YOUTH FINANCIAL LITERACY: A PILOT STUDY FOR A NATIONWIDE EDUCATION PROGRAM IN MOROCCO

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Abstract

In light of the increased financial stains experienced in our world today, several countries have taken initiative to improve the levels of financial literacy of their young population. Western countries, including the United States and the United Kingdom, have implemented financial literacy in the curriculums of their primary and secondary school education systems. Other eastern countries, including a general analysis of the MENA region, have been less proactive and targeted in their programs. Rather, they have simply introduced general financial literacy agendas for the entire population through external institutions and programs. The aim of this pilot study is to analyze the financial literacy rate in the Moroccan young population, between ages 20 and 35, and examine the attitude and awareness of the population with regards to their financial spending. Based on the results of this pilot study, a financial literacy program would be beneficial to the Moroccan population by improving financial management and general economic standing. This can be concluded, as people with higher financial literacy are more likely to save money, better manage their income, and plan their future careers. Financial literacy was found to be a very important area of study that should be improved in Morocco in order to improve the population's financial management. As future research, a comprehensive study of the nation has to be conducted along with experimental testing of the program to conclude determine the significance of such a program for the Moroccan nation. Nonetheless, it has been found, that a financial literacy curriculum can improve financial management and individual planning.

Keywords: Financial Literacy, Youth, Morocco, Money Management, Spending, Education.

1. INTRODUCTION

Financial literacy can be described as the "knowledge, skills and confidence to make responsible financial decisions" (Financial Literacy, 2015). These financial decisions relate to personal finance, including "real estate, insurance, investing, saving, tax planning, and retirement" (ibid). This subject has recently become a very important area of study as individuals have become increasingly wary about their financial understanding and their ability to survive in a highly economically dominated environment. As of 2015, the poor money management of people impacted not only individuals but also entire nations, which include Greece, Jamaica, Crimea, Puerto Rico and many others (Frohlich, Kent & Stebbins, 2015). This alarming

situation has brought to light many questions, one of which looks at whether the actual problem stems from an unequipped and financially uneducated population.

The aim of the study is to understand the perceptions, abilities and understanding of young Moroccan citizens on financial literacy. Based on the findings of the research and the stance of other countries, that have implemented the financial education program, notably the United Kingdom, the purpose of the study is to determine a framework for a comprehensive study to improve the current financial literacy situation in Morocco.

2. LITERATURE REVIEW

This section will discuss existing financial literacy programs that have been implemented in several countries, including the Unites States, United Kingdom, and the MENA region. It will highlight Morocco's present literacy situation and what has already been done to improve current financial literary rates within the population.

2.1 Defining Financial Literacy

The OECD (Organization for Economic Co-operation and Development) described financial literacy as "the process by which financial consumers and investors improve their understanding of financial products, concepts and risks and, through information, instruction and/or objective advice develop the skills and confidence to become more aware of financial risks and opportunities to make informed choices, to know where to go for help, and take other effective actions to improve their financial wellbeing" (Laboul & Messy, 2012). It relates to people's ability to properly make decisions relating to personal finance, including investing, insurance, real estate, tax planning, saving and retirement. As a repercussion of the financial crises, the importance of financial literacy has been increasingly acknowledged in the majority of economies as a primordial life skill (Cooper, 2010).

2.2 Benefits of Financial Literacy

2.2.1 Improve Financial Management

A national education curriculum can help the population make better informed decisions relating to cash management and money planning (Goyette, 2015). It can make them more aware of financial risks and opportunities to make better-informed choices, and take other effective actions to improve their financial status in the future (Llewellyn, 2012). A more financially educated population can improve future planning and ensure that the upcoming generations make better saving plans to ensure an improved future (Bernheim et al., 1997). According to Klapper et al. (2015), "financially educated people are 25% more likely to be on higher incomes, 10-20% more likely to have savings, and are 20% more likely to have a pension plan". Financial literacy also increases a person's chances of becoming an entrepreneur by 14-32% (ibid).

2.2.2 Reduce Economic Crises

In light of our increasingly financially complex environment, a future generation that is more familiar and understanding of financial products and concepts is also likely to decrease the likelihood of economic crises and recessions (Goyette, 2015). People are more wary of economic risks and better manage their careers and future life plans. Hence, they can make improved decisions on loans, savings, pension funds, and lifetime management, decreasing the probability of causing a national crisis and economic distress (Lusardi and Mitchell, 2006)..

2.2.3 Improve Country's Competitiveness and Economic Standing

A national youth financial education system at primary levels does not only help individuals at personal levels in terms of management and future stability, but also helps improve the country's general economic standing. Better financial management can reduce the number of individual insolvencies and personal debt (Moore, 2013). In addition, based on the studies conducted in the United Kingdom, a more financially educated population increases the chances of becoming an entrepreneur. Studies have shown a clear correlation between higher education levels and economic growth (Winch, 2013).

2.3 The Moroccan Context

The following section will highlight the current situation in Morocco in terms of general literacy rates and what

has been done to improve financial literacy within the general population.

2.3.1 Literacy Rates

Understanding overall literacy rates is important to examining financial literacy in Morocco. Literacy rates within the general Moroccan population have significantly improved within the past years. As of 2012, youth literacy rates (15-24 years old) have increased to 88.8% for males and 74% for females (UNICEF, 2013). Based on UNESCO reviews, Morocco has shown remarkable progress in combating illiteracy in the country (Bihmidine, 2013). This has been primarily due to the rising number of literacy programs that have been blooming across the country, particularly in the rural areas where much of the illiteracy exists.

Largely pushed by Morocco's commitment to the European Finance Association (EFA) goals, Morocco has done significantly well in its attempt to eradicate illiteracy and instill national literacy. However, studies and data collection has shown that it is still not at the level that it hopes to be. In 2012, Moroccan primary school participation was 96.8% for males and 95.6% for females; and secondary school participation was 38.7% for males and 36.1% for females (UNICEF, 2013). Therefore, increased literacy rates, especially in primary education, illustrate the need for greater financial transparency and understanding.

2.3.2 Financial Literacy Programs in Morocco

Morocco has been active in several regards by aiming to promote financial literacy as a nationwide strategy. For instance, CAWTAR, the Center of Arab Women for Training and Research, was created in 1993 to promote financial understanding and development for the female population. The aim of this program is to incorporate women in national managerial and administrative positions and improve their financial understanding. Furthermore, the Mohammed V Foundation for Solidarity also emphasizes financial inclusion by placing sustainable development and the integration of the poor into the economic cycle as a key aim of the organization (The World Bank, 2015).

Smaller organizations and banks have also aimed to improve financial literacy in the Moroccan scene to encourage the use of financial products and services. For instance, "L'ecole de la Bourse" and "Les Champoins de la Bourse", however, these programs target only a small portion of the population. (La Bourse de Casablanca, 2014). They include regular classes, online games, and national competitions to promote the inclusion of the young population in being financially proactive.

2.4 Implementation of Financial Literacy in the UK system

As of September 2014, the UK government instated financial instruction into the mathematics and citizenship curricula of primary and secondary school education. This was done with the aim to prepare young students with the knowledge and abilities necessary to manage their money, future careers, and saving plans (Drabble, 2014). The United Kingdom is one of the first countries to implement financial literacy within their primary and secondary school curriculums, therefore is an appropriate country to benchmark Morocco against and understand the system that they are currently using.

2.4.1 Objectives of the Financial Literacy Program

The All-Party Parliamentary Group on Financial Education for Young People is a committee that comprises of 249 members of parliament, which has instated financial literacy within the curriculum of primary schools in the United Kingdom (2013). Their main objective is to equip children with concrete financial skills that will help them manage their money on a daily basis and understand the basics of the financial system, in order to make better-informed future decisions and improve planning as they grow older. Within primary education, teachers are currently required to teach basic mathematics and money skills to provide foundations for secondary school more in-depth financial education (All-Party Parliament Group, 2013).

2.4.2 Primary and Secondary School Programs

To assert the importance of financial education, teachers are required by law to go through intensive training programs and students are required to score a minimum of grade B in mathematics. This can be done through the use of games and online programs that teach students how to save their money and manage their funds. These programs are meant to expose students to real life situations and require them to make virtual real life decisions (Goyette, 2015). For instance, MyBnk, a program set up as a game, contains quizzes and activities that can be used by school instructors to explain the notions of savings, borrowing and interest (Goyette, 2015). In addition, Pfeg is another program that aims to help instructors make financial teaching a compulsory part of youth education (Pfeg, 2015). The aim of the course is to train teachers and equip them with the necessary knowledge and resources to support teaching children about money

management. Through the use of online training for teachers, Pfeg has a goal to make future generations of students capable of dealing with money and become financially savvy. A list of programs, to train teachers and help students practice material that is covered in classes, were developed to reduce insolvency rates in the UK.

2.4.3 Comparing Cultures: Morocco and the United Kingdom

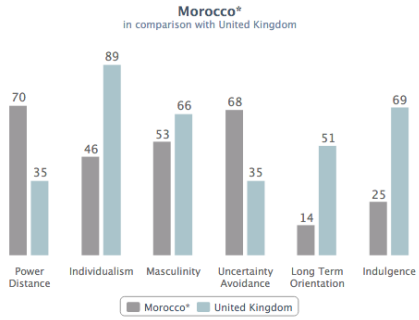

Fig. 1. Hofstedes' Dimensions (Hofstede, Hofstede, & Minkov, 2010)

The Figure shows that Morocco and the United Kingdom differ significantly in several cultural dimensions. The most important differences can be seen in power distance, individualism, uncertainty avoidance, and long-term orientation. While power distance is low in the UK, it tends to be a strong attribute of the Moroccan population. In addition, Moroccans tend to be more collectivist and are more short-term oriented than in the UK. This shows that family and friends are important aspects of the Moroccan culture. Furthermore, the Moroccan youth are less indulgent than British children, meaning that their social backgrounds and families have more control over them. The Moroccan population was also found to be more collectivist, showing that people are more helpful and supportive of one another.

3. METHODOLOGY

This study uses a qualitative approach to examine the perceptions of the young Moroccans with regards to how financial literacy. By examining the young population, between ages 20 and 35, of different genders and educational backgrounds the aim of the research is to find out how financially literate the Moroccan young population is and whether they are able to deal with financial burdens on a daily basis. This age group was chosen to understand the current stance of the Moroccan young population that has transitioned into adult life. The sample population was chosen from three different Moroccan cities. This provided insight into cities of different economic positions, cultural backgrounds, and educational stances. 90 surveys were conducted at the three different cities to provide a thorough sample for the study. Three interviews at Moroccan banks were also arranged to provide a holistic image and understanding of the current economic and financial stance of Morocco. The questionnaire was prepared as a semi-structured interview to enable a leeway in the interview. This study used the Organization for Economic Co-operation and Development International guide on how to measure financial literacy and for survey questions (OECD, 2015).

4. FINDINGS

4.1 Survey: Chi-Square Test of Independence

Karl Pearson first developed the chi-square test of independence in 1900, to establish whether there are any statistically meaningful relationships between two nominal variables (Plackett, 1983). Each noteworthy question in the survey is used as a variable to test against all other variables, in order to determine if there is any noteworthy dependency. The chi-square test is the most appropriate to use as it will help determine important relationships between variables.

➢ **Hypothesis:**

- H_0: The two nominal variables are independent (i.e. there is no relationship between them)
- H_1: The two nominal variables are dependent (i.e. there is a relationship between them)

- **Decision Rule:**

If $\chi^2 > \chi^2_U$, reject H_0, otherwise, do not reject H_0

4.1.1 Results of Chi-Square Test

Table 1. Variable Dependencies

Variable	*Number of dependencies*
X_6 = Heard of Pension Fund	29
X_{31} = Basic Financial Skills	29
X_7 = Heard of Investment Account	28
X_{30} = Education level	25
X_9 = Heard of Secured Bank Loan	24
X_8 = Heard of Mortgage	22
X_{32} = Work Situation	22
X_1 = Language	21
X_{10} = Heard of an Unsecured Bank Loan	20
X_{29} = Diversification	20
X_{28} = High Inflation	19
X_{16} = Heard of Stocks	18
X_{19} = Choose Financial Products	18
X_{13} = Heard of a Savings Account	17
X_{14} = Heard of a Microfinance Loan	17
X_{26} = High Risk	17
X_{17} = Heard of Bonds	16
X_{18} = Heard of a Prepaid Card	16
X_{24} = Long-term Goals	16
X_{27} = Make Money	15
X_{12} = Heard of Current Account	14
X_{23} = Risk Money	14
X_{15} = Heard of Insurance	11
X_{21} = Live for Today	10
X_{22} = Spend Money	10
X_{20} = Afford Product	9
X_{11} = Heard of Credit Card	8
X_{25} = Cover Living Costs	8
X_3 = Marital Status	3
X_5 = Money Decisions	2
X_2 = Gender	1
X_4 = Children	1

The following variables had the most dependency levels with other variables:

- Whether people hold basic financial skills to tackle day-to-day decisions also had strong dependency with 29 variables. For instance, people who answered that they had the necessary financial skills to tackle day-to-day decisions were also likely to consider whether they can afford a product before purchase and understood basic financial concepts, such as risk and return and inflation.
- Education level had high dependency with 25 variables. High education levels resulted in higher financial product awareness, better financial decision-making, and financial concept understanding.
- Work situation also had high dependency with 22 variables, it can be noted that students and self-employed individuals generally had higher financial understanding of products and concepts than the unemployed and employed for someone.
- Language had high dependency with 21 variables. French and English showed higher educational levels, financial product awareness, better financial decision-making, and financial concept understanding than people who answered the survey in Arabic.

The following variables had the least dependency levels with other variables:

- Marital Status had very little dependency with other variables, having a relationship with merely 3 variables. Therefore, it is not a noteworthy factor in determining financial literacy among the youth.
- Money decisions, a variable relating to who makes household decisions about money spending, had only 2 important dependencies on other factors. This shows that people with thorough financial understanding or high education levels were not necessarily the ones who make important household decisions about money spending. Students for instance may have better financial understanding than other family members, yet are not in the position to make household decisions.
- Gender was not a determinant factor in relation to financial literacy and had a dependency with only 1 significant factor. The only dependency was with work situation, where females were more likely to be unemployed. Therefore, this variable did not provide significant data for the study.
- Whether people had children or not also had low dependency on other variables, only 1 relationship. It did not show any important relationship with financial understanding, awareness, or informed decision-making.

4.2 Analysis of Chi-Square Test

Due to the high volume of chi-square tests performed in this study, only the most valuable relationships to this report will be discussed below.

4.2.1 Hypothesis Accepted

- H_0 was accepted for income covers living costs (x_{25}) and heard of savings account (x_{13}). This implies that whether people are aware of savings accounts does not necessarily mean that people spend their income in a sustainable or manageable manner. Not being able to cover living costs may be due to more suggestive factors such as low income, extravagant spending, or changes in employment situation; which are factors related to money management rather than financial concept understanding.
- H_0 was accepted for income covers living costs (x_{25}) and education level (x_{30}). Therefore, this implies that there is no link between education level and whether people have encountered trouble covering their living costs with their monthly income. This means that higher education does not necessarily make people spend their money in a wiser manner. This problem should be tackled with money management classes and financial education, rather than higher education.
- H_0 was accepted for the diversification variable (x_{29}) and financial skills variable (x_{31}). Therefore, there was no dependency between understanding the concept of diversification and whether people felt that they had the necessary basic financial skills to tackle everyday decisions. This can be explained with people not understanding the concept and importance of investing in a wide variety of products to reduce risk, therefore not knowing the importance of having basic financial skills.

4.2.2. Hypothesis Rejected

- H_0 was accepted for gender (x_2) and all other variables; expect, H_0 was rejected for gender (x_2) and work situation (x_{32}). Therefore, it can be concluded that gender had no noteworthy relationship with any financial variable and does not impact people's financial product and concept awareness, decision-making, or financial understanding. Gender is only a determinant of whether a person is likely to be working or not working.
- H_0 was rejected for language (x_1) and choosing financial products (x_{19}). Language had a relationship with the way people choose financial products. This dependency shows that people who generally speak English and French, make more informed decisions when choosing their financial products. Therefore, teaching students more languages may be beneficial to future generations.
- H_0 was rejected for make money variable (x_{27}) and heard of stocks variable (x_{16}). A relationship was found between understanding the financial concept "If you are given the chance to make a lot of money, you are likely to also lose a lot of money" (x_{27}) and whether people have heard of stocks (x_{16}). Therefore, people who are aware of stocks are likely to understand the concept that in order to make large amount of money, you must also be ready to lose large amounts of money. This reflects that there is a relationship between financial education, understanding of financial concepts, and awareness of important financial products.

4.3 Interview Findings and Observations

Interviews with top managers at Credit du Maroc revealed important insight for this paper. Generally, the managers specified that the bank's customer age structure varies between all ages, but there is a significant growth in the use of the younger population, aged between 25 and 40 years old. The most used services are

normal check in accounts and debit card services. The managers also identified that around 10% of their customers possess savings account, but most of their clients use their normal check-in account to save their money. Merely 15% of their customers have an active pension fund. The reasons that they attributed to this are either lack of familiarity with the services, inadequate advertising of the services, or lack of trust in financial institutions to save their money.

Most managers agreed that implementing a financial program at primary and secondary levels could help future generation be more financially wary and active. At local levels, one manager proposed small-scale classes and presentations by local bank branches to promote their products and educate the population with existing tools that may be beneficial to them. At national levels, managers believed that the national educational system should make changes to incorporate this type of education and put more emphasis on mathematical and economics classes. The managers agreed that improvements in the literacy of future generations would also improve the country's economic and financial standing as a whole. It could improve individual debt through better money management and financial understanding.

5. ANALYSIS

5.1 Analysis of Descriptive Statistics

Illiteracy still remains existent within the Moroccan young population, and more commonly amongst the male population. According to UNICEF (2013), Moroccan primary school participation was 96.8% for males and 95.6% for females; and secondary school participation was 38.7% for males and 36.1% for females in 2012. A significant percentage of the population does not use financial institutions to save money, as they prefer to save money at home or do not actively save money. This is in line with the PISA 2012 Results (OECD, 2014), which tests financial literacy across 13 OECD countries. These results reveal that most students would save money are likely to have higher financial knowledge than people who would buy something without actually considering if they can afford it. The study explains that this type of behavior is likely to be related "to financial behavior, perseverance and openness to problem solving" (OECD, 2014). In Morocco, this differences in saving behavior can be linked to family traditions and general distrust in Moroccan financial institutions, as was found in the survey conducted.

In terms of financial concept awareness, the Moroccan young population is not very advanced. In addition, the young population find money management difficult as a large percentage have trouble covering their living costs with their monthly income and paying their bills on time. Financial understanding is also mediocre. Many respondents were aware of certain concepts including high-risk yields to high returns, but were not aware that one can reduce the risk of an investment through diversification. This was also further asserted in Ali et al.'s (2014), which shows that higher financial education can improve financial understanding and concept awareness. A significant percentage of the young population claimed that they did not possess the basic necessary financial skills to tackle day-to-day decisions and that they would have highly benefited from an increased financial education at primary and secondary school levels.

5.2 Benchmarking Analysis

Discrepancies can be noted due to differences in cultural dimensions and the state of the economies between Morocco and the United Kingdom. However, the differences between the two countries could be used to Morocco's advantage in introducing a suitable financial education program. For instance, the high power distance could be used to give teachers and educators more assertion and influence over their students in implementing a new financial program. This was in line with Ali et al.'s (2014) study, which asserts that "that those who consider teachers trustworthy with money matters and those who discuss money matters with parents and teachers score more highly in financial understanding". The collectivist attribute of the population can be used to endorse team projects and group games to make the learning process more amusing and effective. Morocco's short-term orientation can be viewed as a shortcoming for the country, which could be tackled with the new program to help the population make more long-term decisions and commitments.

According to Goyette (2015), this system should teach the younger generation basic money skills covering financial topics including "wages, taxes, credit, debt, financial risk, and an understanding of financial products and services. It should include basic product and financial concept description". The curriculum should also incorporate economics courses and concentrate on enhancing mathematical skills by raising passing grades for students. It should provide students with the necessary management skills to enable them to access national managerial and administrative positions. The program should include teacher-

training programs, including certification training as well as online guidance tools, to help professors use the right tools to educate their students.

6. CONCLUSION

This pilot study provides a general overview on the current financial awareness and understanding of the Moroccan young population. The findings of the study show that a financial literacy program would be beneficial by improving financial management, money spending and saving, and general country economic standing. Increased financial literacy can improve money expenditure, financial concept awareness, and financial notion understanding. People with higher financial literacy are more likely to save money, better dispense their income, and manage for their future careers and life plans. However, a comprehensive study, which covers the entire Moroccan population, and experimental testing, should be subsequent research to this study to make objective inferences about the implementation of a financial literacy program on a nationwide level. This study provides beneficial insight for both the current Moroccan population in understating their international standpoint with regards to financial literacy, and also provides general recommendations for affluent policy makers in improving the current primary and secondary education systems. This program has an aim to put Morocco affront of its international counterparts who have previously encountered financial hardships and difficulties.

Several limitations could have affected the findings of this study. The location and timing of the data collection may have provided bias information. The location of the data collection setting, could have excluded certain segments of the population. The survey was translated in two languages, which may have caused changes in the meaning of the questions. Since this is a pilot study, only three cities were visited in Morocco. Furthermore, a benchmarking of the United Kingdom, based on outcomes rather than theory, could be beneficial in understanding the transferability of the program. In addition, the survey could have been conducted at more locations including cities, but also rural areas of Morocco. This would be the next step of this pilot study in providing comprehensive findings and analysis of the entire Moroccan population with regards to youth financial literacy.

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