The Relationship between Borrowing, Saving and Individuals' Socio-Economics Characteristics in Palestine

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The Relationship between Borrowing, Saving and Individuals' Socio- Economics Characteristics in Palestine

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Abstract

This study aims to test the relationship between individual's socio-economics characteristics and borrowing and saving in Palestine. We find that age is positively related to all borrowing purposes, i.e. education, medical, business, and home/land. It was found also that female variable is related to borrowing for business, and home/land. The secondary education level is found to be related to borrowing for education. But the tertiary education level has no relation with any of the borrowing purposes. The income level is some relation with some of the borrowing purposes. In regard to savings purposes, it was found that saving for age and saving for education are related to the variables: age, female, secondary education, tertiary education, and the first three income quartiles, the relation has different levels and signs. But has no relation to the fourth quartile "rich". We recommend further studies, to examine other factors that could have an effect on the borrowing and saving behavior of the citizens.

Keywords: Palestine, saving, borrowing, individual characteristics

Introduction

Financial inclusion can improve the life styles of the disadvantaged people (i.e., the poor, women, youth, and the illiterate) by enabling them to invest in businesses, gain access to health services, and acquire education so as to improve knowledge, skills and employability. In 2010 G20, determined that world development could be enhanced through financial inclusion, which is defined as the formal financial services being made available to all communities so they can cover their needs at an affordable price. Financial development focuses on measures at the country level, such as the performance of stock market indices, and the percentage of bank loans to GDP, where financial inclusion is measured according to individuals' level of access to and use of formal financial services (banks and other lending agencies). Thus, financial inclusion at the micro-level that enhances financial development at the macro level is key for development sustainability, Klapper et. Al. (2016).

Several studies discussed and analyzed financial inclusion issues among the world, Wang and Guan (2017) analyzed the level of financial inclusion among different countries. They found that the high income developed countries in Europe and North America have a high level of financial inclusion than

other countries in Africa and Asia. Thus, the income, education level and banking sector are considered as determinants to the financial inclusion. Gabor and Brooks (2017) pointed that improving the digital tools could enhance the access and usage of formal financial sources level in the countries and let more poor people to be financially included. Zins and Weill (2016) found that poor people and female are less likely to access and use the formal financial sources and enhancing the mobile banking could enhance their ability to use these sources among African countries. Fungacova and Weill (2015) found that China have the lower level of borrowing indicator compared to other BRICS countries. Also, poor people and female are less likely to be use the formal sources of financial services. Wulandari et. al (2017) pointed that more financial awareness campaign could help farmer to know more about financial services providers. Wang and Shihadeh (2015); and Shihadeh et. al (2017) addressed and discussed some indicator of financial inclusion (i.e. saving, borrowing). Also, they present the developments in Palestine in regards to banking penetration through branches, ATMs and POSs. They pointed that Palestine have notable developments in the banking penetration, and electronic tools, while the borrowing percentage is still very low. Furthermore, Palestine have notable efforts in financial awareness as well as on other financial regulations and rules Efobi et al. (2014) analyzed the reach of access and usage of banking services in Nigeria by using three indicators: use of bank service, saving, and frequency of withdrawals. The authors found that Nigeria has low credits as a percentage of GDP from 1990 to 2010. Income, level of financial discipline, information, and communication technology inclination revealed the use of bank services in Nigeria. Beck et. al (2009) pointed that some of financial exclusion (people are not included to the formal financial system) is related to individuals themselves as they don't need the financial services.

This study aims to examine the influence of individual socio-economic characteristics on borrowing and saving purposes as financial inclusion factors. Basing on the previous studies which analysed the relationship between the individual socio-economic characteristics and financial inclusion factors. Therefore, we hypothesized that:

H1: There is a significant influence of individual's socio-economic characteristics on borrowing and saving in Palestine.

This paper organized as follow: next section presents the methodology, third section 3 presents the empirical Study, where section 4 presents the conclusion.

Methodology

Data

We used the Global Findex Database of World Bank which presented by Demirguc-Kunt et. al, (2015) to analyse the borrowing and saving purposes link it with the individual's characteristics in Palestine, our selected data covered 1000 individual from Palestine. Therefore, we use this database to analyze the borrowing and saving behavior and purposes in Palestine. Table (1) presents the Definition of independent variables.

Table 1: Definition of independent variables

Variables	Definition
Age	Age in number of years.
Female	1 if female, 0 if else
Secondary education	1 if secondary education, 0 if else
Tertiary education	1 if tertiary education, 0 if else
Poorest-income20%	1 if income is in the first income quintile, 0 if else

Second-income 20%	1 if income is in the second income quintile, 0 if else
Third-income20%	1 if income is in the third income quintile, 0 if else
Fourth-income20%	1 if income is in the fourth income quintile, 0 if else

Source: Global Findex database 2014 and authors' calculations.

Model

We examined the following; borrowing purposes; saving purposes as financial inclusion factors and linked with the individual socio- economics characteristics in Palestine. These characteristics are related to age, gender, education and income as independent variables. Our main objective in this study, is to analyze the relationship between the individual socio-economics characteristics and borrowing; saving purposes, as financial inclusion factors. And as the respondent's answer is a binary variable (0, 1), thus, we use the logistic regression as its suitable technique of our data. Therefore, following the previous studies Fungacova and Weill (2015); Wulandari et. al (2017); Allen et. al, (2016):

$$Yi = \alpha + \beta * \text{gender}_i + \mu * \text{age}_i + \sigma * \text{education}_i + \gamma * \text{income}_i + \varepsilon_i$$

Where Y is the borrowing and saving purposes as determinants of financial inclusion; and i represents the respondents., gender, age, education, and income are the explanatory variables in our model.

Empirical Study

The Descriptive statistics

In this section, we present the descriptive statistics analysis for dependent variables. These statistics are presented in table 2, as below.

Table 2: Descriptive statistics for the variables

Dependent Variables	Obs.	Mean	Std. Dev.
Borrowing Purposes			
Borrowed for education	1000	0.061	0.239
Borrowed for medical	1000	0.095	0.293
Borrowed for business	1000	0.027	0.162
Borrowed for home/land	1000	0.067	0.25
Saving Purposes			
Saved for farm	1000	0.044	0.205
Saved for age	1000	0.059	0.235
Saved for education	1000	0.085	0.279
Independent Variables			
Age	1000	37.32	16.864
Female	1000	0.575	0.4946
Secondary education	1000	0.614	0.4871
Tertiary education	1000	0.146	0.3533
Poorest-income20%	1000	0.148	0.3553
Second-income 20%	1000	0.186	0.3893
Third-income20%	1000	0.194	0.3956
Fourth-income20%	1000	0.188	0.3909

Source: Global Findex database 2014 and authors' calculations.

The Empirical Examinations

Borrowing purposes

In this section, we are going to examine the relation between individual socio-economic characteristics and borrowing purposes. We run the logistic regression using borrowing for education, medical purposes, business or farm and home or land as dependent variables, whereas the individual socio-economic characteristics were used as an explanatory variable. Therefore, we can understand from these purposes why people are looking to borrow money, especially poor people, then formal institutions could build the national development agenda in regard to these purposes and direct the lender and other financial services provider to offer more convivence services for education, medical or other purposes. Notably, that development is considered as sustainable process and some of the requirements for this sustainability is the participation of all entities in this process. Table 2 presents the coefficients between individuals' socio- economics characteristics and borrowing purposes in Palestine, and standard errors.

Table 3: The Borrowing Purposes

Individual characteristics	For education	For medical	For farm/business	For Home/ land
Female	0.029	0.162	-0.423**	-0.422***
	(0.132)	(0.116)	(0.180)	(0.130)
Age	0.071***	0.029*	0.094***	0.067***
	(0.024)	(0.017)	(0.038)	(0.021)
Tertiary Education	0.305	-0.113	0.362	0.635
	(0.243)	(0.217)	(0.282)	(0.218)
Secondary Education	0.401**	0.033	-0.004	0.212***
	(0.202)	(0.151)	(0.249)	(0.189)
Poorest -income 20%	-0.677***	0.729***	-0.218	-0.512**
	(0.266)	(0.177)	(0.330)	(0.254)
Second -income 20%	-0.189	0.416**	0.193	-0.254
	(0.190)	(0.175)	(0.250)	(0.202)
Third -income 20%	-0.317*	0.305*	-0.353	-0.302
	(0.194)	(0.177)	(0.321)	(0.197)
Fourth-income 20%	-0.193	0.023	0.116	-0.006
	(0.182)	(0.194)	(0.241)	(0.175)
Observations	1000	1000	1000	1000
LR chi2(9)	25.63	28.50	24.82	49.84
Prob > chi2	0.002	0.000	0.003	0.000

Source: Global Findex database 2014 and authors' calculations. *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses

From Table 3 we can note that age have a positively relation with all borrowing purposes. While female are less likely to borrow for business or farm nor for buying home or land, where there is no relation between being female and borrowing for education nor for medical purposes. For educated people, we find that secondary educated are likely to borrow for education purposes, while no relation is linked with other purposes, where educated people have a chance for innovation which reflect on their business and economic growth PCBS (2017). Unexpected results come for tertiary, that we find tertiary education have no relation with any borrowing purpose in our analysis, these results come inconsistent with Zins and Weill (2016).

Poorest people are more likely to borrow for medical purposes than other purposes, while they are less likely to borrow for education purposes, that is the medical purposes comes as the first consideration. Also, we find that no relation between poorest people and borrowing for farms or business that they didn't have or cannot borrow due to lack of collaterals, this may refer to that formal institutions like banks ask for more collateral on loans for business purposes than personal loans. Further, for income quintiles, we find that second and middle-income people are more likely to borrow for medical purposes with advantage for second quintile. Thus, middle income people are less likely to borrow for education, and no relation with other variables. Also, we find that rich people have not any relation with the borrowing purposes which we used in this paper.

The percentage of borrowing for house and land loans was 24.7 % from the total loans to the private sector PMA (2016). This motivates us to analyze the individual socio-economic characteristics that influence the borrowing from formal institutions for home or land. Thus, we find that female and poorest people are less likely to borrow for house or land, where other income quintiles and tertiary education have no relation linked with loan for home or land, while, secondary educated people more likely to borrow for home or land. Moreover, we find that rich people are less likely to borrow for home or land, that maybe they have their own sources to buy home or land.

Saving purposes

In this section, we will analyze the saving purposes in Palestine. Usually people save money to cover their future needs, thus, this behavior differs according to the individual characteristics. As in previous analysis, in this section we will use the logistic estimation to examine the dummy variables which presents the individual characteristics as explanatory variables, while saving for age, education and farms or business were used as dependent variables. In Table 4 we present the estimation results for individual characteristics effect on saving.

Table 4: The Saving Purposes

Individual characteristics	For Age	For Education
Female	0.005***	-0.354***
	(0.145)	(0.120)
Age	0.037*	0.045**
	(0.021)	(0.020)
Tertiary Education	0.479**	0.598***
	(0.221)	(0.219)
Secondary Education	-0.003***	0.403**
	(0.192)	(0.196)
Poorest-income 20%	-1.104***	-0.699***
	(0.418)	(0.229)
Second- income 20%	-0.648***	-0.602***
	(0.249)	(0.199)
Third-income 20%	-0.442**	-0.398**
	(0.212)	(0.176)
Fourth-income 20%	0.091	-0.114
	(0.175)	(0.158)
Observations	1000	1000
LR chi2(9)	68.74	51.60
Prob > chi2	0.000	0.000

*Source: Global Findex database 2014 and authors' calculations. *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses*

From Table 4 we find that age as explanatory dummy variable is positively linked with saving for elder age and education, with advantage to save for education. Also, female is more likely to save for elder age but with small coefficient, where they are less likely to save for education. Furthermore, the secondary educated people are more likely to save for education than for age, while the tertiary educated more likely to save for both reasons with advantage for the education reason. The first three income quintiles are linked with both saving reasons but in negative, that people in these quintiles less likely to save for education and age, while the fourth quintile, which presents the rich people, is not linked with both of reasons. For poorest and poor (first and second quintiles), maybe they don't have excess money to save, still they need money to cover the daily needs, where the rich people may don't think that they need to save for future or for education, as one of economics principle that more income leads to more consumption than saving. Meanwhile, we omitted the third reason which is saving for farm or business as there is no one of the respondents addressed it as a reason for saving in Palestine, thus, we could build on these results to understand why people are not interested in saving for business purposes and the influence on unemployment, economic growth and the sustainability in the development process.

Conclusions

This paper examines the individual socio-economic characteristics linked with the borrowing and saving purposes as determinants of financial inclusion in Palestine. As in Shihadeh et. Al. (2017), and PMA (2017) studies conducted recently, Palestine achieved remarkable development in terms of its financial-inclusion infrastructure, regulations, and financial awareness among its targeted disadvantaged population of adults (i.e., females, the illiterate, the poor, the unemployed). In addition, Palestine achieved remarkable development in banking penetration, such as increasing the number of branches, ATMs, and POSs These developments could enhance the borrowing and saving at formal institutions which could positively reflecting in the economic. Also, these developments could enhance the global agenda to achieve economic growth and equality as factors for sustainable development. People in Palestine, are more likely to borrow money for medical purposes, especially the poor, whereas they are not interested in borrowing for a business and a farm. For savings purposes, people are more interested in saving for education rather than for old age or to own a business.

There are very few studies conducted in the MENA region on this topic especially in Palestine, this research paper adds to the literature a significant contribution that could be a base for further studies that is expected to make the picture clearer about the status in Palestine, which could be a significant input for decision makers as well. As the financial inclusion is one of the important elements of the economy and providing initial understanding of its phenomena in Palestine is most likely to have a positive influence on the quality and quantity of the studies that can be conducted on the topic.

Based on the findings of this study, we recommend having more research to understand what are the other factors that might affect the saving and borrowing behavior of Palestinians. Understanding what Individuals' socio- economics characteristics affect these behaviors will help the PMA, and financial institutions enhance the financial system, that is expected to participate positively in the economy development.

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