Determinants of Financial Literacy Among Working Local Professionals in the Region of Mecca, Saudi Arabia

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Abstract

Due to the new economic reforms in Saudi Arabia and the introduction of the value-added tax, there is an increased need to enhance the public workers’ financial literacy. Based on previous studies, financial literacy among the Saudis is generally poor. The objective of this study is to examine the degree of financial literacy among the civil servants in the Meccan region of Saudi Arabia, identifying the determinants of financial literacy among them. This study used descriptive analysis, ANOVA, and multiple linear regression analysis to analyse the primary data collected from 162 public sector workers. The study results reveal above-average financial literacy among public sector workers. ANOVA test indicates that there is a difference between the monthly income of public sector workers and level of education groups. Nevertheless, the multiple regression analysis shows that financial behaviour and financial attitude are positively affecting financial literacy among public sector workers. This study also recommends some possible ways to enhance, improve, and increase awareness, importance, and the need for financial literacy among public sector workers.

Keywords: Financial Literacy, Financial Attitude, Financial Knowledge, Financial Behaviour

Introduction

Financial literacy is crucially vital to public workers due to their increasing financial responsibilities and the challenging economic situation caused by the new economic reforms. Besides, public workers need to know how to plan for retirement, household budgeting, savings, debt management, investing, and preparing for unforeseen future emergencies. Moreover, public workers should be able to identify sound financial advice and how to use the products of banks and financial institutions. These are essential skills that every public worker should be equipped with to ensure a better future.

The conversion to e-banking and online banking has changed the financial landscape in Saudi Arabia and made it more challenging, raising the need for financial literacy. Al-Somali, Gholami, and Clegg (2009) have shown that many Saudis have not yet adopt e-banking due to their lack of awareness. Additionally, a report by the King Khalid Foundation (2018) showed a low level of financial literacy in Saudi Arabia compared to other countries. Moreover, a study by Boora and Agarwal (2018) showed that the level of financial literacy among Saudi women is generally moderate. Mian (2014) indicated that men in Saudi Arabia are more financially literate than women. Furthermore, a report by the General Authority for Statistics (2018) found
that majority of public sector workers are men at 59.3%, while women represent 40.73% of the total public workers in Saudi Arabia. The disparities between men and women degree of financial literacy in Saudi Arabia will also raise a concern regarding the degree of financial literacy of the public sector workers.

There is a lack of studies on the degree of financial literacy among Saudis. Additionally, no papers could be found that examine the determinants and the degree of financial literacy among public sector workers in the region of Mecca, Saudi Arabia. Moreover, the public sector is one of the largest contributors to the economy; therefore, public sector workers must be financially literate. Hence, this study aims to investigate the determinants and the degree of financial literacy among public sector workers in the region of Mecca, Saudi Arabia. The sub-objectives of this study are to identify whether financial knowledge, financial behaviour, and financial attitude affect financial literacy among public workers in the region of Mecca, Saudi Arabia.

Literature Review

The importance of financial literacy is growing, and the benefit of financial literacy has started to attract the attention of scholars, government, society, and organisations. There are differences of opinions on what constitutes financial literacy in literature, which leads to the absence of a clear and consistent definition of financial literacy.

OECD (2013) defined financial literacy "as the ability to understand and develop the necessary skills and confidence required to become more conscious of financial products, risks, concepts, and opportunities, in addition to forming sound financial decisions and eventually achieving financial welfare". Lusardi (2015) described it as "the ability to make an informed decision regarding debt and how to apply basic financial knowledge of interest compounding, based on daily financial decisions". Lusardi (2008a) defined it as the ability to use financial knowledge and apply it to a specific situation at hand to make effective decisions. They also added to the previous definition of financial literacy in Lusardi (2008b) that is "the knowledge of understanding complex financial concepts, such as the ability to distinguish between stocks and bonds, how mutual funds work, and the basic understanding of asset pricing".

Lisa Xu (2012) defined the term financial literacy as a set of different concepts such as financial awareness, knowledge, and skills that encompass the ability to understand financial products, concepts, institutions, and the ability to calculate compounded interest concerning financial management and planning. Huston (2010) indicated that there is more than one definition of financial literacy, to be precise, there are eight definitions that concentrate on knowledge, ability to make well-informed judgments and the ability to achieve the intended results and the adequate skills to realize the intended results. Additionally, he differentiates between financial literacy and personal financial literacy. Huston (2010) defined financial literacy as the ability to manage money through informed judgment and sound decisions-making. While he defined personal financial literacy as the capacity to read, communicate, analyse, and manage personal financial conditions that affect personal financial welfare. Different scholars have defined financial literacy in different ways; however, the operational definition in this research will be as defined by Lisa Xu (2012).

Financial Literacy Levels in Saudi Arabia

The King Khalid Foundation (2018) conducted a study to examine financial inclusion in Saudi Arabia and how to reach out to excluded people. The research study also focused on measuring financial literacy and comparing it among the adult population with other countries. It has been found that only 31% of adults in Saudi Arabia are financially literate compared to 36% in Malaysia, whereas in Norway, it was as high as 71%. However, as many as 6.9 million in Saudi Arabia are not financially included as they do not have a bank account or any investment. Women, the less educated individuals,
low-income groups, people outside the workforce, and people living in rural and remote areas suffer financial exclusion. This shows that financial illiteracy is low across Saudi Arabia compared to other countries and is mostly concentrated among a few social groups.

Mian (2014) investigated the financial literacy levels among Saudi investors and its impact on their financial decisions. The study also covered numerous demographic variables linked to financial literacy. The study found that males are more financially literate than females, and that older people have higher financial literacy compared to young people. Furthermore, they also found that the current work situation and education level had no significant impact on financial literacy in Saudi Arabia. The study concluded that people with high financial literacy are more likely to engage in the stock market and retirement planning. The study also found that financial literacy is negatively related to the need for financial advice.

Financial Knowledge and Financial Literacy

Lusardi and Mitchell (2014) and the President’s Advisory Council on Financial Literacy’s (PACFL) (2008) emphasized that financial knowledge can influence financial planning and behaviour cost-effectively. According to them, financial knowledge is a key determinant of how well people make financial decisions and execute financial transactions. Financial knowledge allows them to invest, save, borrow, and prepare the retirement plans. However, while investment increases their financial knowledge that subsequently allows them to invest in complex assets, their investments do not inherently increase their financial knowledge.

A lack of financial knowledge may prevent people from investing in more complex assets. Nevertheless, previous studies have found that financial education programs in the US helped improve financial decision-making. Therefore, it can be said that financial knowledge results in enhancing the financial literacy which then results in sound financial decision-making. The financial knowledge gaps are beyond and above the effects of education, income, sex, race, and other factors that ultimately affect the financial literacy level of an individual which then ultimately affects financial decision making. Since the existing literature shows that financial knowledge and financial literacy are two very closely related yet separated constructs, it makes it worth examining the relationship between them.


Financial Behaviour and Financial Literacy

Financial behaviour relates to the choices and decisions taken by people with respect to their finances (National Endowment for Financial Education (NEFE), 2013). Capuano and Ramsay (2011) claimed that good financial behaviour is a result of the acquisition of financial skills and knowledge that provides the basis for effective financial decisions. Chaulagain (2017) also conducted a study to examine the relationship between financial literacy and financial behaviour among small borrowers. The study found that financial literacy plays a vital role for small borrowers and low-income individuals. They borrow small sum of money from licensed financial institutions. Financial literacy among small borrowers has been shown to determine their financial attitude and behaviour, such as their trading risk and investment return. A lack of financial literacy results in over-confidence and behavioural prejudice resulting in poor financial behaviour, adversely impacting their financial well-being. The study found that there is a significant relationship between financial behaviour and financial literacy. Therefore, the systematic enhancement in financial literacy among small borrowers is required to change their financial behaviour and attitudes. However, the NEFE (2013) analysis found the contrary results. They found that there is no or poor correlation between financial behaviour and financial literacy.

Grohmann (2017) conducted a study to analyse
the relationship between financial literacy and financial behaviour. The study showed that there was a constructive and positive relationship between the two variables. Individuals with a high level of financial literacy are eight percentage points more likely to have a savings account, a fixed deposit account, and invest in the stock market, whereas individuals with a low level of financial literacy are less likely to have life insurance. Financial literacy thus leads to informed decisions-making on savings, borrowing, and risk diversification decisions, contributing to positive financial behaviour. This leads to the second hypothesis as follows:

**H2:** Financial behaviour positively associated with financial literacy among public sector workers in the region of Mecca, Saudi Arabia.

**Financial Attitude and Financial Literacy**

According to Amelawati and Setiyani (2018), financial attitude is defined as "a state of mind, opinion, and judgment of a person about finance". They conducted a study analysing the influence of financial attitude, experience, and socialisation on financial behaviour and the mediating role of financial literacy. The study covered 910 students of Economics at the State University of Semarang. The study found that financial behaviour is positively influenced by financial attitude, and financial literacy also has a positive influence on financial management behaviour. Furthermore, a positive financial attitude leads to a positive influence on financial literacy.

Rai, Dua, and Yadav (2019) have conducted a similar study on the financial literacy and financial attitude of 394 working women in Delhi, India. The study found that there is a significant correlation between financial behaviour and financial attitude with financial literacy among working women. Past studies by Susan and Djayadikerta (2017) have found that financial behaviour is positively influenced by financial attitude. A positive financial attitude leads to enhanced financial literacy. Bongomin et al. (2017) study focused on the financial literacy components that contribute to financial inclusion of poor households in rural areas of Uganda. The study found that only financial attitude of rural people of Uganda had an impact on their financial literacy and predicted their financial inclusion. However, in contrast to those studies, Listiani (2017) studies found that financial attitude had no impact on financial literacy or financial behaviour. Overall, previous studies have shown the importance of financial attitude and its impact on financial literacy. This leads to the formulation of the third hypothesis:

**H3:** Positive financial attitude positively associated with financial literacy among public sector workers in the region of Mecca, Saudi Arabia.

**Demographic Determinants of Financial Literacy**

Many studies have been conducted on the socio-demographic and family characteristics that determine the financial literacy level among individuals. Some of the socio-demographic and family characteristics, including age, gender, income, education, and marital status, have been described as having an impact on financial literacy.

**Income:** In Saudi Arabia, 35% of respondents living in wealthy households were literate, while only 27% of poor households in Saudi Arabia were financially literate. Wagner (2019) studied financial literacy among individuals with different levels of income and education. The results have shown that individuals with lower incomes and education have lower financial literacy levels; hence, they need further financial education.

**Marital Status:** Yousef (2017) study of financial literacy ratings among students in Saudi Arabian college found that married male participants are more financially literate compared to single male participants, because single male participants tend to rely on their parents for financing. On the contrary, single female students are more financially literate than married females because married females are financially dependent on their husbands.
Education Level: Natoli (2018) study found that educational level has the most decisive impact on financial literacy compared to other socio-demographic factors such as income, gender, and age. According to Yousef (2017), students who are more educated have a level of literacy level than students who are less educated, and family education and background also influence financial literacy. Overall, there is a significant need to educate Saudi citizens about finance in a such way that they make educated financial decisions and are more financially literate.

Gender: Boora and Agarwal (2018) study found that income, age, gender, and education all influence financial literacy among women in Saudi Arabia. However, it was also found that women whose family members have the knowledge, savings, and stocks have better financial knowledge and risk diversification and make consultative decisions with regards to financial matters. The study also concluded that there is no financial literacy among women, and financial illiteracy is the same among working and non-working Saudi Arabian women. Thus, there is a strong need for improving financial literacy among women.

Wagland and Taylor (2009) study showed that gender is an important variable that impacts financial literacy levels. Women have less financial knowledge which affects their financial decision-making and behaviour and ability to achieve financial security. Herdjiono et al. (2018) conducted a study on the differences between men and women with regards to their financial literacy and behaviour. The study found that there is no difference between men and women in their financial attitude, knowledge, or behaviour. However, these study results were limited only to Indonesia. Thus, past studies have given mixed results on the effect of gender in financial literacy.

Age: Lusardi and Mitchell (2014) conducted a study on financial literacy among young people aged of 12-17 in the United States. The study found that financial literacy among young people is low; less than one-third of young adults possess a basic knowledge of financial concepts like inflation, interest rates, and risk diversification. The study also found that financial literacy is strongly related to socio-demographic variables of youths, such as education and gender, and family characteristics. Educated males with a family having retirement savings and stocks are more likely to know about financial concepts and risk diversification than a less educated female whose parents are not wealthy. Finke et al. (2016) study focused on old age and financial literacy. The study concluded that the decline in intelligence in old age might have an impact on the ability of individuals to manage their finances effectively. A large sample of individuals over 60 were surveyed in the study and found that there was a decline in financial literacy among people over 60 years of age and a similar decline was observed among older people, stockholders, and college-educated respondents. Development of Hypothesis: Based on the previous studies on age, gender, income, education, and marital status, it has been shown that financial literacy can differ among demographic groups. This leads to the fourth hypothesis:

H4: There is a difference in financial literacy between demographic groups such as income, marital status, education, gender, and age among public sector workers in the region of Mecca, Saudi Arabia.

Research Method

This study used a survey methodology to accomplish the objectives of the study. Survey data were collected using a structured questionnaire as an instrument to evaluate the level of financial literacy. The determination of the sample size is based on the statistical model proposed by Kothari (2004),

\[ S_x = S \times \sqrt{N-n(N-1) \times (n-1)} \]

The overall sample size for this study was 162. The descriptive and inferential analysis is used to examine the level of awareness regarding financial literacy among public sector workers in the region of Mecca, Saudi Arabia (the total number of public workers is 190,997). This study selected the region of Mecca as the research area due to its geographical and
economic significance. The study also used a non-random sampling technique to gather the data from a representative sample. Data collected from the final field study was captured in the SPSS and analysed to provide the required statistical results. This study adopted different statistical analysis methods to address the research questions. The first method employed was descriptive analysis; the second method was one-way ANOVA, the third and final method was multiple linear regression analysis.

Data Analysis and Discussion

Several demographic factors have been ascertained in this study to understand the different backgrounds of the respondents. Discussions in detail would include age, gender, marital status, monthly income, experience level, level of education, city of residency, and sector of the respondents. Table 1 illustrates the respondents' demographic backgrounds based on gender, marital status, income, experience level, level of education, city, and sector. More than half of the respondents are above 40 years old which represent 57%, and female respondents are 54% of the total respondents. Moreover, 76% of the respondents were married, and 70% of the respondents indicate that their income was more significant than 10,000 SR. Additionally, 41% of the respondents are in middle management, 61% of the respondents hold a bachelor degree, 83% of the respondents live in Jeddah, and 67% of the respondents work in the governmental sector.

The T-test analysis was used to analyse the disparity in financial literacy between gender groups. Table 2 indicates that there is no significant difference between male and female levels of financial literacy at a significance level of 0.05. With this finding, there is a lack of support for H4. Therefore, this finding is consistent with Herdjiono et al. (2018) study which investigated the differences between men and women with regards to their financial literacy and behaviour.

One-way ANOVA test was used to analyse the differences between the groups' marital status, income level, and education level concerning financial literacy. Based on Table 3 the result shows that there is a significant difference between the different monthly income levels and between the education level groups at a significance level of 0.05 (indicating support for H4 in terms of monthly income levels and education level). Moreover, the findings are consistent with Wagner (2019), which found that different level of income associated with different level of financial literacy, the higher the level of income, the higher the financial literacy. Table 3 shows no significant differences between marital status groups at 0.05. Furthermore, the findings are inconsistent with Yousef (2017), where he found a difference between the married and single's financial literacy.
Pearson, a correlation coefficient analysis, is conducted to identify the direction of the relationship between the variables and the strength of the relationship direction among the variables. Additionally, it is also conducted to identify any multicollinearity between the independent variables. Table 4 reveals that there is a high positive relationship between the variables. Moreover, the correlation coefficient between financial literacy and financial knowledge is 0.480 and a significance level of 0.000 at $p = 0.01$. In addition, there is a positive correlation coefficient between financial literacy and financial behaviour, at 0.662 and a significance level of 0.000 at $p = 0.01$. A high positive correlation coefficient between financial literacy and financial attitude, at 0.748, exists at a significance level of 0.000 at $p = 0.01$.

The purpose of conducting the multiple linear regression analysis is to measure the effect of financial knowledge, financial behaviour, and financial attitude on financial literacy and the significance of the effect. Table 5 reveals that the financial behaviour and financial attitude have a significance level (p-value) of less than 0.01. Additionally, the financial attitude has the highest $\beta$ coefficients at 0.551. Therefore, financial behaviour and financial attitude positively affect financial literacy among public sector workers in the region of Mecca, Saudi Arabia (which also offers support for H2 and H3). Moreover, the financial knowledge significance level is more than 0.1. Therefore, financial knowledge has no effect on financial literacy among public sector workers in the region of Mecca, Saudi Arabia. With this finding, there is a lack of support for H1.

<table>
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<tr>
<th>Coefficients Model</th>
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<th>Standardised Coefficient</th>
<th>$t$</th>
<th>Significance</th>
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<td>-0.11</td>
<td>1.02</td>
<td>0.310</td>
</tr>
</tbody>
</table>

**Conclusion**

The results of the study show that financial behaviour and financial attitude are the positive determinants affecting financial literacy among the public sector workers of Mecca, Saudi Arabia. The findings of the study show an above-average degree of financial literacy among public sector workers in the region of Mecca, Saudi Arabia. This study also recommends some possible ways to enhance the awareness of, the importance of, and the need for financial literacy among public sector workers. Therefore, the government should increase its efforts to implement financial literacy courses and workshops targeting public sector workers. Moreover, the findings revealed that the majority of public sector worker is well educated. Thus, it is an added value to future public sector workers to learn about financial literacy in universities and schools. Financial literacy will enhance their lifestyle and will educate them on how to handle their financial burden whether they have house loans, car loans, or other financial obligations. Moreover, they should learn more about financial attitude and behaviour, which will give them better judgment and better financial choices thus increasing their financial literacy.

This study has some limitations which need to be considered. Public workers are the majority of the labour force in Saudi Arabia. To get better results, it would be favourable to include private-sector workers in the study too. The second limitation is the sample size: 162 is considered a small sample. To come up with more comprehensive results, a larger sample would be better for more accurate and reliable results. The final limitation is the small number of independent variables used in the study. Thus, by increasing the number of the independent variables, one could enhance the accuracy of the results.

**References**


