises through providing services, and technical and financial support.

- The Business Development Center: it provides effective development programs and services economic development enterprises in Jordan and the Middle East.

- Jordanian Loan Guarantee Corporation: it aims to encourage banks

- Lack of regularity of the accounting records in small and medium-sized enterprises, noting that banks depend on financial records and final regular accounts when granting credit (Hussein Samhan, 2015).

- High degree of risk due to the nature of the enterprise, which mostly depend on one person or one family in addition to the weakness in financial centres. (Hussein Samhan, 2015).

- These enterprises lack support points that may regulate and develop their business (Barghouti, 2014).

- Rising interest rates and the payment terms, particularly that the profit margin in the first years is too low to repay the loan installments and interest. (Hussein Samhan, 2015).

- Banks traditional financing methods do not conform with these enterprises, since these enterprises need long or medium-term financing, while this does not conform with the commercial bank criteria for granting financing, which prefers granting short-term loans (Hussein Samhan, 2015).

2.5 Overview of the reality of small and medium-sized enterprises in Jordan

These enterprises represent one of the most prominent pillars of Jordan's economy and the most important and largest number of existing enterprises reaching almost (90%), and contributing to about (40%) of the GDP as per current prices. Their contribution to operating in the formal sector reaches (40% - 60%), while also contributing to exports value and the total investments implemented with about (30%) .(Arab Monetary Fund, 2019). The domestic financing of these enterprises, specifically micro enterprises, reached (2.6) billion dinars according to
financing firms. In addition to co-financing which reached (199) million dinars. In addition to that, financing by small and medium-sized enterprises amounted to (170.2) million dinars (Arab Monetary Fund, 2019).

2.6 Credit facilities granted by licensed banks in Jordan for 2017-2018:
The total credit facilities balance granted by licensed banks increased from (24.74) billion dinars at the end of (2017) to (26.11) billion dinars at the end of (2018), an increase of (1371.3) with a percentage of (5.54%). As for the development of credit facilities as per the currency type, the facilities in Jordanian dinars amounted to (88.8%) of the total facilities at the end of (2018), compared to (89.2) in (2017), thus the relative significance of foreign currencies credit facilities reached (11.2%) of the total facilities by the end of (2018). In terms of credit facilities distribution as per the economic activity by the end of (2018), four economic sectors, namely the construction sector, general trade, public services and utilities and the industrial sector dominated the credit facilities. Table (2) illustrates this comparison (Jordanian Banking Association, fortieth Annual Report, 2018, pp. 33-35).

and financial institutions to increase the financing activity size of SMEs by providing guarantees for granted loans in addition to supporting exports. During 2018, the company provided guarantees for approximately 1860 loans with a nominal value of 110 million dinars. The number of secured loans existing at the end of 2018 reached (4601) loan with a guaranteed value amounted to (105.1) million dinars, compared to (4349) loan with a guaranteed value of (93) million dinars in (2017) (Jordanian Loan Guarantee Company, Annual Report, 2018).

- The National Bank for Financing SMEs: it aims to fight poverty and unemployment through providing financial loans to the owners of small and medium-sized enterprises, as the value of the loans provided for these enterprises in (2018) amounted to (49.3) million dinars (Central Bank of Jordan, Annual Report, 2018).

It is worth mentioning here that the domestic financing through banks and specialized financial corporations granted by regional and international financial corporations are the main sources of financing. The domestic financing for these enterprises reached (2.6) billion dinars by the end of (2017), of which (2.1) was bank financing and (227) million dinars financing granted by micro
<table>
<thead>
<tr>
<th>Change ratio</th>
<th>2018</th>
<th>2017</th>
<th>Economic activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relative importance</td>
<td>One million dinars.</td>
<td>Relative importance</td>
</tr>
<tr>
<td>-0.18%</td>
<td>1.29%</td>
<td>336.7</td>
<td>1.36%</td>
</tr>
<tr>
<td>39.38%</td>
<td>1.36%</td>
<td>355.7</td>
<td>1.03%</td>
</tr>
<tr>
<td>12.48%</td>
<td>11.74%</td>
<td>3064.2</td>
<td>11.01%</td>
</tr>
<tr>
<td>5.65%</td>
<td>17.12%</td>
<td>4469.9</td>
<td>17.10%</td>
</tr>
<tr>
<td>3.48%</td>
<td>26.16%</td>
<td>6830.4</td>
<td>26.68%</td>
</tr>
<tr>
<td>-7.2%</td>
<td>1.26%</td>
<td>328.8</td>
<td>1.43%</td>
</tr>
<tr>
<td>-4.45%</td>
<td>2.27%</td>
<td>592.1</td>
<td>2.51%</td>
</tr>
<tr>
<td>3.93%</td>
<td>14.76%</td>
<td>3852.9</td>
<td>14.99%</td>
</tr>
<tr>
<td>21.45%</td>
<td>2.94%</td>
<td>768.2</td>
<td>2.56%</td>
</tr>
<tr>
<td>4.45%</td>
<td>21.10%</td>
<td>5509.2</td>
<td>21.32%</td>
</tr>
<tr>
<td>5.54%</td>
<td>100%</td>
<td>26108.1</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Annual report of the Jordanian Banking Association, 2018.

3. Previous studies:
Different views on the importance of small and medium-sized enterprises have emerged in recent years, for this is of great importance to the various actors whether these are individuals representing their enterprises or financing parties, aiming always at boosting the economic activity to reduce unemployment levels and increase operating rates. Many studies have addressed relevant subjects, and mostly concluded that activating this sector in developing and developed countries is of great importance.

For example, Betal, and Ahmed(2011), investigates the role of private banks in financing small and medium-sized enterprises, while presenting on financing, its types and related risks. The study mainly concluded that banks have a role in financing these enterprises, This role ranges between setting up funds that finance these enterprises and setting up particular units inside banks to finance them. Amiqa et al. (2015) aimed at identifying the reality of small and medium-sized enterprises, ways of obtaining loans and facilities from commercial banks, as well as investigating the criteria for granting credit to small and medium-sized enterprises associated with financial corporations in the Libyan market. The study mainly concluded that the vulnerability of the credit circuit for most enterprises is due to their inability to provide the required guarantees from commercial banks, and their weakness in presenting the needed financial data upon which granting loans is based. Al-Ajlouni, (2016) aimed to test the impact of the financing granted by commercial banks to small and medium-sized enterprises on the profitability of such banks. The profitability of banks was measured in various ways and the study concluded that
on assets, return on property, ratio of tangible assets to total assets, liquidity, size, and business risk, and the ratio of monetary assets to current assets. The study concluded that the return on assets, return on property, and tangible assets to total assets have a significant impact on short-term and long-term financing decisions, whereas the size and flexibility variables have a significant impact on long-term financing decisions. Menike (2015) investigated the determinants of capital structure for small and medium-sized enterprises in Srilanka. A questionnaire was distributed to 300 small and medium-sized enterprises chosen randomly regarding size. In order to achieve the objectives of the study, the multiple regression analysis was used where the the capital structure represented the dependent variable, and it was measured by long-term debt, internal and external financing size, internal and external guarantees. While the independent variables were represented by the following independent variables: the company’s age, size, ownership structure, size of available information and type of sector. The study concluded that the company’s size, age and information availability level are the main determinants of the capital structure for the companies that formed the sample of the study. It also concluded that the sector type (industry) plays an important role in choosing the financing method. Companies specialised in metal and wood industries use internal financing resources, while textile industries tend to use external financing resources. Predkiewicz (2015) investigates the determinants of capital structure of SMEs using a database that comprised(12000) Polish companies. The dependent variable (the capital structure) was measured by the ratio of total debt to total assets, ratio of long-term debt to total assets, return on property, ratio of tangible assets to total assets, liquidity, size, and business risk, and the ratio of monetary assets to current assets. The study concluded that the return on assets, return on property, and tangible assets to total assets have a significant impact on short-term and long-term financing decisions, whereas the size and flexibility variables have a significant impact on long-term financing decisions. Saarani&Shahadan,(2013) investigates the determinants of capital structure for small and medium-sized enterprises in Malaysia, where SMEs are defined as those companies that have been established by the Malaysian government and organized by SME Corporation & Deloitte Malaysia since 1997 to take record of the the best 50 small and medium-sized enterprises in Malaysia depending on their performance and success prospects. In order to achieve the objectives of the study, the multiple regression analysis was used,where the the capital structure represented the dependent variable, while independent variables represented the following: company’s age, its size, ratio of tangible assets to total assets, liquidity, profitability, growth and taxes. The study concluded that the size of the company, the ratio of tangible assets to total assets, liquidity and profitability are primary determinants of capital structure of SMEs in Malaysia. While Cekrezi (2015) investigates the determinants of capital structure for small and medium-sized enterprises. The study sample comprised 69 Albanian companies.In order to achieve the objectives of the study, the multiple regression analysis was used where the capital structure was the dependent variable, and was measured by the ratio of long-term debt to total assets and the ratio of short-term debt to total assets. The independent variables were as follows: the rate of return
small and medium-sized enterprises. The activities of such banks in financing operations were evident in the annual data listed in their periodic reports. This activity is demonstrated through a table showing the amount of facilities provided during ten years, in addition to the relative importance of these facilities compared to the overall facilities. After clarifying the tables, the econometric analysis method is used for the three banks based on the (Analysis Panel Data) to show the nature of the relationship between time and the growth size of the loans rates granted to small and medium-sized enterprises.

### 3.1 Econometric analysis and results

The annual data published by the Jordanian Central Bank in the annual reports have been adopted, in addition to the annual reports of the (24) commercial banks operating in Jordan. The focus was given to three banks that are highly interested in small and medium-sized enterprises.

<table>
<thead>
<tr>
<th>Year</th>
<th>Arab Bank</th>
<th>Housing Bank</th>
<th>Bank of Jordan</th>
<th>Total small and medium-sized credit facilities</th>
<th>Total credit facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>6.44%</td>
<td>11.06%</td>
<td>12.21%</td>
<td>678</td>
<td>275.726</td>
</tr>
<tr>
<td>2010</td>
<td>6.62%</td>
<td>10.20%</td>
<td>13.17%</td>
<td>707.5</td>
<td>268.15</td>
</tr>
<tr>
<td>2011</td>
<td>6.65%</td>
<td>13.07%</td>
<td>14.91%</td>
<td>714</td>
<td>355.504</td>
</tr>
<tr>
<td>2012</td>
<td>6.42%</td>
<td>9.66%</td>
<td>13.38%</td>
<td>696</td>
<td>284</td>
</tr>
<tr>
<td>2013</td>
<td>7.46%</td>
<td>9.61%</td>
<td>10.94%</td>
<td>849</td>
<td>286</td>
</tr>
<tr>
<td>2014</td>
<td>7.51%</td>
<td>9.47%</td>
<td>10.95%</td>
<td>897</td>
<td>282</td>
</tr>
<tr>
<td>2015</td>
<td>7.66%</td>
<td>7.68%</td>
<td>10.35%</td>
<td>931</td>
<td>290</td>
</tr>
<tr>
<td>2016</td>
<td>8.62%</td>
<td>8.07%</td>
<td>11.40%</td>
<td>1050</td>
<td>348</td>
</tr>
<tr>
<td>2017</td>
<td>7.17%</td>
<td>9.80%</td>
<td>15.64%</td>
<td>810.21</td>
<td>440</td>
</tr>
<tr>
<td>2018</td>
<td>7.41%</td>
<td>8.90%</td>
<td>16.41%</td>
<td>902</td>
<td>438</td>
</tr>
</tbody>
</table>
The table above clearly shows the relative significance of financing small and medium-sized enterprises, thus making clear the fluctuation amount of this type of financing. This fluctuation is due to the economic conditions in Jordan during the last ten years.

Nevertheless, the financing activity of small and medium-sized enterprises continued through time. The econometric analysis method of the financing data during the ten years can be illustrated by the econometric analysis method based on (Data Panel) as shown in the following Table 4.

**Table-4. Econometric analysis results " Panel Data"

Dependent Variable: LOG

(SME)

Method: Panel EGLS (Cross-section random effects)

Date: 02/13/20 Time: 09:41

Sample: 1 40

Periods included: 10

Cross-sections included: 3

Total panel (balanced) observations: 30

Swamy and Arora estimator of component variances

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>19.35859</td>
<td>0.491649</td>
<td>39.37484</td>
<td>0.0000</td>
</tr>
<tr>
<td>T</td>
<td>0.051749</td>
<td>0.0099936</td>
<td>5.208300</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Effects Specification

<table>
<thead>
<tr>
<th>S.D.</th>
<th>Rho</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>0.844839</td>
</tr>
<tr>
<td>Idiosyncratic random</td>
<td>0.156313</td>
</tr>
</tbody>
</table>

Weighted Statistics

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.492076</td>
<td>Mean dependent var 1.147338</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.473936</td>
<td>S.D. dependen var 0.215514</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.156313</td>
<td>Sum squared resid 0.684144</td>
</tr>
<tr>
<td>F-statistic</td>
<td>27.12639</td>
<td>Durbin-Watson stat 1.081220</td>
</tr>
<tr>
<td>Prob (F-statistic)</td>
<td>0.000016</td>
<td></td>
</tr>
</tbody>
</table>

Unweighted Statistics

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.042427</td>
<td>Mean dependent var 19.64321</td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>14.95921</td>
<td>Durbin-Watson stat 0.049449</td>
</tr>
</tbody>
</table>

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Using the econometric analysis method for the data relevant to time and size of credit facilities for small and medium-sized enterprises, a positive relation is noted between time and the change in the credit facilities size. If the amount of one year increases, an increase in the credit facilities size is noted by (5.2%), showing that the growth rate in these facilities, specifically, and in this important sector in economies for the analysed period reaches (5.2%).

4. Study results and recommendations

4.1 Study results:
1. The study shows the important role of commercial banks in financing operations. This is clearly showed in Table 3 listed in this study.
2. Existing obstacles do not allow to obtain appropriate financing such as the enterprise`s inability to provide adequate guarantees, and these enterprises lack accounting records, as well as a clear database for their activities.
3. The study shows the role of the government in supporting the financing of these enterprises through setting up loan guarantors such as the Jordan Loan Guarantee Corporation.
4. The analysis shows the continued flow of funding to SMEs but still in modest rates compared to the importance of these enterprises in the national economy.

4.2 Study recommendations:
1. Encouraging banks to increase the SMEs sector financing size, due to the importance of such sector in the recruitment process and GDP increase.
2. Encouraging small-scale entrepreneurs to pursue the scientific basis of their enterprise management, thus making the financing process more flexible due to related legal obligations.
3. Guiding those involved in providing thorough and more accurate data on SME activity and preparation so that the process of examining the parties` priorities becomes clearer –
4. Increasing the level of partnership between commercial banks and corporations supporting small and medium-sized enterprises through guarantees provided by these corporations to commercial banks.
5. Benefiting from the experience of other countries in this field, particularly those that have had significant success rates for such kinds of enterprises.
6. Encouraging domestic production so that it can confront competing products to ensure adequate financial growth in Jordan because of these enterprises’ great importance and the need to assist these in meeting their financial obligations to financing banks.

References:


8) Central Bank of Jordan, annual reports 2008-2018

9) Jordanian Loan Guarantee, annual report, 2018


26) Al-Ajlouni, (2016). The impact of SME financing on the performance of Jordanian banks, a working paper submitted to the conference of the Faculty of Economics and Administrative Sciences at Yarmouk University and the Arab Organization for Administrative Development entitled (contemporary trends in the management and financing of small and medium projects) to be held during the period 3-5 / 5/2016 in the campus Yarmouk University.