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The Impact of Small and Medium Enterprises on Gross Domestic Product and Unemployment: Evidence from Jordan 2009-2018

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ABSTRACT

The study aimed to investigate the impact of small and medium enterprises (SMEs) funding on, gross domestic product (GDP) and unemployment, as well as the amount of funding provided by the specialized institutions, and to identify the obstacles that these projects face in obtaining funding. The study population included the SMEs institutions in Jordan between the years 2009 and 2018. The study sample was limited to the Development and Employment Fund in Jordan as one of the most important SMEs funding institutions. Analytical and descriptive method was used to test the hypotheses, the simple regression model used to test the hypotheses of the study through the statistical model (SPSS). The most important finding of this study was the statistically significant impact of financing the SMEs on GDP and unemployment, the study model was able to show 95% of changes in economic development. The study recommended facilitating the provision of financing for SMEs and training the workers in these projects to improve their skills in managing their projects and conducting the appropriate financial analysis for the continuous evaluation of these projects to have positive effects on economic development. The researcher also recommends more analytical studies to reach more accurate results.

Keywords: Jordan, Small and Medium Enterprises, Funding, Gross Domestic Product, Unemployment, Development, Financing

JEL Classifications: F63, E24, G23

1. INTRODUCTION

The small and medium enterprises (SMEs) is one of the most important sources of economic development in the world because of the capacity of these enterprises to raise their productive capacity in addressing the problems of poverty and unemployment. Therefore, many countries have taken great care of these projects and provided them with assistance in various ways and in accordance with the available means. For example, SMEs account almost 90% of the world's enterprises and employ 50%-60% of the world's workforce, demonstrating their ability and efficiency to address the major problems facing different economies.

In Jordan, the increasing attention - both formal and private - in small projects, because in addition to their large capacity of labor, they contribute to economic growth and constitute a field for developing managerial, technical, production and marketing skills.

SMEs in Jordan faced many problems that hindered their growth. The most prominent problem is the access to finance, because financing plays an important role in meeting the needs of small enterprises. In particular, the ratio of credit and financing from banks to small businesses remain small compared to the total bank credit granted, so the small enterprise sector is in need of additional sources of funding.

The importance of this study come from the importance of providing financing services for SMEs and the important for the following reasons:

1. The importance of funding economic projects in general
2. The importance of funding SMEs as a type of financing
3. The importance of funding SMEs in driving economic development
4. The importance of funding SMEs in contribution to economic growth and increased gross domestic product (GDP)

5. The importance of funding SMEs for effective role in creating new job opportunities and its contribution to combating poverty and unemployment.

Objectives:

1. Identify donors of funding SMEs in Jordan
2. Understand the concept and characteristics of funding SMEs in Jordan
3. To know of the impact of funding SMEs on Jordan's GDP
4. To know the impact of funding SMEs on unemployment rates in Jordan
5. Identify the obstacles that SMEs face in obtaining funding.

After conducting a quick survey of SMEs in Jordan and ways of obtaining financing for these projects and their impact on the Jordanian economy overall. No clarity was found in role played by funding SMEs in supporting these projects to play a leading role in achieving economic development. The study problem was limited to the following questions:

1. What is the concept of SMEs?
2. What are the sources of funding for SMEs?
3. Are there constraints on access to finance for SMEs?
4. Is the amount of funding granted by funding SMEs institutions sufficient for it?
5. Is there an impact of funding SMEs on GDP in Jordan?
6. Is there an impact of funding SMEs on unemployment rates in Jordan?

2. LITERATURE REVIEW

Several studies discussed the subject of microfinance, but different goals and results among these studies, and here are some of the most important studies that are relevant to the subject of the study:

A study of Haripriya and Thenmozhi (2016), aimed to analyze the economic impact of MFIs on India's GDP growth, it tested the economic impact of MFIs on GDP growth in India. Data is collected for analysis through primary and secondary sources. This paper concludes that individual economic growth directly affects the country's GDP growth rate. An article made by Okafor (2016) examined the impact of microfinance banks activities on employment generation in Nigeria. Annualized time series for twenty years covering the period 1993-2012. The result showed that microfinance banks activities had a significant positive impact on employment generation in Nigeria during the period of the study. Recommendations offered that Government should strategize an increase in microfinance deposit by even creating a dedicated fund in the CBN for easy assessment by the microfinance banks, and microfinance banks should constantly be reminded that they are banks for the poor and should not always insist on tangible collaterals before granting credit.

In a study for Ncanywa and Getye (2016) analyzed the relationship between micro-credit finance and unemployment using quarterly data covering the period from 1994 to 2014. The study utilized the vector error correction model to provide short run and long run dynamic effects of micro-credit finance on unemployment. The results indicated that micro-credit finance has a negative relationship

with unemployment. Therefore, it is recommended that microcredit finance can be used as a tool to reduce unemployment and boost economic growth. An article for Seidam and Al Namroti (2012) aimed to highlight the importance of the role of small enterprises in achieving economic development and reducing unemployment rates in Palestine by creating new job opportunities and generating income for the unemployed. And to find a standard model to clarify the variables that have an effect in reducing unemployment, the findings of the study is that the internal industrial and commercial projects contribute to reduce the unemployment rates with great doubt than the service projects, transport and construction. The study recommended the development of appropriate solutions to activate the role of financing SMEs to solve the problems of poverty and unemployment.

A study for Kaddoumi (2012) seeks to look at the importance of small enterprises, and to identify the most important constraints faced by small entrepreneurs in obtaining the required funding, and what are the most important impediments toward the financing of small projects. This is conducted through a field study on a sample of entrepreneurs, 568 questionnaires were analyzed, the study found Inadequate amount of funding by the microfinance institutions, as well as the rigid collaterals asked by financing institutions for loan approval. Moreover, the high-interest rates was one of the most important obstacles faced the study sample entrepreneurs. The recommendation was to provide the full amount of the required funding to ensure the success of the project and the payment of loan installments, and also recommended the need for commercial banks to establish a special fund for micro-financing at a low-interest rate.

3. METHODOLOGY

Descriptive and analytical approach used, based on the financial data published from JCB and Development and employment fund – Jordan during the period (2009-2018), in addition to the previous literature that discussed the subject of the study. As well as statistical analysis to analyze the data collected by using the (SPSS) to test the model of the study and hypotheses.

The Study Society was the SMEs in Jordan during the period 2009-2018. The study sample was limited to SMEs that received funding from the Development and Employment Fund - Jordan during the period 2009-2018, because it is one of the largest institutions dealing with the financing of SMEs in Jordan.

3.1. Hyptheses

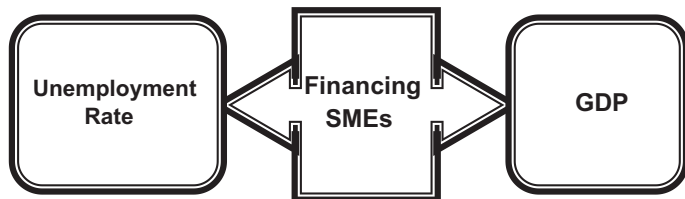
The hypotheses of the study stems from the problem and the study questions as follows:

- H₁: There is no statistically significant impact of funding SMEs on Jordan's GDP
- H₂: There is no statistically significant impact of the funding SMEs on unemployment rates in Jordan.

3.1.1. Model

Figure 1 shows the study Descriptive Model, which includes the dependent variable; financing small and medium enterprises, and the independent factors, which are unemployment and the gross domestic product.

Figure 1: Descriptive model



Source: Prepared by the researchers 2019

$$GDP = a + b_1 * F \text{ SMEs} + e \tag{1}$$

$$U.A. = a + b_1 * F \text{ SMEs} + e \tag{2}$$

GDP: General domestic product

F SMEs: Funding SMEs

U.A: Unemployment average

a: The equation fixed

e: Residual.

3.2. Study Variables

In this part of study we try to clarify some of the important concepts of the study as follows:

SMEs: The project is a legal entity that is created to achieve profits, the purpose of setting up most projects is to create a sustainable enterprise that will generate regular profits and grow continuously (Central Bank of Jordan, 2019).

$$\text{Sales} - \text{Expense} = \text{Profit} \tag{3}$$

The concept of SMEs enterprises: The concept of SMEs carries a number of projects that can fall under them, which may vary in their characteristics. This has caused a great deal of controversy among those interested in small projects, and because of different concepts among developing countries, developed countries and different industries according to the sector in which they work. Therefore, this concept is subject to many considerations and criteria, Such as labor, capital, value added, functional characteristics, management type, specialization, production methods or market trends (Al-Mubarek and Al-Shammari, 2006).

The size of the projects varies from major to infinitesimal and each has its own opportunities and challenges. Institutions SMEs are usually informal and have sales volume <100 thousand dinars. Their work is often done from home and sometimes the owner is the only employee in the project.

In Jordan, SMEs are defined as projects that employ between 5 and 20 employees and total assets or sales volume of <1 million JD per year (Small and Medium Enterprises Guide, 2017).

The importance of SMEs: Small enterprises in developing countries play an important role in reducing the problem of unemployment, particularly in rural areas, since large companies and industrial enterprises that depend on urban areas have failed to play a distinctive role in tackling the problem of unemployment. Small enterprises encourage young businessmen and investors

to integrate into the development work. It also meets an urgent need in developing countries, which makes it a starting point for more advanced projects and contributes to high productivity. It contributes about 46% to the world GDP, (Alkaddoumi, 2012).

SMEs in Jordan represent more than 90% of all establishments operating in different economic sectors. They absorb about 60% of the labor force and contribute approximately 50% of the GDP.

It is noteworthy that the percentage of small and medium-sized enterprises is 98% of the size of projects in Jordan and employs about 33% of the total workforce (Al-Khasib, 2019).

SMEs are considered an essential source of increasing production capacity and contribute effectively to tackling the problems of poverty and unemployment. Many countries, including Jordan, have given increasing attention to this type of project. They are working to integrate and harmonize the general structures of industrial development because they use simple production methods. These projects also attract small savings and are characterized as high capital turnover, making them the nucleus of large projects (CGAB, 2018).

Funding (SMEs): It is a type of funding that is based on the principle of providing financial services to low-income people to help them engage in productive activities, thus finding a way out of financial distress and appearing in society as productive and effective agents. According to the CGAP website, 2019; it is a type of financing that is based on the principle of providing financial services to low-income people to help them engage in productive activities, thus finding a way out of financial distress and appearing in society as productive and effective agents.

The concept of microfinance or microcredit began in 1970 when social activists discussed the issue of small amounts of capital in the short term (small loans for these families), which proved successful and opened the door to this type of financial services to large numbers of customers in a sustainable manner.

Over the past few decades, it has become clear to all that low-income people need a full range of financial services that cannot be provided by a regular personal loan. The term “microfinance” is now a reference and refers to a wide range of financial services tailored to the needs of this category, (CGAP, 2018).

According to ACCION International, a leading non-profit microcredit company, SMEs is defined as “banking and/or financial services targeted at low- and middle-income businesses or households, including credit.”

Given the international scope, SMEs funding support enables economically disadvantaged individuals to access the small-scale capital they need to start a business that can generate income. Institutions offering SMEs funding or microcredit are known as MFIs or MFIs. These providers can be non-profit organizations but also commercial banks or other financial institutions (grantspace.org, 2019).

SMEs in the Hashemite Kingdom of Jordan represent about 99.6% of the total economic projects operating in various economic sectors. Micro-enterprises constitute 91.5% of the total of these projects. About 80% of these projects are commercial and service projects, about 15% are industrial projects, and 5% are in the agricultural sector (The Development and Employment Fund, Jordan, 2018).

Estimates in some studies indicate that the SMEs sector contributes to:

1. Improving GDP
2. Creating jobs in the private sector
3. Increase industrial and agricultural exports
4. Support the public budget and the banking system
5. Enhancing food security and improving many indicators of social development.

Statistics for the financing of SMEs by sector and by governorates in Jordan during (2009-2018) (Table 1).

Table 2 shows that funding is concentrated in tow governorates, respectively Amman (17%) and Irbid (13%).The other governorates between 8% and 2%.

SMEs financial constraints: Many SMEs face many obstacles that hinder them from achieving their economic and social objectives.

Table 1: Loans financed by the development and employment fund by sector during the period 2009-2018

Sector	Funding	Ratio (%)
Agricultural	152,300	0.1
Industrial agricultural	1,284,305	0.8
Industrial	10,626,902	6.3
Household	7,616,133	4.5
Services	18,358,136	10.9
tourist	8,908,980	5.3
Household	36,500	0.0
Empowerment of rural women	18,544,011	11.0
Student loans	4,303,690	2.6
Trade	98,268,877	58.5
Total	168,099,836	100.0

Source: Prepared by researcher based on data from development and employment fund

Table 2: Loans financed by the development and employment fund by governorate during the period 2009-2018

Governorate	Total	Ratio (%)
Capital	55,945,491	17
Irbid	44,935,555	13
Zarqa	20,492,853	6
Balqa	21,213,218	6
Ma'an	28,399,180	9
Karak	29,244,770	9
Tafileh	28,034,945	8
Mafraq	27,486,836	8
Madaba	33,519,814	10
Ajloun	21,837,398	7
Jerash	13,782,231	4
Aqaba	8,252,778	2
Total	333,145,072	1.00

Source: Prepared by researcher based on data from development and employment fund

The nature of these obstacles varies according to the nature of the project, the activity it exercises and the country in which it operates (Qandah, 2009).

1. The need for funding from others where it is difficult to rely on self-financing
2. The high cost of financing compared to the rate of return on the project, which affects the competition with larger projects
3. Insufficient funding, bad product and marketing
4. Complex government procedures and high tax rates
5. Lack of clear and specific government legislation and policies to support and organize small enterprises
6. Poor management and lack of plans, strategies and sound organizational structures to ensure their growth and sustainability.

GDP: GDP is very important for every country. It reflects the health of the country's economy and has a great impact on individuals, the stock market and currencies. The change in the economy of a given country means a change in the returns of the elements of production and therefore the change in the volume of investment, if the change is negative, it will push the economy into a recession.

GDP is a measure of national income and the output of a country's economy over a given period of time. The definition of GDP is based on the total market value of all goods and services produced within the country within a specified time period (usually one year). The valuation process also includes the total value added at each stage of production intermediate goods and finished goods, (Kira, 2013).

There are several ways of calculating GDP, as the expenditure way and the income method (Al Habib and Alkoli, 2011), (Al-Afeef, Al-Qudah, 2015).

$$GDP = C + I + G + (X-M) \tag{4}$$

Where is:

C: Total consumption

I: It is the investment

G: It's the total government spending

(X-M): is the difference between exports and imports.

The researcher relied on the indicators of GDP through the statistical publications issued by the Central Bank of Jordan and as shown in Table 3.

Unemployment: The simple concept of unemployment is the presence of a large number of unemployed people in society.

But the economic – statistical unemployment concept is more specific and has a number of conditions which unemployment rates are calculated under it. These conditions are:

1. He/she must be able to work physically and mentally
2. He/she must be willing and ready to work
3. He/she must be constantly looking for work.

Unemployment is divided into three types depending on the factors that are related to them: (Al-Issa and Qataf, 2006)

- Cyclical unemployment: caused by cyclical fluctuations in total demand and total production
- Fractional unemployment: It is linked to temporary factors due to changes in the labor force and the labor market such as the movement of workers
- Structural unemployment: it comes from the incompatibility between the qualifications and skills of workers and their workplace.

The effects of unemployment: Societies and governments are concerned about the problem of unemployment because it is a social cost due to its negative effects. These effects include the waste of productive resources, the high rates of crime among the unemployed, the deviant and immoral behavior, and the high incidence of mental illness among them, (Mazharul and John, 2012).

The Table 4 shows that more beneficiary sectors of finance in job creation is the commercial sector with (about) 57%.

The Table 5 shows that the most governorate beneficiary provinces of financing in the creation of jobs is capital with 15.8%.

4. STATISTICAL ANALYSIS AND TESTING OF HYPOTHESES

After extracting the values of all the independent variables and the dependent variable; statistical analysis software (SPSS) will

Table 3: Jordanian gross domestic products 2008-2017

Year	GDP at current market prices million JD*	(Yearly %) GDP growth
2008	15593.4	7.23
2009	16912.2	5.48
2010	18762	2.31
2011	20476.6	2.59
2012	21965.5	2.65
2013	23851.6	2.83
2014	25437.1	3.10
2015	26637.4	2.39
2016	27444.8	2.00
2017	28448.5	1.97

* Jordanian Dinar=0.71\$. Source: Central Bank of Jordan, 2019

Table 4: Employment opportunities from loans financed by the development and employment fund by sector during the period 2009-2018

Sector	Number of jobs	Ratio (%)
Agricultural	99	0.19
Industrial agricultural	289	0.56
Industrial	2843	5.49
Household	2162	4.17
Services	5103	9.85
tourist	2618	5.05
Household	18	0.03
Empowerment of rural women	9347	18.04
Student loans	4	0.01
Trade	29333	56.61
Total	51816	100.00

Source: Prepared by researcher based on data from development and employment fund

be used to determine the impact of both (financing SMEs) on the (GDP and unemployment). The results were as follows in Table 6.

Table 6 shows the correlation between the study variables, this is to make sure that there's no strong relationship between each of the independent variables, so the researcher continued the analysis process.

Table 7 shows the explanatory power of the model through adjusted R square, which is about 95%, this means that 95% of the changes in GDP and unemployment are due to financing SMEs, and 5% of the changes due to other factors.

Table 8 shows that the level of significant is (0.00), <5%. This means that the model is acceptable.

Table 9 shows the results of the t-test which shows the effect of the independent variables (fund) on the dependent variable (GDP, unemployment).

Table 5: Employment opportunities from loans funded by development and employment fund by governorates 2009-2018

Governorate	Total	Ratio (%)
Capital	16303	15.88
Irbid	14311	13.94
Zarqa	7225	7.04
Balqa	7086	6.90
Ma'an	7128	6.94
Karak	9201	8.96
Tafleeh	7434	7.24
Mafrq	9200	8.96
Madaba	9173	8.93
Ajloun	7541	7.34
Jerash	5149	5.01
Aqaba	2927	2.85

Source: Prepared by researcher based on data from development and employment fund

Table 6: Correlations

		GDP	Unemployment
Pearson Correlation	GDP	1.000	0.765
	Unemployment	0.765	1.000

Table 7: Model summary

Model	R	R square	Adjusted R square	Sig. F change
1	0.976 ^a	0.953	0.950	0.000

Predictors: (Constant), unemployment. GDP. Dependent Variable: Fund

Table 8: ANOVA^b

Model	Df	Mean square	Mean square	F	Sig.
Regression	2	6.1E+015	3.051E+015	375.263	0.000 ^a
Residual	37	3.0E+014	8.129E+012		
Total	39	6.4E+015			

^aPredictors: (Constant), unemployment, GDP. ^bDependent variable: Fund

Table 9: Results of evaluating the model

B	Std. error	Beta	t	Sig.
-2E+007	2986736.721		-6.978	0.000
1078.369	166.765	0.358	6.466	0.000
2489.237	204.338	0.6750	12.182	0.000

^aDependent variable: Fund. Source: Based on the results of the analysis 2019

- The 1st null hypothesis: There is no statistically significant impact of funding SMEs on Jordan's GDP. Table 9 shows a statistically significant impact of the funding SMEs on GDP in Jordan. Where the calculated value of T (6.466) and the level of significance (0.000) which is less than the value ($\alpha = 0.05$). This means that the 1st Null hypothesis is rejection.
- The 2nd null hypothesis: There is no statistically significant impact of the funding SMEs on unemployment rates in Jordan. Table 9 shows a statistically significant impact of the funding SMEs on unemployment in Jordan. Where the calculated value of T (12.182) and the level of significance (0.000) which is less than the value ($\alpha = 0.05$). This means that the 2nd null hypothesis is rejection.

5. CONCLUSION

This study was aimed to investigate the impact of SMEs funding on, GDP and unemployment, as well as the amount of funding provided by the specialized institutions, and to identify the obstacles that these projects face in obtaining funding, the study shows that there is a statistically significant impact of the funding SMEs on GDP in Jordan, and also there is a positive relationship between funding SMEs and GDP. The other important result was there is a statistically significant impact of the funding SMEs on unemployment in Jordan and also there is a positive relationship between financing SMEs and unemployment. The explanatory power of the model through adjusted R square, was 95%, this means that 95% of the changes in GDP and unemployment are due to financing SMEs, and 5% of the changes due to other factors.

Based on the study results, the researcher recommends the following:

1. The need to strengthen the role of SME funding institutions to provide financial support for SMEs projects in order to achieve economic development and create new jobs opportunities in Jordan
2. Simplifying the procedures for obtaining and accelerating financing by reducing the required guarantees and ensuring the project's guarantee and continuous follow-up of the project
3. Expanding the base of beneficiaries of the loans, especially in the provinces and remote areas to contribute to the development of villages
4. The importance of working on the rehabilitation and training of workers in small and medium-sized enterprises because most of the failed projects are illustrated by the inability to manage.

REFERENCES

Al Habib, F., Alkoli, M.A. (2011), Principles of Macroeconomics. Riyadh: Al-Farazdaq Printing Press.

- Al-Afeef, M., Al-Qudah, A. (2015), The causal relationship between savings and investment in Jordan A prospective study for the period 1980-2013. *Journal of Economics and Sustainable Development*, 6(10), 229-237.
- Al-Issa, N., Qataf, I. (2006), *Macroeconomics Principles and Applications*. 1st ed. Jordan, Amman: Dar Al-Hamed Publishing.
- Al-Khasib, S. (2009), *Reality and Aspirations*. 3rd ed. Amman, Jordan: Small and Medium Enterprises in Jordan, Amman Chamber of Commerce, Department of Studies and Training, Electronic Journal.
- Al-Mubarek, M., Al-Shammari, T. (2006), *Establishment and Management of Small Projects*. Kuwait: Scientific Publishing Council, Kuwait University. p5-100.
- Alkaddoumi, T. (2012), Small Enterprises Finance in Jordan Obstacles and Challenges. *Gulf University Journal*, 4, 579-605.
- Central Bank of Jordan. (2019), Available from: <http://www.cbj.gov.jo>.
- Consultative Group to Assist the Poor. (2019), Available from: <http://www.cgap.org>.
- Development and Employment Fund. (2017), *The Impact of Financing and Non-Financing Services Offered by the Development and Employment Fund at Beneficiary Level*. Jordan: Arab Planning Institute.
- EJAB. (2007), *Legal Mechanisms to Enhance the Ability of the Poor to Permit and Practice Business in Jordan*. Jordan: World Trade Consultant.
- Foundation Center. (2019), Available from: <https://www.grantspace.org>.
- HariPriya, V.R., Thenmozhi, R. (2016), The effect of microfinance on GDP growth rate in India-an empirical study. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(10), 149-157.
- Kaddoumi, T. (2012), *Microfinance in Jordan*. Vol. 4. Jordan: Equations and Challenges Gulf University, Department of Administrative and Financial Sciences *Journal of the Gulf University, Department of Administrative and Financial Sciences*. p579-605.
- Kira, A.K. (2013), The factors affecting gross domestic product (GDP) in developing countries: The case of Tanzania. *European Journal of Business and Management*, 5(4), 148-158.
- Mazharul, H.K., John, E.L. (2012), Microfinance, poverty and youth unemployment of Nigeria: A review. *Global Journal of Human Social Science Sociology, Economics and Political Science*, 12(13), 45-59.
- Ncanywa, T., Getye, S. (2016), Micro-credit finance and unemployment in South Africa. *International Journal of Economics and Finance Studies*, 8(2), 107-116.
- Okafor, I.G. (2016), The impact of microfinance banks activities on employment generation in Nigeria. *Imperial Journal of Interdisciplinary Research*, 2(6), 685-692.
- Qandah, A. (2009), *Monetary and Financial Policies and Their Impact on Retail Lending and SME Financing*. Jordan: Association of Banks.
- Seidam, A.M., Al Namroti, K.A. (2012), *Role of Small Enterprises in Job Creation for Graduates*, Presented by the Center for Youth and Development in Palestine. Gaza: The Islamic University.
- Small and Medium Enterprises Guide*. (2017), A Practical Guide for SMEs. Amman, Jordan: Central Bank of Jordan.
- The Development and Employment Fund Jordan*. (2018), Available from: <http://www.def.gov.jo>.