The Impact of Financial Inclusion on Economic Growth and Social Development in the Hashemite Kingdom of Jordan

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***Abstract*:**

***Purpose*: Based on available detailed data, the primary objective of this study is to assess the relationship between financial inclusion and economic growth & social development in the Hashemite Kingdom of Jordan, then accord relevant recommendations to prompt economic growth and social development.**

***Methodology*: This study's methodological approach is based on data analysis from 2007 to 2020, which was performed using a descriptive statistical approach, regression, and correlation analysis (i.e. the Pearson correlation).**

Findings: Findings reveal a significant relationship between financial inclusion and both economic growth and social development, implying that increasing financial inclusion may lead to an increase in economic growth and social development. In addition, that the Central Bank of Jordan and financial institutions have to continue their work on developing appropriate financial products and services for all segments of society, as well as on enhancing financial literacy, which can benefit in two ways: making more informed financial decisions and using the financial products and services responsibly.

Practical implications: According to the findings of the study, encouraging more people to use financial products and services and expanding formal financial access can boost Jordan's economic growth and social development. The Jordanian policy makers should continue down the same path of prioritizing financial inclusion because they have already engaged all key stakeholders in the financial system.

Originality/value: The study demonstrates the link between financial inclusion and financial development in Jordan and emphasizes the importance of policymakers and financial institutions in designing and implementing projects and initiatives to increase access to financial services.

***Keywords*: Financial inclusion, GDP, Human development index.**

I. INTRODUCTION

Financial inclusion is defined as a phenomenon that allows adults - regardless of their income level- to access to and utilize financial products and services provided by regulated and supervised institutions in a high-quality manner. It also serves as a key enabler in accomplishing the World Bank's objective of putting an end to extreme poverty and G20's goal of eradicating poverty.

Offering financial products and services should go beyond having a deposit or transaction account at a bank or other financial institution, or a mobile money service provider for saving money and making payments, to include investments, financing, saving, insurance, and remittances, as well as other services that meet the needs of adults and enterprises. Financial inclusion is critical to the economy's function, but only if there is an appropriate regulatory structure in place to govern the market in terms of competition and protecting financial consumers.

Economic agents can benefit from financial access by engaging in long-term participatory investment activities, facilitating efficient allocation of productive resources and thus lowering the cost of capital, dealing with unexpected short-term shocks, significantly improving day-to-day financial management, and reducing exploitative informal credit sources.

The World Bank (2017) reported that 69 percent of adults have an account – either at a financial institution such as a bank or through a mobile money service provider – up from 62 percent in 2014 and 51 percent in 2012, and according to the World Bank, approximately 1.7 billion adults about a third of the global adult population as of 2020 – are unbanked or underbanked.

In recent years, there has been an increasing interest seeking to achieve financial inclusion, as each country took a different approach to promoting it depending on several factors including the different characteristics of each country. For example, the Hashemite Kingdom of Jordan had received several waves of refugees over the years from neighboring countries, the last of which was the Syrian refugees (2011) which required the provision of appropriate financial services and products.

The approach taken by different countries to achieve financial inclusion varied, as some chose to prepare an independent national strategy, such as (Nigeria and Indonesia), and others chose to build a comprehensive strategy for the entire financial sector, including partly on financial inclusion, such as (the Philippines and Malaysia).

II. LITERATURE

Before we can embark on investigating the impact of financial inclusion on economic growth, we must first define the term "financial inclusion”. Regardless of the fact that no single country has the same official definition.

The World Bank and GPFI define financial inclusion in a similar way, indicating that all society, including people and corporations, should have access to financial products and services provided by regulated and supervised institutions at an affordable price to meet their needs. However, they indicate that the financial products and services should include payments, investments, credit savings, and insurance in order to deliver those services in a sustainable manner. Moreover, many of the G20's objectives are related to achieving financial inclusion, as defined by the UNCDF.

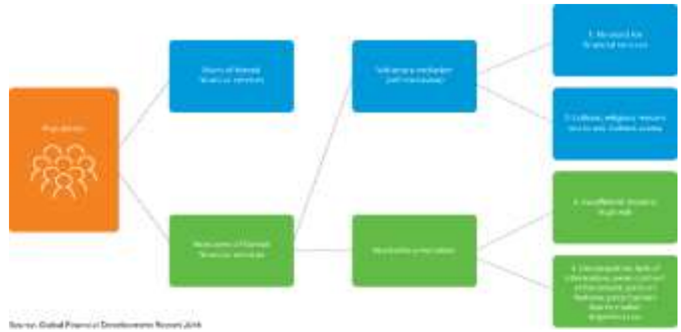
Queen Maxima the Secretary-General’s Special Advocate, who leads a global advocacy effort to advance financial inclusion, stated that it is not a means to an end, but it improves the level of living by creating jobs by incorporating people into the economy, empowering women and improve the level of education and access to health.

The World Bank, the Group of 20 countries, and Queen Maxima, all agree that the services that must be provided must be appropriate for all segments of society; they must satisfactorily meet their needs. More specifically, truly effective access to finance will result in the desired outcomes.

According to previous estimates, about a third of the global adult population as of 2020 are unbanked or underbanked. Figure 1 depicts the reasons for the excluded population, which includes those who do not use formal financial services, some of whom chose not to use them because they do not need them, others for cultural and religious reasons, and others for compelling reasons that prevent them from using or providing them, such as a lack of infrastructure, appropriacy, a scarcity of what meets society's needs, a lack of financial trust and awareness, and the absence of a suitable alternative.

Therefore, the inverse of inclusion is financial exclusion, which means being unable to access and use financial services and products for a variety of reasons. As a result, they make no official contributions to the financial sector, and as a result, to the economy.

Figure 1: Global Financial Development Report (2014) confirmed this as shown below:



The views of economists around the world have varied in recent years about the impact of financial inclusion on economic growth, both positively and negatively, and many studies have proven a positive relationship between them, as I will demonstrate below**:**

Many economists agree that financial inclusion reduces poverty, improves and increases household incomes, improves investments in education and health, and promotes business and related employment growth.

According to Sahay et al. (2015), increased financial access could boost economic growth to some extent, but after that, in some developed countries, the effect could turns negative.

Empirical evidence appears to support that financial inclusion has a positive impact. According to Kim (2016), it does have significant positive impact on economic growth in the European Union (EU) and OECD countries, though in cases of extreme brittleness, the effect is much stronger than in low brittleness countries.

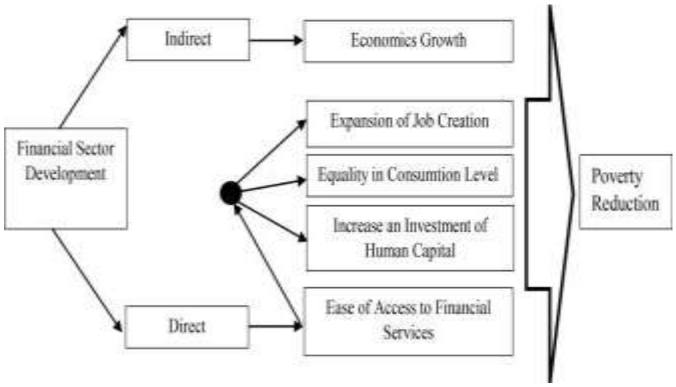
Emara and Mohieldin (2020) were also curious about the effects of financial inclusion in the MENA region. They also discovered that financial inclusion has a large and positive impact on economic growth.

For example, Khan et al. (2021) examined the impact of financial inclusion on poverty, income inequality, and financial stability in 54 African countries from 2001 to 2019. They claimed that financial inclusion reduces poverty, income inequality, and improves financial stability.

Recognizing the relationship between financial inclusion, poverty, and income inequality on a national scale will assist policymakers in taking the necessary steps to increase financial access and usage, thereby reducing poverty and increasing income equality.

Claessens and Faijen show in figure 2 below that developing the financial sector, which includes financial services and products, has both direct and indirect effects on economic growth, resulting in poverty reduction.

Figure2: Financial sector development (Claessens and faijen, 2007)



In Jordan, financial inclusion is defined in the National Financial Inclusion Strategy (2017-2020) as the state wherein individuals and businesses have convenient access to and use affordable and suitable financial products and services – payments, savings, credit, transactions and insurance – that meet their needs, help improve their lives, and are delivered in a responsible and sustainable way.

According to CBJ Deputy Governor Maher Sheikh Hassan, the developed action plans derivate from the NFIS allows both people and businesses to appropriately obtain financial services and products to meet their needs and improve their level standards.

III. STUDY OBJECTIVES

The purpose of this study is to look into the link between financial inclusion, and economic & social development in Jordan. The primary goals of this research plan is to figure out the effects of the main primer, such as financial inclusion, on economic growth in Jordan, and to assess the impact of financial inclusion on social development in Jordan.

IV. METHODOLOGY

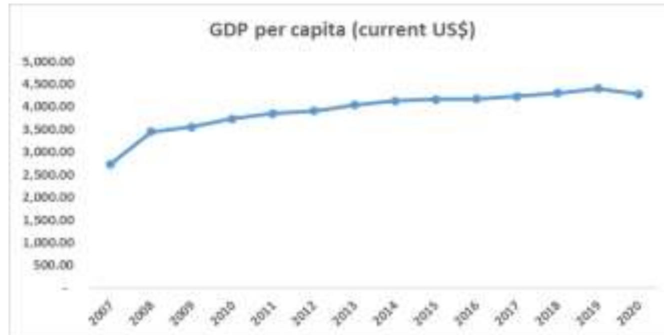
4.1 Data

As many researchers defined that, there are at least two dimensions to calculate financial inclusion; access and usage. Access here is represented by two indicators: bank branches (per 100,000 adults), ATMs per (100,000 adults). Two indicators represent usage: domestic credit to the private sector (% of GDP) and gross domestic savings (% of GDP).

This study relied on secondary data gathered from the World Bank, and the Human Development Report, as shown in figures 3–6. Annual time series data were used in this study from 2007 to 2020. The data collection methodology must be consistent with the study's objectives, as this study investigates the contribution of: commercial bank branches (per 100,000 adults), ATMs per (100,000 adults), domestic credit to the private sector (% of GDP) and gross domestic savings (% of GDP) on economic growth and social development in Jordan.

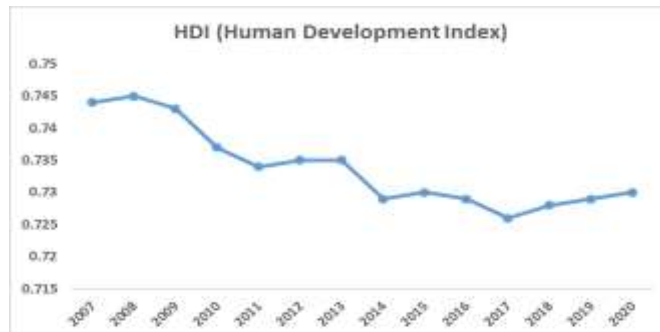
Secondary data is appropriate for the study.

Figure 3:



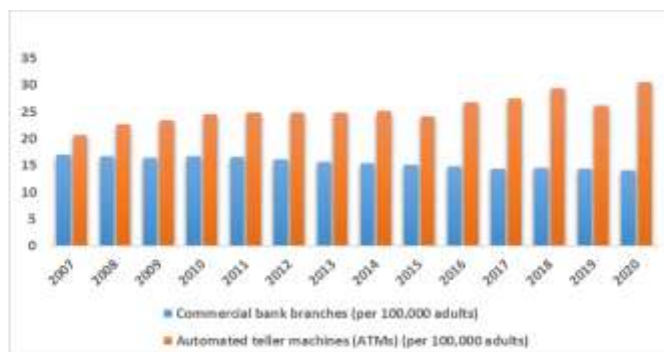
Source: https://data.worldbank.org/

Figure 4:



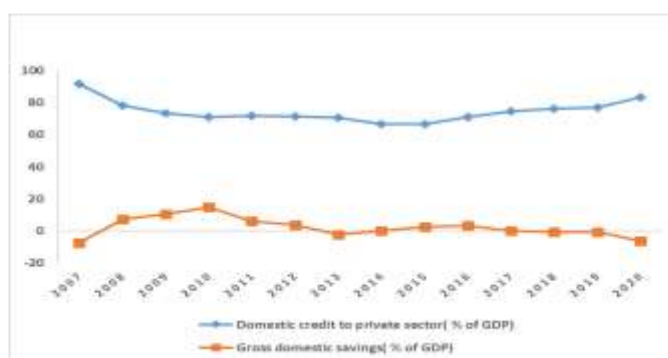
Source: https://countryeconomy.com/hdi/jordan

Figure 5:



Source: https://data.worldbank.org

Figure 6:



Source: https://data.worldbank.org/

4.2 Model

4.2.1 The relationship between financial inclusion and HDI

A multiple regression model was used in this study:

$Yi=\beta0+\beta x1+\beta x2+ \beta x3+.....+\beta xn+\epsilon$

Where in first theory:

Y = Dependent variable is the Human Development Index (HDI).
$\beta0$ = Constant term.
x1 = Commercial bank branches (per 100,000 adults).
x2 = Automated teller machines (ATMs) (per 100,000 adults).
x3 = Domestic credit to private sector(% of GDP).
x4 = Gross domestic savings(% of GDP).
ϵ = Error term.

4.2.2 Hypothesis

Two-tailed t-test will be performed to test the significance of the coefficients on the hypothesis: H0. There is no relationship between financial inclusion and social development represented by human development index (HDI) in Jordan.

Ha. There is a relationship between financial inclusion and social development represented by human development index (HDI) in Jordan.

4.2.3 Analysis

a. Pearson correlation shows a significant correlation between the dependent variables HDI and commercial bank branches (per 100,000 adults) at 0.865, and low correlation with domestic credit to the private sector (% of GDP) and gross domestic savings (% of GDP) at 0.390 and 0.309, and no relationship with ATMs.
b. As shown in table 2, Multiple R shows the dependence of the dependent variable on explanatory. In this case, its value is 0.933, so it can be stated that there is a direct linear relationship between social development and financial inclusion in the Hashemite Kingdom of Jordan. The value of R Square is 0.870, so it can be stated that a reliability of the resulting regression model (87 % of cases are described through the proposed regression model) exists.
c. The Adjusted R-square of 0.813 shows that about (81.3%) of the variation in the dependent variable is explained by other factors excluded from the model, representing a minute deviation in prediction.
d. The ANOVA table 7 however shows that the model fit is significant at a statistical significance of 0.001 which is < 0.05.

4.2.4 The relationship between financial inclusion and GDP

Y = Dependent variable is Gross Domestic Product (GDP).
$\beta0$ = Constant term.
x1 = Commercial bank branches (per 100,000 adults) .
x2 = Automated teller machines (ATMs) (per 100,000 adults) .
x3 = Domestic credit to private sector(% of GDP).
x4 = Gross domestic savings(% of GDP).
ϵ = Error term.

4.2.5 Hypothesis

H0. There is no relationship between financial inclusion and economic growth represented by gross domestic product (GDP) in Jordan.

Ha. There is a relationship between financial inclusion and economic growth represented by gross domestic product (GDP) in Jordan.

4.2.6 Analysis

a. Pearson correlation shows a significant correlation between the dependent variables GDP and automated teller machines (ATMs) at 0.809, and no relationship with commercial bank branches ,domestic credit to the private sector (% of GDP) and gross domestic savings (% of GDP).
b. As shown in the table, Multiple R shows the dependence of the dependent variable on explanatory. In this case, its value is 0.977, so it can be stated that there is a direct linear relationship between economic growth and financial inclusion in the Hashemite Kingdom of Jordan. The value of R Square is 0.955, so it can be stated that the reliability of the resulting regression model (95.5 % of cases are described through the proposed regression model) exists.
c. The Adjusted R-square of 0.935 shows that about (93.5%) of the variation in the dependent variable is explained by other factors excluded from the model, representing a minute deviation in prediction.
d. The ANOVA table however shows that the model fit is significant at a statistical significance of 0 which is < 0.05.

V. CONCLUSION AND RECOMMENDATIONS

This study showed that financial inclusion has an impact on economic growth represented by GDP, as well as social development, represented by the HDI index. It is important to ensure continuity of work to promote financial inclusion by Jordanian policy makers and related partners of banks and non-bank financial institutions, organizations, civil society and international organizations. These results support the impact on both economic and social development goals of combating poverty, improving living standards, improving equality between women and men, creating employment opportunities and reducing unemployment. As a result, the government and policymakers must address policy issues in order to promote economic and social growth through financial inclusion. For this, the following is necessary:

- Central Bank of Jordan in accordance with the sector in the kingdom should be proactive to develop appropriate financial products and services to meet the demands of all segments of society.
- All sector stakeholders have to enhance financial literacy.
- Regulators should become more active in the FinTech sector in order to better understand the sector's opportunities, risks, and concerns.
- Increase MSME financing to promote economic growth and job creation.
- Central Bank of Jordan has to aggregate financial access and usage data based on gender, to better understand the gaps in the sector related to gender.

APPENDIX:

Table 1: The descriptive analysis of the related indicators (HDI, Commercial bank branches (per 100,000 adults), Automated teller machines (ATMs) (per 100,000 adults), domestic credit to private sector (% of GDP), gross domestic savings (% of GDP):

Indicators	Mean	Std. Deviation	N
HDI	0.73	0.006	14
Commercial bank branches (per 100,000 adults)	15.5750	1.02361	14
Automated teller machines (ATMs) (per 100,000 adults)	25.40543	2.569442	14
Domestic credit to private sector (% of GDP)	74.58407	6.666302	14
Gross domestic savings (% of GDP)	2.27164	6.049395	14

Table 2: Pearson correlation with HDI

Indicators		HDI	Commercial bank branches (per 100,000 adults)	Automated teller machines (ATMs)	Domestic credit to private sector (% of GDP)	Gross domestic savings (% of GDP)
HDI	Pearson Correlation	1	0.865	-0.773	0.390	0.309
	Significance (2-tailed)	-	0	0.001	0.169	0.282
Commercial bank branches (per 100,000 adults)	Pearson Correlation	0.865	1	-0.837	0.100	0.475
	Significance (2-tailed)	0	-	0	0.734	0.086
Automated teller machines (ATMs) (per 100,000 adults)	Pearson Correlation	-0.773	-0.837	1	-0.079	-0.270
	Significance (2-tailed)	0.001	0	-	.788	.351
Domestic credit to private sector (% of GDP)	Pearson Correlation	0.390	0.100	-0.079	1	-0.512
	Significance (2-tailed)	0.169	0.734	0.788	-	0.061
Gross domestic savings (% of GDP)	Pearson Correlation	0.309	0.475	-0.270	-0.512	1
	Significance (2-tailed)	0.282	0.086	0.351	0.061	-

Table 3: HDI Regression

HDI	Value
R	0.933[a]
R Square	0.870
Adjusted R Square	0.813
Std. Error of the Estimate	0.003
R Square Change	0.870
F Change	15.106
df1	4
df2	9
Sig. F Change	0.001

a. Dependent Variable: HDI

b. Predictors: (constant), Gross domestic savings (% of GDP), Automated teller machines (ATMs) (per 100,000 adults) - Jordan, Domestic credit to private sector (% of GDP), Commercial bank branches (per 100,000 adults) – Jordan

Table 5: The descriptive analysis of the related indicators (GDP, Commercial bank branches (per 100,000 adults), Automated teller machines (ATMs) (per 100,000 adults), Gross domestic credit, Gross domestic savings).

Indicators	Mean	Std. Deviation	N
GDP	3928.14179	446.002413	14
Commercial bank branches (per 100,000 adults)	15.5750	1.02361	14
Automated teller machines (ATMs) (per 100,000 adults)	25.40543	2.569442	14
Domestic credit to private sector (% of GDP)	74.58407	6.666302	14
Gross domestic savings (% of GDP)	2.27164	6.049395	14

Table 6: Pearson correlation with GDP.

Indicators		GDP	Commercial bank branches (per 100,000 adults)	Automated teller machines (ATMs)	Domestic credit to private sector(% of GDP)	Gross domestic savings(% of GDP)
GDP	Pearson Correlation	1	-0.846	0.809	-0.533	-0.099
	Significance (2-tailed)	-	0	0	0.050	0.736
Commercial bank branches (per 100,000 adults)	Pearson Correlation	-0.846	1	-0.837	0.100	0.475
	Significance (2-tailed)	0	-	0	0.734	0.86
Automated teller machines (ATMs) (per 100,000 adults)	Pearson Correlation	0.809	-0.837	1	-0.079	-0.270
	Significance (2-tailed)	0	0	-	0.788	0.351
Domestic credit to private sector(% of GDP)	Pearson Correlation	-0.533	0.100	-0.079	1	-0.512
	Significance (2-tailed)	0	0.734	0.788	-	0.061
Gross domestic savings(% of GDP)	Pearson Correlation	-0.099	0.475	-0.270	0.512	1
	Significance (2-tailed)	0.736	0.86	0.351	0.061	-

Table 7: Regression with GDP

GDP	Value
R	0.977[a]
R Square	0.955
Adjusted R Square	0.935
Std. Error of the Estimate	113.728047
R Square Change	0.955
F Change	47.733
df1	4
df2	9
Sig. F Change	0

a. Predictors: (Constant), Domestic credit to private sector(% of GDP), Automated teller machines (ATMs) (per 100,000 adults) - Jordan, Gross domestic savings(% of GDP), Commercial bank branches (per 100,000 adults) - Jordan

b. Dependent Variable: GDP per capita (current US$) – Jordan

Table 8: GDP ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2469529.364	4	617382.341	47.733	.000[b]
Residual	116406.619	9	12934.069		
Total	2585935.983	13			

a. Dependent Variable: GDP per capita (current US$) - Jordan

b. Predictors: (Constant), Domestic credit to private sector(% of GDP), Automated teller machines (ATMs) (per 100,000 adults) - Jordan, Gross domestic savings(% of GDP), Commercial bank branches (per 100,000 adults) – Jordan

Table 9 : GDP Collinearity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	8239.159	1528.617		5.390	.000		
	Automated teller machines (ATMs) (per 100,000 adults) - Jordan	58.508	23.994	.337	2.438	.037	.262	3.820
	Commercial bank branches (per 100,000 adults) - Jordan	-228.769	71.361	-.525	-3.206	.011	.186	5.363
	Domestic credit to private sector(% of GDP)	-29.984	6.369	-.448	-4.708	.001	.552	1.812
	Gross domestic savings(% of GDP)	.862	8.232	.012	.105	.919	.401	2.493

a. Dependent Variable: GDP per capita (current US$) - Jordan

Funding and/or Conflicts of interests/Competing interests:

Declarations

- *This study is the responsibility of the researcher and the opinion expressed is the researcher's own.*
- *The author declares no conflict of interest.*

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