

**EFFECT OF GENDER ON FINANCIAL LITERACY IN NAIROBI
COUNTY**

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REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF
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DECLARATION

This research project is my genuine work. It has not been submitted for a degree examination at any other university.

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This research project has been presented for defense with my approval as university supervisor.

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DEDICATION

Exceptional dedication of this project to my Mum Reginah Mwaura for encouraging me throughout my academic journey, my siblings Tabby, Stellah and Hillary and my friends for their moral and emotional support which has reinforced my completion of the project.

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LIST OF ABBREVIATION

FINACCESS	: Financial Access
FL	: Financial Literacy
G20	: Group of Twenty
GDP	: Gross Domestic Product
IFNE	: International Network on Financial Education
KNBS	: Kenya National Bureau of Statistics
SPSS	: Statistical Package for Social Sciences

ABSTRACT

Women have lower knowledge level making it difficult for them to perform financial calculations which eventually hinders their ability to make responsible financial decisions. In patrilineal communities, men are the bread weaners and know from early childhood that they will lead household financial decisions. In such societies, men are highly likely to have superior financial knowledge. The research objective was to ascertain the effect that gender has on financial literacy in Kenya. The particular objectives were to identify difference in the financial literacy levels of men and women and to investigate the extent to which gender affect financial literacy. The study was informed by gender schema theory, theory of planned behavior and prospect theory. The study utilized a descriptive research design. 2,192,452 males and 2,204,376 females formed the target population of the study. A sample of 191 men and 193 women was derived by utilizing the Cochran formula. The research made use of primary sources of data majorly with the utilization of a closed ended questionnaires as the study data collection tool. This was a cross-sectional study. The study applied both descriptive statistics as well as inferential statistics that entailed multiple linear regression analysis. A multivariate analysis was employed, each dependent variable was regressed against the independent variables. Ordinal regression was done for the first two models entailing financial attitude and financial behaviour as the respective response variables because the analysis technique predicts an ordinal dependent variable. For the third model entailing financial knowledge as the response variable, a multinomial logistic regression was utilized because the analysis technique is used to predict a nominal dependent variable. The study findings established that the financial literacy aspects entailing financial attitude, behaviour, and knowledge were exhibited to a very large extent among individuals living in Nairobi County. Another finding was that being a female would lead to poorer financial behaviour. The study also revealed that people living with partners are more likely to have better financial behaviour than people who are divorced/separated. Further study findings were that the background and demographic characteristics do not significantly influence the financial literacy aspects entailing financial literacy and therefore cannot significantly predict financial literacy. Policy recommendations are made to the Kenyan Ministry of Public Service and Gender to identify and implement gender sensitive financial literacy training programs accommodating the distinct characteristics and challenges of genders. Recommendations are also made to curriculum and education policy makers to make personal finance a required course in learning which will significantly equip the female gender with fundamental knowledge and skills to prosper in modern financial environment. Recommendations are made to the general Kenyan community to increase the literacy levels of the female gender because elevating gender financial literacy differences by instituting interventions will help in bettering the society as a whole. Finally, recommendations are also made to employers to boost financial literacy levels among the female gender by for instance, organizing seminar-based programs that are of an interactive nature; seminars on retirement which can promote accumulation of wealth and cushion financial insecurity in retirement as this will in turn boost employee productivity.

CHAPTER ONE

INTRODUCTION

1.1 Background

Financial literacy is defined as having skill, behavior, awareness and attitude required to make significant financial decisions and eventually attain financial wellbeing (Mwatondo and Wekesa, 2019). Gender is both a social and relational quality reproduced or produced by society, which changes over time and across cultures (Angelica, 2015). Some studies show that women have lower knowledge level making it difficult for them to perform financial calculations which eventually hinders their capability to make responsible financial decisions (Chen and Volpe, 1998). In patrilineal communities, men are the bread weaners and know from early childhood that they will lead household financial decisions. In such societies, men are highly likely to have superior financial knowledge.

The study was informed by gender schema theory, theory of planned behavior and prospect theory. Developed by Martin and Halverson (1981), gender schema theory implies that male and female may be disposed to stick to certain common expectations and requirements as they grow up. A practicable cause as to why women lesser educated than men regarding financial literacy is ascribed to the way individuals are raised by such social identity realm. Ajzen (1991) in the theory of planned behavior focused on explaining most behaviors which people can have control over. This theory has been used to predict different types of behavior, including financial behaviors such as investments and saving (Kennedy & Wated, 2011). Prospect theory by Tversky and Daniel Kahneman (1992) describes how individuals choose among probabilistic alternatives which entails a risk and the probability of varying outcomes is unknown.

Investors that are financially literate evaluate the relationship between risk and return and selects the alternative that yields the best outcome. Financial literacy gender gap is steady irrespective of socioeconomic background, institutional and cultural factors (Bucher-Koenen, 2017).

1.1.1 Gender

Angelica (2015) defines gender as both a social and relational quality reproduced or produced by society which changes over time and across cultures. Some cultures require men to be dictatorial, strident and concerned about material wellbeing, and on the other hand, women are required to be tender, low key concentrating on quality of life (Hofstede, 2012).

Quantifying gender gap entails assessing differences between groups of men and women with reference to rights and duties, opportunities and responsibilities (Ann So'rlin,2019). Past studies have measured gender as being male or female. To determine how gender affects an individual's degree of financial literacy, the study will evaluate the performance of each gender on various aspects of financial literacy which include debt administration, financial goals planning, understanding and evaluation of financial products, savings, budgeting and investments.

1.1.2 Financial Literacy

Financial literacy is described as possession of understanding of how money works, how to manage, invest and spend it (Atakora, 2013). Successful financial planning, proper debt control, accurate calculation of interest and knowledge of the time value of money are some of attributes of a financially literate individual. The major principles

of financial literacy comprise knowledge on how to budget, keeping track of spending, paying off debts successfully and appropriate retirement planning.

Financial illiteracy leads to people making substandard financial decisions hence becoming victims of exploitive financial practices (Will Kenton, 2020). Financial literacy greatly contributes to growth and stability consequently affecting socioeconomic levels (Atakora, 2013).

The study borrowed from a literacy test kit by Lursardi (2014) and INFE (2011) in developing a likert scale with questions modified to fit the study objectives. The questions will cover basic financial concepts like budgeting, investment management, debt management and savings.

1.1.3 Gender and Financial Literacy

There is extensive financial illiteracy with individuals lacking understanding of rudimentary financial principles. Several studies indicate that a wide and consistent difference in financial literacy exists between genders (Lusardi and Mitchell, 2014). Women plan less and would therefore be more unprepared for retirement compared to men (Lusardi and Mitchell, 2008).

Damian and Sylwia (2018) in their study on gender differences in financial behaviors identify that male and female portray distinct financial behaviors. Most young men mention money as their reason for happiness, are more active in financial markets thus gaining more returns from financial instruments, are highly likely to have debit cards, are risk takers and invest in bonds or shares.

In a study on gender contrast in financial management amidst college students, Lailly, Leila and Hamidreza (2011) established a clear distinction on how men and women manage finances. Female students demonstrated better financial management and spending behavior while male students portrayed better saving habits.

1.1.4 Financial Literacy in Kenya

In Kenya, only 38% of adults are financially literate. Comparing men and women, only 36 % of women are financially literate, this portrays a gender gap in financial literacy (Lursardi, 2017).

FinAccess household survey (2019) report indicates that financial access gap between male and female was found to be closing though there are still disparities with access to finance by male being higher than that of female. Digital financial services were found to offer the ideal market-based remedy in reducing the gap of financial services usage between male and female. The gap in usage of mobile money between the two-gender lowered to 7 % in 2019 compared to 8 % in 2016. Gender gaps were 14 % and 13 % for banks and insurance respectively in 2019 down from 16 % and 13% in 2016. FinAccess concludes that promotion of financial literacy is important for all gender.

This study narrowed down to Nairobi County. The county has a population of 4,397,073 per 2019 census. Out of the total population 23,548,056 are Male while 24,014,716 are Female.

1.2 Research Problem

Roughly 3.5 billion global adult population, which is an estimated 77%, majority from developing economies, have limited understanding of fundamental financial concepts, in most of the economies globally, men better understand fundamental financial concepts compared to women. Globally, 30% of women are financially literate compared with 35% of men. Financial literacy gender gap constantly occurs in different countries within both developed and developing economies (Lursadi, 2017). It is important to understand financial literacy levels of a society since financial literacy boosts investors' confidence for sound financial management (Jariwala, 2015).

A study by Lursardi (2017) indicates that in Kenya only 38% of adults are financially literate. Comparing men and women, only 36 % of women are financially literate. This portrays a gender gap in financial literacy. FinAccess household survey (2019) found that the gap in financial access between male and female is shrinking though disparities still exist with access to finance by male being higher than that of female. This study aims at identifying the current effect of gender on financial literacy in Nairobi County.

In evaluating gender gap from a global perspective Hasler and Lursadi (2017) established that of majority developed economies, Italy was leading in percentage financially illiterate people. Only 37% of Italians were in a position to correctly answer the minimum of three out of the four fundamental financial concepts. In addition, among the G20, Italy was found to have the widest financial literacy gender gap. The financial literacy percentage stood at 45% for Italian men compared to 30% for women.

Financial literacy boosts investors' confidence for sound financial management (Jariwala, 2015). To affirm this, Njoroge (2012) carried out a study on how financial literacy is related to success in entrepreneurship in Nairobi county. The study concludes that entrepreneurial success and financial literacy level are positively related.

Men and women contribute to the aggregate financial literacy of a nation. This study sought to ascertain whether being male or female affects one's level of financial literacy, answering the question; what is the influence of gender in financial literacy in Kenya?

1.3 Research Objectives

1.3.1 General objective

The key purpose of the study is to ascertain the influence gender has on financial literacy in Kenya.

1.3.2 Specific objectives

- i. To identify difference in the financial literacy levels of men and women
- ii. To investigate the extent to which gender affect financial literacy

1.4 Value of the Study

The government will see the necessity to identify and implement gender sensitive financial literacy training programs accommodating the distinct characteristics and challenges of genders. The findings will provide significant input for public programs and financial education policies.

The study will inform Kenyan communities on literacy short falls and how to increase their literacy levels and pass it to the younger generation. Where adults persistently possess low levels of financial literacy, it would lead to persistence of gender financial literacy differences for a long time, especially where there are no interventions in place (Lursadi, 2017).

The study will inform theoretical and empirical models adding to the already available literature on financial literacy from where scholars will identify areas of further studies and use the findings for their research.

The findings will guide education policy makers. Making personal finance a required course in learning will significantly equip young people with fundamental knowledge and skills to prosper in modern financial environment. Financial education has a notable constructive impact on financial behavior and financial literacy (Menkoff , 2016)

Another practicable mechanism for growth in financial literacy is financial education provided by the employer. In her study, Lursadi (2004) talks about the effect of seminar-based programs that are of an interactive nature and lays out evidence that seminars on retirement can promote accumulation of wealth and cushion financial insecurity in retirement.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter will give an insight on the various theories that relate to financial literacy. The chapter outlines the assessment of several literatures by various researchers related to financial literacy, particularly the connection between gender and financial literacy levels. The chapter will also highlight recent empirical studies and further insight on financial literacy levels in Kenya.

2.2 Theoretical Framework

Several theories attempt to explain the notion of financial literacy. This study discusses Gender Schema Theory, theory of planned behavior and prospect theory.

2.2.1 Gender Schema Theory

Martin and Halverson (1981) came up with Gender schema Theory. A schema is defined as an arrangement structure that aids in simplifying and categorizing new information. Schema permits children to interpret information relating to events, behaviors, objects, roles, attitudes and sequentially classify these features as either feminine or masculine (Martin and Halverson 1981).

One shortcoming of the theory is that it neglects to represent the manners by which science or social connections sway gender advancement. Pundits of Bem's theory state that it depicted people basically as passive observers in the advancement of sexual

orientation mappings and disregarded the intricate powers that add to the development of gender.

Regarding this theory, a potential motivation behind women not being as proficient as men concerning financial education can likely be ascribed to how people develop along this social character space.

2.2.2 Theory of Planned Behavior

Ajzen (1991) advanced the theory of planned behavior with the intention of explaining every behavior that individuals 'can exercise self-control. The theory makes it clear that an individual's behavior is speculated by intention, anticipated attitude regarding the behavior, subjective norms, behavioral intention, social norms, perceived control and perceived power. An attitude regarding a behavior is interpreted as one's negative or positive assessment of the behavior about the individual's beliefs. Behavioral intention are provocation factors that control a particular behavior. A subjective norm is an individual's acknowledgement of whether noteworthy referents ratify the behavior. Social norms can be defined as conventional rules of behavior in a certain group of people or the wider cultural background. Perceived control refers to supposed difficulty of executing the behavior. Perceived power is supposed presence of elements that may impede or facilitate execution of a behavior.

Critics of the theory states that it exclusively focuses on intentional reasoning disregarding unconscious impact on behavior (Sheeran, Gollwitzer & Bargh, 2013). Scrutiny also indicate that TPB measures do not account for most of the inconsistency in observed behavior. For instance, people who intend certain behaviors and eventually fail to act are not addressed by the theory (Orbell & Sheeran, 1998).

The theory has been significant in predicting several types of behavior, as well as financial behaviors such as saving, debt management and investments (Kennedy & Wated, 2011). This study used the theory to determine what influences individual's decisions regarding elements of financial literacy; Investment management, debt management, savings and budgeting that will be compared between different genders.

2.2.3 Prospect Theory

This theory was initially advanced in 1979 but farther modified in 1992 by Daniel Kahneman and Amos Tversky. The theory outlines how individuals choose between highly likely alternatives where risk is anticipated, and the likelihood of different results is unknown. The theory contemplates isolation and certainty effects. Certainty effect states that individuals prefer guaranteed outcomes over likely ones, while the isolation effect states that individuals counter similar particulars when deciding. Prospect theory suppose that gains and losses and are estimated differently, and individuals settle on decisions based on anticipated gains and not losses.

One of the criticisms cites absence of psychical explanations for the process highlighted by the theory. This criticism emanates from other psychologists who state that components such as human effective and emotional responses that are crucial in the decision-making procedure are lacking in the model.

Prospect theory was used to explain financial literacy considering that financially literate investors takes initiative to assess the interrelation between risk and return

before choosing the alternative that yields the most profitable outcome. The outcome will be compared between genders.

2.3 Determinants of Financial Literacy Levels

2.3.1 Gender

Women have been found to encounter considerable difficulty in carrying out financial computations and minimal financial knowledge level, that eventually makes it challenging to make liable financial decisions (Chen and Volpe, 1998).

In both developing and developed countries, women evaluate their financial knowledge level cautiously (Lusardi and Mitchell, 2011). Most communities in Kenya are patrilineal, men are the bread weaners and know they would be in charge of household financial decisions right from when they are young. In such societies, men are more likely to be conscious regarding financial knowledge.

2.3.2 Occupation

Individuals with relatively longer work experience are faced with several financial situations, which causes them to obtain more knowledge, thus making it easy for them to analyze complex financial information and provide a basis for making effective decisions (Chen and Volpe 1998). Unemployed or unskilled workers have lower contact with financial cases, hence showing lower performance (Kim & Garman, 2004). Working arrangements has a major impact on financial behaviors and attitudes, acknowledging individuals whose income is steady are better placed to plan and organize their financial life (Calamato, 2010).

2.3.3 Age

Young and elderly people have minimal levels of financial literacy compared to the middle aged (Gabaix, & Laibson, 2009). In their study, Mitchell and Lusardi (2011) established that individuals whose age group ranges between 25 and 65 scored 5% more questions compared to those whose age is below 25 or above 65 years. Further to this, Scheresberg (2013) identified that people of 24-35 age bracket have acquired high cost debt.

2.3.4. Education

Amadeu (2009) identified that more exposure, as one goes through specialized or undergraduate courses, to disciplines related to finance has a constructive influence on the day-to-day financial habits. Students in the fields of Finance, Accounting and Administration portrayed higher levels of financial knowledge.

Additionally, Lusardi and Mitchell (2011) discovered that people possessing lower levels of educational are likely to give wrong answers to financial questions with others saying they are unaware of the response.

2.3.5 Marital status

Graf and Brown (2013) observed singles to possess a notable disposition to considerably low levels of financial literacy in comparison to those that are married. Generally, when individuals have lower financial literacy levels, they are highly likely to come up with substandard financial decisions which may bring about debts in the long run and this would threaten the health of their relationships (Calamato, 2010).

2.4 Empirical Review

This section will explore details of local and international studies that are relevant to the study topic.

2.4.1 International Studies

Andrea Hasler and Annamaria Lusardi (2017) carried out an analysis on the gap in gender financial literacy from a global viewpoint. They analyzed data from a survey, (S&P Global FinLit Survey), and found that financial illiteracy is extensive, but it is distinctly noticeable among women. Additionally, from a global viewpoint, just 1 in 3 adults exhibited comprehension of fundamental financial concepts. Financial literacy gender gap was identified over countries with varying developments in financial markets and institutional arrangement in addition to different cultural and social context. The conclusion was that the gap in gender financial literacy occurs over countries regardless of the income levels. The motive of this study was to discuss and analyze the worldwide gender gap in financial literacy, focusing on one country enables evaluation of country specific issues that cause gender gap in financial literacy.

Stephan Klasen, Yabibal Walle and Ute Rink (2019) conducted a study on gender gap financial literacy and the part of culture in India using nationally representative survey data. The study finds women significantly less financially knowledgeable than men. However, matrilineal women are more financially knowledgeable than patriarchal women. This is on the grounds that, in matrilineal social orders, women are family heads and know from childhood that they will be liable for family future budgetary and financial choices, they are therefore more probable to have a better financial knowledge.

The study concludes that women are generally less likely to have knowledge of different financial instruments and practices than men, which is a widely observed fact in developed as well as in developing countries. The limitation on the conclusion of the study is that it has been generalized for all developing countries, whereas cultures of some developing countries differ which is a factor that affect financial literacy.

2.4.2 Local Studies

Robert (2013) conducted a research on association linking entrepreneurial success and financial literacy in Nairobi county. He applied random sampling of 27,485 SMEs and administered questions on both SMEs success and financial literacy. The finding of the study was that entrepreneurs with higher levels of financial literacy were more successful in running their businesses. In essence, SMEs that were found to be more successful were those run by entrepreneurs that understood the fundamental financial concepts like time value of money, interest rates, financial risk and risk management. Financial knowledge equips entrepreneurs with greater decision-making expertise which puts them in a favorable position to take risks, borrow and make diverse investments. The conclusion of the study is that entrepreneurs that are financially literate have greater chances to succeed compared to those with lower financial knowledge levels. Financial literacy was deemed to have a positive relationship with formal education since entrepreneurs that held formal education scored higher while those with no formal education scored considerably low.

2.5 Summary of the Literature Review

Empirical evidence points out that financial illiteracy is extensive and more pronounced in women. The financial literacy gender gap is present over countries regardless of a

country's overall income. Low levels of financial knowledge have been found to have wide-ranging outcomes because financial literacy is associated with crucial financial decisions. Few studies have been conducted to establish influence of gender on financial literacy with a specific focus on Kenya. This study aims to fill this gap and establish the influence of gender on financial literacy levels, existence and extent of financial literacy gender gap in Kenya.

2.5.1 Conceptual Framework

Congruous with the objectives of the study, the conceptual framework will illustrate the interaction between predicted and predictor variables. The predicted variable is financial literacy measured using score on the financial literacy test while the independent variable is gender. The control variables are age, occupation, marital status and education which are additional factors that affect financial literacy.

Independent Variable

- **Gender**
- Male
- Female

Dependent Variable

- **Financial Literacy**
- Score from financial literacy test.

Control Variables

- Age
- Marital Status
- Education
- Occupation

Figure 1: Conceptual Model

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter recounts the research design, study population, data collection and analysis methods used. The chapter illustrates how coherent study was carried out to provide dependable and explicit results.

3.2 Research Design

The study adopted a descriptive research design. This research design permits the researcher to explain their comprehension of the problem by granting an opportunity to explore the literature, collection and presentation of facts regarding financial literacy, it was therefore suitable for the study. The research design is suitable for carrying out social research relating to humans as it allows for valid data from collection to analysis and provides precise data to the specified hypothesis (Williams, 2007)

3.3 Population

To scrutinize the impact of gender on financial literacy in Kenya, this study targeted men and women in Nairobi County. Majority of men and women in Nairobi County are involved in economic activities. The study relied on data from Kenya National Bureau of Statistics. In 2019, out of the total enumerated population in Kenya, Nairobi County had a population of 4,397,073 out of which 2,192,452 were male and 2,204,376 female.

3.4 Sampling Technique and Sample Size

A sample size refers to a segment of a populace taken for an experiment or survey (Glen, 2020). A sample is also defined as a subgroup of a larger main group (Bernard, 2013). The study used a sample of 384 individuals both men and women in Nairobi County. To arrive at 384 the researcher used the Cochran formula

The Cochran formula is:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

n_0 ; desired sample size

Z; value corresponding to level of confidence required (95%, standard value of 1.96)

e; percentage maximum error required (5%, standard value of 0.05)

p; projected segment of the population with the element in question

$q = 1 - p$.

It is recommended for researchers to use 50% as the estimation for P since this produces the maximum sample size and enables maximization of variance (Bartlett et al., 2001).

The formula is substituted as below.

$$= ((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 385.$$

Stratified sampling technique was used. The characteristic of importance for the research was gender, to attain significant representation of both genders in the sample, the population was divided into male and female strata. The sample sizes from each stratum was 191 men (49.86%) and 193 women (50.14%). This technique is useful as it enables recreation of the statistical features of the population on a smaller scale.

3.5 Data Collection

Primary quantitative data was gathered on savings, investment, budgeting, spending and debt management for both men and women. This data was collected from men and women above 18 years in Nairobi County. Per 2019 census Nairobi county has the highest population at 4,397,073 9.2%. The county has majority of ethnic groups represented. Thus, focusing on Nairobi County provided a good representation of the financial literacy gender gap.

A close-ended questionnaire was used to gather data as it ensures competent and accurate data standardization. It does not create tension on the respondents, cheap to prepare and distribute. It gives detailed answers to complex problems.

3.6 Data Analysis

Data analysis is thorough examination of data to check for comprehensibility and completeness. Raw data was passed through SPSS. Data was examined by use of both inferential and descriptive statistics. The study made use of frequency, mean and standard deviation mean for the descriptive statistics.

The study used pie charts, bar charts, frequency tables, ratios and percentages for quantitative data. To denote the association between variables, a multiple linear regression model was applied for inferential statistics. The significance values were utilized to determine the significance difference at 95 % confidence.

The assumptions of the regression model were tested for normality, multicollinearity, homoscedacity and statistical significance of regression coefficients.

3.6.1 Conceptual Model

Conceptual model was logit and took the form:

$$Y=F (X1, X2, X3, X4)$$

Where Y: =Financial literacy

X1=Gender

X2=Marital status

X3=Occupation

X4=Level of education

X5=Age

3.6.2 Analytical Model

Analytical model took the form:

$$Y= \beta_0 + \beta_1X1+ \beta_2 X2+ \beta_3X3+ \beta_4X4+ \beta_5X5) + \epsilon_i$$

Where Y: =Financial literacy

X1=Gender

X2=Marital status

X3=Occupation

X4=Level of education

X5=Age

β_0 = the intercept (Value of Y when X is 0)

β_1 =Change Y caused by each X

ϵ_i =Error term

3.6.3 Operationalization of variables

Operationalization is giving a study concept of a variable that can be observed and measured.

Table 3.1: Operationalization of Study Variables

Category	Study variable	Operational variable	Measurement
Independent variable	Gender		Male or female
Dependent Variable	Financial literacy	Knowledge and practice on Saving, investments, time value of money, borrowing, interest rates and budgeting	Likert scale 1-5
Control Variables	Demographics	Age	Number of Years
		Education	University-level education, Technical/vocational education, Secondary school, Primary school, No formal education
		Occupation	Self-employed, Paid employment, Unemployed, Retired, Other
		Marital status	Married, Single, Separated/Divorced, Living with a partner, Widowed

3.6.4 Diagnostic tests

Tests were conducted for Normality, multicollinearity, heteroskedasticity, and statistical significance of regression coefficients.

Normality

Normality dictates that for any fixed value of X, Y is normally distributed.

Null hypothesis expresses that error term is normally distributed while alternative hypothesis expresses that error term is not normally distributed (Mukras, 1993). The null hypothesis state representative distribution as normal. If the test turns out significant, the distribution is then non-normal.

Shapiro-Wilk W test was applied in examining the distribution of the error term. Its basis is the relationship linking the data and the respective normal scores (Ghasemi and Zahediasl 2012).

Multicollinearity

Multicollinearity occurs when control variables are inter-correlated which could adversely affect regression results. A variance inflation factor (VIF) identifies multicollinearity in regression analysis. When the variance inflation factor is 1, there is no correlation; a value of 1 to 5 stipulates average correlation and a value exceeding 5 stipulates high correlation. The higher the VIF, the less dependable the regression results.

Heteroscedasticity

Heteroscedasticity is a structured change in the lay out of the residuals above the scope of measured values. Heteroscedasticity means unequal scatter.

Breusch–Pagan is used to check if variation of errors from a regression is results from the values of the predictor variables, in which case, there is heteroskedasticity. If the p value from the test statistic is below a suitable threshold ($p < 0.05$) heteroskedasticity is presumed and the null hypothesis of homoskedasticity is rejected.

Statistical significance of regression coefficients

It was measured using correlation coefficient whose value spans between -1 to +1. The correlation coefficient measures change in dependent variable resulting from change in independent variable. A higher coefficient approaching +1 indicates a strong relation between the variables under study. The coefficients also determine whether the variables are positively or negatively correlated, a value exceeding 0 shows a positive correlation between the variables while a value below 0 signify negative correlation between variables. The higher the R^2 the more reliable the model.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter covers data analysis, interpretation and an expostulation of the outcomes. The segment is sub-divided into, the origin of study, the target response rate variables, the comprehensive firm characteristics, descriptive statistics, inferential statistics, interpretation and an explanation of the outcomes. Specifically, this chapter gives summaries of data presentations, analysis, and interpretations.

4.2 Response Rate

A response rate refers to total responses obtained divided by the number of target respondents. The response rate is also denoted as the completion rate or return rate and it is usually expressed in percentage form. Information on the rate of response for this research is displayed below.

Table 4.1: Response Rate

Response	Frequency	Percentage
Returned	317	80%
Unreturned	77	20%
Total	394	100%

The study findings exhibit that out of the 394 furnished questionnaires to the target respondents, only 317 responses were made with adequate information and returned which translated to an overall 80% study response rate. This agrees to Mugenda and Mugenda (2010), who opined that a study with 70% response rate and above is sufficient for examination and drawing conclusions.

4.3 Background and Respondent Characteristics

The research was to determine the background and respondent characteristics of all the 317 respondents enlisted in the study. Highlighted are the background and respondents entailing; age, gender, marital status, educational background, and employment status. They constituted the study's predictor variables.

4.3.1 Age

The target respondents were requested to specify their respective ages. This was to determine if age has any bearing on financial literacy.

Table 4.2: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25-34 Years	75	23.7	23.7	23.7
	35-44 Years	169	53.3	53.3	77.0
	45-54 Years	48	15.1	15.1	92.1
	Above 54 years	25	7.9	7.9	100.0
	Total	317	100.0	100.0	

Table 4.2 exhibits that the highest proportion of the respondents that constitutes 53.3% are of the ages between 35 -44. Respondents whose ages range from 25 to 34 constituted 23.7% while respondents whose ages range from 45 to 54 constituted 15%. The least proportion of the respondents that constituted 7.9% were aged 54 years and more. The uneven spread of age maybe an indication of bias although the respondents were randomly distributed.

4.3.2 Gender

The target respondents were requested to specify own gender. This was to determine if gender has any bearing on financial literacy.

Table 4.3: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	132	41.6	41.6	41.6
	Female	185	58.4	58.4	100.0
	Total	317	100.0	100.0	

The study established in Table 4.3 that 41.6% were male respondents whereas 58.4% were female. This departs from the sample sizes from each stratum which were 191 men (49.86%) and 193 women (50.14%).

4.3.3 Marital Status

The target respondents were requested to specify marital status. This was to determine if marital status has any bearing on financial literacy.

Table 4.4: Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	59	18.6	18.6	18.6
	Single	76	24.0	24.0	42.6
	Separated/Divorced	128	40.4	40.4	83.0
	Living with a partner	44	13.9	13.9	96.8
	Widowed	10	3.2	3.2	100.0
	Total	317	100.0	100.0	

Table 4.4 exhibits that the highest proportion of the respondents that constitutes 40.54% are separated or divorced. Respondents that are single constituted 24% while respondents that are married constituted 18.6%. Respondents that are living with a partner constituted 13.9% while least proportion of the respondents that constituted 3.2% were widowed. The uneven spread of the marital status maybe an indication of bias although the respondents were randomly distributed.

4.3.4 Education Level

The target respondents were requested to specify own education level. This was to determine if education level has any bearing on financial literacy.

Table 4.5: Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	University-level education	57	18.0	18.0	18.0
	Technical/vocational education	80	25.2	25.2	43.2
	Secondary school	124	39.1	39.1	82.3
	Primary school	44	13.9	13.9	96.2
	No formal education	12	3.8	3.8	100.0
	Total	317	100.0	100.0	

Table 4.5 exhibits various educational qualifications of the respondents. The highest proportion of the respondents that constitutes 39.1% had attained a secondary school level of education. Respondents that had technical/vocational qualifications constituted 25.2% while respondents that had a university level education constituted 18%. Respondents that had attained the primary school level of education constituted 13.9% while the least proportion of the respondents that constituted 3.8% had no formal

education. The even spread of the number of the respondents' education level is an indication of lack of bias as the respondents were randomly distributed.

4.3.5 Occupation

The target respondents were requested to specify their occupation. This was to determine if occupation has any bearing on financial literacy.

Table 4.6: Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Self-employed	115	36.3	36.3	36.3
	Paid employment	93	29.3	29.3	65.6
	Unemployed	52	16.4	16.4	82.0
	Retired	50	15.8	15.8	97.8
	Other	7	2.2	2.2	100.0
	Total	317	100.0	100.0	

Table 4.6 stipulates the various occupations of the respondents. The highest proportion of the respondents that constitutes 36.3% were self employed. Respondents that were employed constituted 29.3% while respondents that were unemployed constituted 16.4%. Respondents that were retired constituted 15.8% while the least proportion of the respondents that constituted 2.2% had other kinds of occupations. The even spread of the number of the respondents' occupation is an indication of lack of bias as the respondents were randomly distributed.

4.4 Descriptive Statistics

The study settled on descriptive cross-sectional research design since it allows findings generalization, analysis, and variables relation. Among the financial literacy aspects

used were financial attitude, financial behaviour, and financial knowledge. These constituted the dependent variable.

4.4.1 Financial Attitude

The respondents were requested to rate the attributes of their financial attitude. Consequently, financial attitude statistics were derived and the outcomes exhibited in Table 4.7.

Table 4.7: Financial Attitude

	N	Mean	Std. Deviation
Saving is impossible for me/ our family	317	4.2713	1.01362
It is hard to build a personal/family spending plan	316	4.2500	.93478
Money is made to be spent	317	4.2050	.89597
How I manage my money will affect my future	317	4.1451	.92320
It is important to set goals for the future.	316	4.0285	.93731
Composite Mean		4.1800	.94098
Valid N (listwise)	315		

It is depicted from the above outcomes in Table 4.7 that the largest mean of 4.2713 is of the element “saving is impossible for me/our family” which exhibits a Std Dev of 1.01362. The lowest mean is of the attribute “it is important to set goals for the future”, with a mean of 4.0285 and a Std Dev of 0.93731. The attribute “it is hard to build a personal/family spending plan” has a mean of 4.2500 and a Std Dev of 0.93478. The attribute “money is made to be spent” has a mean of 4.2050 and Std Dev of 0.89597. The attribute “how I manage my money will affect my future” has a mean of 4.1451 and Std Dev of 0.92320. The overall elements had a composite mean of 4.1800 with a Std Dev of 0.94098. This gives an implication that most of the respondents exhibited to a very high extent financial attitude.

4.4.2 Financial Behaviour

The respondents were requested to rate their attributes of financial behaviour. Consequently, financial behaviour were derived and the outcomes exhibited in Table 4.8.

Table 4.8: Financial Behavior

	N	Mean	Std. Deviation
I have made multiple active investments (real estate, stocks, bonds, savings)	315	3.9175	1.06157
I frequently borrow from family or friends to pay my bills	316	4.0348	1.08762
I have a budget/spending plan	317	4.1420	1.09170
I set long term financial goals and endeavor to attain them	317	4.0095	1.09800
I have been able to save money in the last 12 months	317	4.0347	1.05034
I consider options from different financial institutions before settling on a financial product	317	4.1199	.98957
Composite Mean		4.0431	1.06313
Valid N (listwise)	315		

It is depicted from the findings in Table 4.8 was that the largest mean of 4.1420 is of the aspects “I have a budget/spending plan”, which exhibits a Std Dev of 1.09170. The lowest mean is of the attribute “I have made multiple active investments (real estate, stocks, bonds, savings)”, with a mean of 3.9175 and a Std Dev of 1.06157. The attribute “I consider options from different financial institutions before settling on a financial product” has a mean of 4.1199 and a Std Dev of 0.98957. The attribute “I frequently borrow from family or friends to pay my bills” a mean of 4.0348 and a Std Dev of 1.08762. The attribute “I have been able to save money in the last 12 months” has a mean of 4.0347 and a Std Dev of 1.05034. The attribute “I set long term financial goals and endeavor to attain them” has a mean of 4.0095 and a Std Dev of 1.09800. All

characteristics had an average mean of 4.0431 with a Std Dev of 1.06313. This gives an implication that most of the respondents exhibited to a very high extent financial good financial behavior.

4.4.3 Financial Knowledge

The respondents were asked some several short quizzes to ascertain their financial knowledge. The findings are enumerated below. Initially, the respondents were asked the following quiz, “Suppose same pair of shoes retails at Ksh 1,000.00 in two different. Store A offers a discount of Ksh 150.00 while store B offers a discount of 10%. What alternative would you go for?”. The findings are exhibited in Table 4.9. The findings display that only 29% of the respondents attained the correct answer, which is “Store A (discount of Ksh150.00)”.

Table 4.9: Quiz 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not know.	42	13.2	13.2	13.2
	Store B (discount of 10%).	183	57.7	57.7	71.0
	Store A (discount of Ksh150.00)	92	29.0	29.0	100.0
	Total	317	100.0	100.0	

The respondents were then asked the following quiz, “Ken and Mercy are age mates. At 26 years Ken began saving Ksh 20,000 a year for 10 years till age 36. At 35 years, Mercy started saving Ksh 20,000 per year for 30 years till age 65. They are both 65 years old now. Who has most money their account (suppose these investments attract same interest rate)?” The findings in Table 4.10 stipulates that 78.9% of the respondents attained the correct answer, which is “Mercy, she saved more money overall”.

Table 4.10: Quiz 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unable to compute	23	7.3	7.3	7.3
	They both have the same amount	43	13.6	13.6	20.8
	Ken, his money has grown for longer period	1	.3	.3	21.1
	Mercy, she saved more money overall	250	78.9	78.9	100.0
	Total	317	100.0	100.0	

The respondents were then asked the following quiz, “Leonard and Catherine had a baby and received monetary gifts, they opt to save the gifts for the baby's education. Which of below will likely yield higher returns over time (18 years)?” The findings in Table 4.10 stipulates that only 17.9% of the respondents attained the correct answer, which is “Stocks and mutual funds”. Equity securities have a higher return than fixed income securities because of the commensurate risk.

Table 4.11: Quiz 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not know	67	21.1	21.8	21.8
	A money market account	121	38.2	39.4	61.2
	A fixed deposit account	47	14.8	15.3	76.5
	Government bond	17	5.4	5.5	82.1
	Stocks and mutual funds	55	17.4	17.9	100.0
	Total	307	96.8	100.0	
Missing	System	10	3.2		
Total		317	100.0		

The respondents were then asked the following quiz, “What is the rationale behind insurance purchase”. The findings in Table 4.11 specifies that only 17.4% of the respondents attained the correct answer, which is, “Protection from a disastrous loss”.

Table 4.11: Quiz 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Boost your standard of living by making fraudulent claims	77	24.3	24.3	24.3
	To gain excellent investment returns	86	27.1	27.1	51.4
	Compensation for a recently incurred loss	99	31.2	31.2	82.6
	Protection from a disastrous loss	55	17.4	17.4	100.0
	Total	317	100.0	100.0	

The respondents were asked the following quiz, “Suppose you have saved Ksh 10,000 an interest rate of 10% per year. What will be the value of your savings after five years? assuming no charges, deposits or withdrawals for the period”. The findings in Table 4.12 specifies that only 18.6% of the respondents attained the correct answer, which is, “Higher than Ksh15,000”.

Table 4.12: Quiz 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not know	10	3.2	3.2	3.2
	Lower than Ksh 15,000	98	30.9	30.9	34.1
	Exactly Ksh 15,000	150	47.3	47.3	81.4
	Higher than Ksh15,000	59	18.6	18.6	100.0
	Total	317	100.0	100.0	

The respondents were asked the following quiz, “A loan with a maturity of 15 years require higher installments compared to a 30-year loan, however, interest payable on the loan is lower”. The findings in Table 4.13 stipulates that only 14.2% of the respondents attained the correct answer, which is, “True”.

Table 4.13: Quiz 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not know	60	18.9	18.9	18.9
	False	212	66.9	66.9	85.8
	True	45	14.2	14.2	100.0
	Total	317	100.0	100.0	

The respondents were asked the following quiz, “A high risk investment yields high returns”. The findings in Table 4.14 specifies that only 19.6% of the respondents attained the correct answer, which is, “True”.

Table 4.14: Quiz 7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not know	67	21.1	21.1	21.1
	False	188	59.3	59.3	80.4
	True	62	19.6	19.6	100.0
	Total	317	100.0	100.0	

The respondents were asked the following quiz, “Net worth is?”. The findings in Table 4.15 stipulates that 32.2% of the respondents attained the correct answer, which is, “Assets less liabilities”.

Table 4.15: Quiz 8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None of the above	22	6.9	6.9	6.9
	Cash inflow minus cash outflow	19	6.0	6.0	12.9
	Income less expenses	64	20.2	20.2	33.1
	Savings less borrowings	110	34.7	34.7	67.8
	Assets less liabilities	102	32.2	32.2	100.0
	Total	317	100.0	100.0	

Finally, the respondents were asked the following quiz, “Increase in inflation rate results to increased cost of living?”. The findings in Table 4.16 stipulates that 25.6% of the respondents attained the correct answer, which is, “True”.

Table 4.16: Quiz 9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I do not know.	40	12.6	12.6	12.6
	False.	196	61.8	61.8	74.4
	True.	81	25.6	25.6	100.0
	Total	317	100.0	100.0	

4.5 Diagnostic Tests

Diagnostic tests were conducted as a precursor to conducting linear regression so as to ensure Best Linear Unbiased Estimates. Diagnostic tests carried out comprise of; homoscedacity tests, normality tests, autocorrelation tests, and multicollinearity tests. Shapiro Wilk test was done for normality, which was supplemented by the Kolmogorov-Smirnov test. Breusch-Pagan test was used to examine homoscedacity, while VIF and Tolerance tests were used to examine Multicollinearity . The autocorrelation test was carried out through the Durbin-Watson stastic.

4.5.1 Normality Test

The normality tests carried out on every variable involved in the study are shown in Table 4.17. In testing for normality of the data, the null hypothesis holds that the data has a normal distribution. The level of significance adopted in the study is 5%. The significance values of both tests of all the data series employed in the study are less than the α (0.05), thus the null hypothesis is rejected. Hence, the data series of the variables are not normally distributed.

Table 4.17: Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
FA	.255	317	.000	.781	317	.000
FB	.203	317	.000	.864	317	.000
FN	.540	317	.000	.215	317	.000
Age	.304	317	.000	.826	317	.000
Gender	.384	317	.000	.626	317	.000
Marital Status	.227	317	.000	.896	317	.000
Education Background	.215	317	.000	.900	317	.000
Which of this best fit your present-day work situation?	.219	317	.000	.846	317	.000

a. Lilliefors Significance Correction

4.2.2 Test for Homoscedacity

The homoscedacity tests for all the predictor variables employed in the study for each response variables are enlisted in Table 4.18 to Table 4.20. The Breusch-Pagan test was applied. There is no direct Breusch-Pagan test of heteroscedasticity in SPSS. However, there is an indirect method of conducting it. The unstandardized and standardized residuals were saved and transformed by squaring them and regressing the resultant variable with every independent variables included in the study. The resulting output in the Analysis of Variance is the Breusch-Pagan test

Table 4.18: Test for Homoscedacity for Financial Attitude

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.543	5	.309	.225	.951 ^b
	Residual	425.692	311	1.369		
	Total	427.235	316			

a. Predicted Variable: RES_1_SQ

b. Predictors: (Constant), Which of this best fit your present-day work situation?, Age, Marital Status, Gender, Education Background

The null hypothesis is that homoscedasticity is there. The level of significance adopted in the study is 5%. Since the significance value obtained in the findings (0.951) is greater than the α (0.05), the null hypothesis is not rejected. Hence, the data series of all the predictor variables are homoscedastic.

Table 4.19: Test for Homoscedacity for Financial Behaviour

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.581	5	.316	.269	.930 ^b
	Residual	366.149	311	1.177		
	Total	367.730	316			

a. Predicted Variable: RES_1SQ

b. Predictors: (Constant), Which of this best fit your present-day work situation?, Age, Marital Status, Gender, Education Background

The null hypothesis is that homoscedasticity is there. Significance level adopted in the study is 5%. Since the significance value obtained in the findings (0.930) is greater than the α (0.05), the null hypothesis is not rejected. Hence, the data series of all the predictor variables are homoscedastic.

Table 4.20: Test for Homoscedacity for Financial Knowledge

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.150	5	.030	.901	.481 ^b
	Residual	10.346	311	.033		
	Total	10.496	316			

a. Predicted Variable: RES_1SQ

b. Predictors: (Constant), Which of this best fit your present-day work situation?, Age, Marital Status, Gender, Education Background

The null hypothesis is that there is homoscedasticity. The level of significance adopted in the study is 5%. Since the significance value obtained in the findings (0.481) is greater than the α (0.05), the null hypothesis is not rejected. Hence, the data series of all the predictor variables are homoscedastic.

4.2.3 Test for Multicollinearity

Results on Test for Multicollinearity of data carried out using Tolerance and Variance Inflation Factors (VIF) are displayed in Table 4.21.

Table 4.21: Multicollinearity Statistics

Model		Collinearity Statistics	
		Tolerance	VIF
1	Age	.985	1.015
	Gender	.966	1.035
	Marital Status	.964	1.037
	Education Background	.950	1.053
	Which of this best fit your present-day work situation?	.974	1.027

a. Dependent Variable: FA

The common rule in statistics is that tolerance values should be larger than 0.1 and VIF values should be lower than 10 and greater than 1. The findings indicate that the tolerance value of all the predictor variables employed in the study exceed 0.1 while the VIF value fall below 10 and greater than 1. Thus, there is no multicollinearity for the predictor variables.

4.2.4 Tests for Autocorrelation

The result on the autocorrelation test carried out using the Durbin-Watson Statistic for each response variables is presented on Table 4.22 to Table 4.24. The Durbin-Watson

statistic ranges from point 0 and point 4. If there exist no correlation between variables, a value of 2 is shown. If the values fall under point 0 up to a point less than 2, this is an indication of a positive autocorrelation and on the contrast a negative autocorrelation exist if the value falls under point more than 2 up to 4. As a common rule in statistics, values falling under the range 1.5 to 2.5 are considered reasonably normal whereas values that fall out of the range raise a concern. Field (2009) however, opines that values above 3 and less than 1 are a sure reason for concern.

Table 4.22: Autocorrelation Test for Financial Attitude

Model	Durbin-Watson
1	1.728 ^a

a. Predictors: (Constant), Which of this best fit your present-day work situation?, Age, Marital Status, Gender, Education Background

b. Dependent Variable: FA

The data used in this model is not serially autocorrelated since it meets the thresh-hold of absence of serial autocorrelation having a Durbin-Watson Statistic of 1.728.

Table 4.23: Autocorrelation Test for Financial Behavior

Model	Durbin-Watson
1	1.608 ^a

a. Predictors: (Constant), Which of this best fit your present-day work situation?, Age, Marital Status, Gender, Education Background

b. Dependent Variable: FB

The data used in this model is not serially autocorrelated since it meets the threshold of absence of serial autocorrelation having a Durbin-Watson Statistic of 1.608.

Table 4.24: Autocorrelation Test for Financial Knowledge

Model	Durbin-Watson
1	1.958 ^a

a. Predictors: (Constant), Which of this best fit your present-day work situation?, Age, Marital Status, Gender, Education Background

b. Dependent Variable: FN

The data used in this model is not serially autocorrelated since it meets the threshold of absence of serial autocorrelation having a Durbin-Watson Statistic of 1.958.

4.6 Multiple Linear Regression Analysis

The attributes constituting the various variables were summarized to create a whole variable. This was achieved by estimating the median value of all the attributes. The cause and effect association between the predictor variables and outcome variable was evaluated using a multiple linear regression model. A multivariate analysis was employed, each predicted variable was regressed against the independent variables. Ordinal regression was done for the first two models entailing financial attitude and financial behaviour as the respective response variables because the analysis technique is used to predict an ordinal dependent variable. For the third model entailing financial knowledge as the response variable, a multinomial logistic regression was utilized because the analysis technique is used to anticipate a nominal dependent variable.

The data did not meet all the First-Order conditions to conducting linear regression, all the data series employed in the study did not meet the condition of normality. Thus, the data series were standardized as a remedy for rectifying non-normality of distribution. The regression analysis adopted a 5% significance level.

4.6.1 Gender and Financial Attitude

When the gender and other background and demographic characteristics were regressed against financial attitude, the findings are displayed form Table 4.25 through to Table 4.28.

Table 4.25: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	532.662			
Final	510.571	22.091	16	.140

Link function: Logit.

The null hypothesis is that model entailing the background and demographic characteristics does not remarkably impact financial attitude. The significance value acquired in the study (0.140) is higher than the critical value of 0.05. Accordingly, the null hypothesis is not rejected. Thus, the background and demographic characteristics do not significantly impact on financial attitude and therefore cannot significantly predict financial attitude.

Table 4.26: Pseudo R-Square

Cox and Snell	.067
Nagelkerke	.075
McFadden	.031

Link function: Logit.

The Co-efficient of Determination (R^2) stipulates digression in response variable because of variations in the predictor variables. From Table 4.26, the Nagelkerke R^2 value is 0.075, a realization that the model entailing the background and demographic characteristics causes a 7.5% of the deviations in financial attitude. Other factors omitted from the model account for 92.5% of the difference in financial attitude.

Table 4.27: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[ZFA = -2.57667]	-2.852	1.146	6.195	1	.013	-5.098	-.606
	[ZFA = -1.41313]	-1.810	1.136	2.538	1	.111	-4.038	.417
	[ZFA = -.24959]	.232	1.135	.042	1	.838	-1.993	2.456
Location	[ZAge=-1.28157]	-.376	.502	.563	1	.453	-1.360	.607
	[ZAge=-.08669]	-.270	.460	.343	1	.558	-1.172	.632
	[ZAge=1.10818]	-.085	.517	.027	1	.870	-1.099	.929
	[ZAge=2.30305]	0 ^a	.	.	0	.	.	.
	[ZGender=-1.18199]	-.374	.227	2.706	1	.100	-.820	.072
	[ZGender=.84336]	0 ^a	.	.	0	.	.	.
	[ZMarital_Status=-1.52674]	.974	.692	1.980	1	.159	-.382	2.330
	[ZMarital_Status=-.56647]	.660	.772	.731	1	.393	-.853	2.172
	[ZMarital_Status=.39380]	1.042	.738	1.993	1	.158	-.405	2.489
	[ZMarital_Status=1.35407]	.718	.789	.828	1	.363	-.829	2.265
	[ZMarital_Status=2.31435]	0 ^a	.	.	0	.	.	.
[ZEdu_Backgrd=-1.52288]	1.064	.635	2.809	1	.094	-.180	2.309	

[ZEdu_Backgrd=-.57258]	.937	.681	1.894	1	.169	-.398	2.272
[ZEdu_Backgrd=.37772]	1.144	.663	2.976	1	.085	-.156	2.444
[ZEdu_Backgrd=1.32802]	.560	.708	.626	1	.429	-.828	1.949
[ZEdu_Backgrd=2.27832]	0 ^a	.	.	0	.	.	.
[ZEmpl_Status=-1.02685]	-1.461	.891	2.689	1	.101	-3.208	.285
[ZEmpl_Status=-.15882]	-1.698	.902	3.544	1	.060	-3.467	.070
[ZEmpl_Status=.70921]	-.891	.911	.955	1	.328	-2.677	.896
[ZEmpl_Status=1.57724]	-1.686	.919	3.364	1	.067	-3.488	.116
[ZEmpl_Status=2.44528]	0 ^a	.	.	0	.	.	.

Link function: Logit.

a. This constant is set to zero since it is dispensable.

The findings in Table 4.27 showcase that there is no significant impact of moving one level for all the predictor variables on the response variable. The reason is significance values of all the dummy variables are greater than the critical significance value (α) of 0.05.

Table 4.28: Test of Parallel Lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	510.571			
General	476.770 ^b	33.801 ^c	32	.381

The null hypothesis affirms that location constants (slope coefficients) are the uniform over response brackets.

a. Link function: Logit.

b. The log-likelihood value can't be expanded farther after attaining highest number of step-halving.

c. The Chi-Square statistic computation is established on the log-likelihood value of the rear reiteration of the common model. Justification of the test is debatable.

The significance value obtained from the test of parallel lines (0.381) is higher than the critical significance value (α) of 0.05. Thus, the findings are dependable.

4.6.2 Gender and Financial Behavior

When the gender and other background and demographic characteristics were regressed against financial behavior, the findings are displayed form Table 4.29 through to Table 4.32.

Table 4.29: Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	828.426			
Final	804.853	23.572	16	.099

Link function: Logit.

The null hypothesis is that model entailing the background and demographic characteristics does not notably impact financial behavior. The significance value obtained in the study (0.099) is greater than the critical value of 0.05. Accordingly, the null hypothesis is not rejected. Thus, the background and demographic characteristics do not significantly impact on financial behavior and therefore cannot significantly predict financial behavior.

Table 4.30: Pseudo R-Square

Cox and Snell	.072
Nagelkerke	.074
McFadden	.023

Link function: Logit.

The Co-efficient of Determination (R^2) stipulates digression in response variable as a consequence of variations in the predictor variables. From Table 4.30, the Nagelkerke R^2 value is 0.074, a discovery that the model entailing the background and demographic characteristics causes a 7.4% of the deviations in financial behavior. Other factors left out of the model explain 92.6% of the variations in financial behavior.

Table 4.31: Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[ZFB = -3.84141]	-5.856	1.428	16.830	1	.000	-8.654	-3.058
	[ZFB = -2.62002]	-3.521	1.065	10.923	1	.001	-5.609	-1.433
	[ZFB = -2.00932]	-2.507	1.038	5.834	1	.016	-4.541	-.473
	[ZFB = -1.39863]	-1.906	1.032	3.413	1	.065	-3.927	.116
	[ZFB = -.78793]	-1.276	1.029	1.539	1	.215	-3.292	.740
	[ZFB = -.17724]	.221	1.028	.046	1	.829	-1.793	2.235
	[ZFB = .43346]	.815	1.028	.629	1	.428	-1.199	2.829
Location	[ZAge=-1.28157]	-.369	.473	.610	1	.435	-1.296	.558
	[ZAge=-.08669]	-.347	.434	.641	1	.423	-1.198	.503
	[ZAge=1.10818]	.336	.491	.471	1	.493	-.625	1.298
	[ZAge=2.30305]	0 ^a	.	.	0	.	.	.
	[ZGender=-1.18199]	-.481	.217	4.935	1	.026	-.905	-.057
	[ZGender=.84336]	0 ^a	.	.	0	.	.	.
	[ZMarital_Status=-1.52674]	1.208	.665	3.304	1	.069	-.094	2.511
	[ZMarital_Status=-.56647]	1.251	.743	2.835	1	.092	-.205	2.707

[ZMarital_Status=.39380]	1.410	.711	3.935	1	.047	.017	2.802
[ZMarital_Status=1.35407]	1.378	.760	3.293	1	.070	-.110	2.867
[ZMarital_Status=2.31435]	0 ^a	.	.	0	.	.	.
[ZEdu_Backgrd=-1.52288]	.714	.609	1.373	1	.241	-.480	1.908
[ZEdu_Backgrd=-.57258]	.100	.651	.023	1	.878	-1.177	1.376
[ZEdu_Backgrd=.37772]	.070	.633	.012	1	.912	-1.170	1.311
[ZEdu_Backgrd=1.32802]	.032	.679	.002	1	.962	-1.299	1.364
[ZEdu_Backgrd=2.27832]	0 ^a	.	.	0	.	.	.
[ZEmpl_Status=-1.02685]	-.997	.764	1.700	1	.192	-2.495	.502
[ZEmpl_Status=-.15882]	-1.133	.776	2.133	1	.144	-2.654	.388
[ZEmpl_Status=.70921]	-.705	.785	.807	1	.369	-2.244	.833
[ZEmpl_Status=1.57724]	-1.335	.795	2.819	1	.093	-2.894	.223
[ZEmpl_Status=2.44528]	0 ^a	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to nil since it is dispensable.

The findings in Table 4.31 showcase that there is significant impact of moving one level for gender on financial behaviour. This is because the significance value of the dummy variable is less than the critical significance value (α) of 0.05. The log odds ratio is negative, this means that being a female would lead to poorer financial behaviour. The findings also showcase that people living with partners are more likely to have better financial behaviour than people who are divorced/separated. This is because the significance value the dummy variable is less than the critical significance value (α) of 0.05 and the log odds ratio is positive. The rest of the predictor variables have no

significant effect on the response variable. The reason is significance values of the dummy variables are greater than the critical significance value (α) of 0.05.

Table 4.32: Test of Parallel Lines

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	804.853			
General	667.090 ^b	137.763 ^c	96	.003

The null hypothesis affirms that the location constants (slope coefficients) are the uniform over response brackets.

- a. Link function: Logit.
- b. The log-likelihood value can't be expanded further after attaining highest number of step-halving.
- c. The Chi-Square statistic computation is established on the log-likelihood value of the rear reiteration of the common model. Justification of the test is debatable.

The significance value obtained from the test of parallel lines (0.003) is less than the critical significance value (α) of 0.05. Thus, the findings are not dependable.

4.6.3 Gender and Financial Knowledge

When the gender and other background and demographic characteristics were regressed against financial knowledge, the findings are displayed form Table 4.33 through to Table 4.35. The variable financial knowledge was a dummy variable, where a correct answer by a respondent in any quiz was considered as 1 while a wrong answer was considered as zero.

Table 4.33: Model Fitting Information

Model	Model Fitting	Likelihood Ratio Tests		
	Criteria -2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	99.792			
Final	70.105	29.687	32	.584

The null hypothesis is that model entailing the background and demographic characteristics does not notably impact financial knowledge. The significance value acquired in the study (0.584) is greater than the critical value of 0.05. Accordingly, the null hypothesis is not rejected. Thus, the background and demographic characteristics do not significantly impact on financial knowledge and therefore cannot significantly predict financial knowledge.

Table 4.34: Pseudo R-Square

Cox and Snell	.089
Nagelkerke	.269
McFadden	.232

The Co-efficient of Determination (R^2) implies differences in response variable because of variations in the predictor variables. From Table 4.33, the Nagelkerke R^2 value is 0.269, a discovery that the model entailing the background and demographic characteristics causes a 26.9% of the deviations in financial knowledge. Other factors omitted from the model explain for 73.1% of the contrast in financial behaviour.

Table 4.35: Odds Ratio Results

Effect	Model Fitting Criteria -2 Log Likelihood of Reduced Model	Likelihood Ratio Tests		
		Chi-Square	df	Sig.
Intercept	70.105 ^a	.000	0	.
Zscore: Age	78.613	8.508	6	.203
Zscore: Gender	74.507	4.403	2	.111
Zscore: Marital Status	79.690	9.585	8	.295
Zscore: Education Background	77.748	7.643	8	.469
Zscore: Which of this best fit your present-day work situation?	71.505	1.401	8	.994

The chi-square statistic is the variation in -2 log-likelihoods linking the ultimate model and a decreased model. The decreased model is established by leaving out an impact from the ultimate model. The null hypothesis is that all constants of that impact are 0.

a. This decreased model is like the ultimate model since leaving out the effect does not escalate the degrees of freedom.

The null hypothesis was that no notable association links the background and demographic characteristics and financial knowledge. The study findings exhibited that each of the background and demographic characteristics does not have a notable impact on financial knowledge. This is because their significance values are higher than the critical significance value (α) of 0.05.

4.7 Interpretation and Discussion of Findings

The study endeavored to ascertain the effect that gender has on financial literacy in Kenya. In addition, the study specifically aimed at identifying the variation in the financial literacy levels of men and women and investigating the extent to which gender affects financial literacy. The study also sought to ascertain the effect of the

demographic and background characteristics that entailed; age, marital status, educational background, and occupation affect financial literacy. The data did not meet all the First-Order conditions to conducting linear regression, all the data series employed in the study did not meet the condition of normality. Thus, the data series were standardized as a remedy for rectifying non-normality of distribution.

The study findings established that the financial literacy aspects entailing financial attitude, behaviour, and knowledge were exhibited to a very large extent among individuals living in Nairobi County. The study findings also established that the background and demographic characteristics do not significantly influence the financial literacy aspects entailing financial attitude, behaviour, and knowledge, and therefore cannot significantly predict financial literacy. The study established that the demographic and background characteristics that entailed; age, marital status, educational background, and occupation did not significantly impact on financial attitude. Further findings were that being a female would lead to poorer financial behaviour and people living with partners are likely to have better financial behaviour than people who are divorced/separated. The final study findings were that background and demographic characteristics entailing; age, marital status, educational background, and occupation did not notably impact on financial attitude and financial knowledge.

The study finding that being a female would lead to poorer financial behaviour is in tandem with the gender schema theory developed by Martin and Halverson (1981), which implies that male and female may be disposed to stick to certain common expectations and requirements as they grow up.

Chen and Volpe (1998) established that women have lower knowledge level making it difficult for them to perform financial calculations, which eventually hinders their capability to make responsible financial decisions. Damian and Sylwia (2018) in their study on gender differences in financial behaviors identify that male and female portray distinct financial behaviors. Most young men mention money as their reason for happiness, are more active in financial markets thus gaining more returns from financial instruments, are highly likely to have debit cards, are risk takers and invest in bonds or shares. These findings are congruent to the current study findings.

In a study on gender contrast in financial management amidst college students, Lailly, Leila and Hamidreza (2011) established a clear distinction on how men and women manage finances. Female students demonstrated better financial management and spending behavior while male students portrayed better saving habits. A study by Lursardi (2017) indicates that in Kenya only 38% of adults are financially literate. Comparing men and women, only 36 % of women are financially literate. This is in agreement to the current study findings.

In both developing and developed countries, women evaluate their financial knowledge level cautiously (Lusardi and Mitchell, 2011). Most communities in Kenya are patrilineal, men are the bread winners and know they would be in charge of household financial decisions right from when they are young. In such societies, men are more likely to be conscious regarding financial knowledge (Lursardi, 2017). This is in agreement to the current study findings.

Andrea Hasler and Annamaria Lusardi (2017) carried out an analysis on financial literacy gender gap from a global viewpoint. They analyzed data from a survey, (S&P Global FinLit Survey), and found that financial illiteracy is extensive, but it is distinctly noticeable among women. Additionally, from a global viewpoint, just 1 in 3 adults exhibited comprehension of fundamental financial concepts. Gender gap in financial literacy was identified over countries with varying developments in financial markets and institutional arrangement in addition to different cultural and social context. The conclusion was that gender gap in financial literacy occurs over countries income levels notwithstanding. The aim of the study was to discuss and analyze the worldwide gender gap in financial literacy, focusing on one country enables evaluation of country specific issues that cause gender gap in financial literacy.

Stephan Klasen, Ute Rink and Yabibal Walle and (2019) conducted a study on financial literacy gender gap and the part of culture in India using nationally representative survey data. The study finds women significantly less financially knowledgeable than men. However, matrilineal women are more financially knowledgeable than patriarchal women. This is on the grounds that, in matrilineal social orders, women are family heads and know from childhood that they will be liable for family future budgetary and financial choices, they are therefore more expected to have a better financial knowledge. The study concludes that women are generally less likely to have knowledge of different financial instruments and practices than men, which is a widely observed fact in developed as well as in developing countries. The limitation on the conclusion of the study is that it has been generalized for all developing countries, whereas cultures of some developing countries differ which is a factor that affect financial literacy.

The study finding that people living with partners are highly likely to have better financial behaviour than people who are divorced/separated is in sync with the finding of the study carried out by Lusardi and Mitchell (2011), which discovered that people possessing lower levels of educational are likely to give wrong answers to financial questions with others saying they are unaware of the response. Brown and Graf (2013) also observed singles to possess a notable disposition less significant levels of financial literacy in comparison to married individuals.

The study finding that background and demographic characteristics entailing; age, marital status, educational background, and occupation did not notably influence all the financial literacy aspects entailing financial attitude, behaviour, and knowledge is in sync with the prospect theory developed by Tversky and Daniel Kahneman (1992), which enumerates that financial literacy gender gap is steady irrespective of socioeconomic background, institutional and cultural factors (Bucher-Koenen, 2017).

The study finding that the background and demographic characteristic entailing occupation did not notably impact on all the financial literacy aspects entailing financial attitude, behaviour, and knowledge contrasts Chen and Volpe (1998) finding that individuals with relatively longer work experience are faced with several financial situations, which causes them to obtain more knowledge, thus making it easy for them to analyze complex financial information and provide a basis for making effective decisions.

Unemployed or unskilled workers have lower contact with financial cases, hence showing lower performance (Kim & Garman, 2004). Working arrangements has a major impact on financial behaviors and attitudes, acknowledging individuals whose income is steady are better placed to plan and organize their financial life (Calamato, 2010). These are not in agreement with the current study finding.

The study finding that the background and demographic characteristic entailing age did not notably influence all the financial literacy aspects entailing financial attitude, behaviour, and knowledge is not in agreement with findings that young and elderly people have lesser degree of financial literacy when compared to the middle aged (Gabaix & Laibson, 2009). In their study, Lusardi and Mitchell (2011) established that individuals whose age group ranges between 25 and 65 scored 5% more questions compared to those whose age is below 25 or above 65 years. Further to this, Scheresberg (2013) identified that people aged between 25-34 years have acquired high cost loans. These findings are in agreement. These findings are not in sync with the current study finding.

The study finding that the background and demographic characteristic entailing educational background did not notably influence on all the financial literacy aspects entailing financial attitude, behaviour, and knowledge is not in tandem with the finding of the study carried out by Amadeu (2009) which identified that more exposure, as one goes through specialized or undergraduate courses, to disciplines related to finance has a constructive influence on the day to day financial habits. Students in the fields of Finance, Accounting and Administration portrayed higher levels of financial knowledge.

Robert (2013) researched on link between financial literacy and entrepreneurial success in Nairobi county. He applied random sampling to a study population of 27,485 SMEs and administered questions on both SMEs success and financial literacy. The finding of the study was that entrepreneurs with higher levels of financial literacy were more successful in running their businesses. In essence, SMEs that were found to be more successful were those run by entrepreneurs that understood the fundamental financial concepts like time value of money, interest rates, financial risk and risk management. Financial knowledge equips entrepreneurs with greater decision-making expertise which puts them in a favorable position to take risks, borrow and make diverse investments. The conclusion of the study is that entrepreneurs that are financially literate have greater chances to succeed compared to those with lower financial knowledge levels. Financial literacy was deemed to have a positive relationship with formal education since entrepreneurs that held formal education scored higher while those with no formal education scored considerably low.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This section shows the study findings summary, offered conclusions, and recommendations on the link between gender and financial literacy in Kenya. Additionally, the research limitations and further research suggestions are also outlined.

5.2 Summary of Findings

The study endeavored to assess the link between gender and financial literacy in Kenya. In addition, the study specifically aimed at identifying the variations in the financial literacy levels of men and women and investigating the extent to which gender affects financial literacy. The study also sought to ascertain the effect of the demographic and background characteristics that entailed; age, marital status, educational background, and occupation affect financial literacy. The study employed the use of descriptive statistics and multiple linear regression analyses.

The descriptive statistics employed in the study established that that the financial literacy aspects entailing financial attitude, behaviour, and knowledge were exhibited to a very large extent among individuals living in Nairobi County. The ordinal and multinomial logistic regression revealed that demographic and background characteristics explained a small extent of financial literacy and they do not significantly influence financial literacy and therefore cannot significantly predict financial literacy.

Further findings from the ordinal and multinomial logistic regression established that the demographic and background characteristics that entailed; age, marital status, educational background, and occupation did not significantly impact on financial attitude. Further findings were that being a female would lead to poorer financial behaviour and people living with partners are highly likely to have better financial behaviour than people who are divorced/separated. The final study findings were that background and demographic characteristics entailing; age, marital status, educational background, and occupation did not notably influence on financial attitude don't have a notable influence on financial knowledge.

5.3 Conclusion

In this section, the conclusion of the study is given; the conclusion is affiliated to the study objective, which was to evaluate the gender and financial literacy in Kenya. In addition, the study specifically aimed at identifying the variations in the financial literacy levels of men and women and investigating the extent to which gender affects financial literacy.

The study concluded that being a female would lead to poorer financial behaviour. The conclusion is in tandem with the gender schema theory developed by Martin and Halverson (1981), which implies that male and female may be disposed to stick to certain common expectations and requirements as they grow up. Chen and Volpe (1998) established that women have lower knowledge level making it difficult for them to perform financial calculations, which eventually hinders their capability to make responsible financial decisions. Damian and Sylwia (2018) in their study on gender differences in financial behaviors identify that male and female portray distinct

financial behaviors. Most young men mention money as their reason for happiness, are more active in financial markets thus gaining more returns from financial instruments, are highly likely to have debit cards, are risk takers and invest in bonds or shares. These conclusions are congruent to the current study conclusion.

5.4 Recommendations

The study findings will aid in further research to be conducted on the field of the relations between gender and financial literacy. Later scholars keen in research on relations between gender and financial literacy will use the study findings as referral. Policy recommendations are made to the Kenyan Ministry of Public Service and Gender that since it has been established that there is a discrepancy in financial literacy between males and females, to identify and implement gender sensitive financial literacy training programs accommodating the distinct characteristics and challenges of genders. The recommendation will guide government regulators in making policies and practices to provide significant input for public programs and financial education policies. Recommendations are also made to curriculum and education policy makers to make personal finance a required course in learning which will significantly equip the female gender with fundamental knowledge and skills to prosper in modern financial environment.

Recommendations are made to the general Kenyan community to increase the literacy levels of the female gender. Elevating gender financial literacy differences by instituting interventions will help in bettering the society. Recommendations are also made to employers to boost financial literacy levels among the female gender by for instance, organizing seminar-based programs that are of an interactive nature; seminars

on retirement which can promote accumulation of wealth and cushion financial insecurity in retirement. This will in turn boost employee productivity.

5.5 Recommendations for Further Study

Exploring the relations between gender and financial literacy is of great importance the policy makers in the Kenyan Ministry of Public Service and Gender and curriculum and education policy makers, the general population, and employers. However, the study was only conducted within Nairobi, further studies can be replicated in other counties and in other countries in Africa to find out if the study findings hold.

The study only factored in demographic and background characteristics that entailed; gender, age, marital status, educational background, and occupation as influencing financial literacy. A study can be conducted to establish existence of other factors that influence financial literacy. In addition, further studies can be carried out to find out if there are factors that moderate between demographic and background characteristics and financial literacy. This study used primary data, a successive research should be carried out, one that will make use secondary data to ascertain if the study findings would hold and either supplement or censure the finding of this study. The study applied multiple linear regression and descriptive statistics; other analysis methods for instance cluster analysis, discriminant analysis, granger causality and factors can be integrated in the future research.

5.6 Limitations of the Study

The study was conducted in the Nairobi context due to time and cost constraints, which does not give clear indication of findings if other geographical locations were also incorporated in the study. More uncertainties would occur if similar studies were replicated in different counties and countries. Although the research engaged primary sources of data by utilizing questionnaires, major challenges like non responsiveness of respondents or misunderstanding of the questionnaire were encountered. Physical administration and explanation of questionnaires was a challenge due Covid 19 restrictions. Raw data could also not be utilized hence needed to be coded with the assistance of a SPSS to achieve a synchronized information that can be compiled and drawn conclusions on. The process also consumed some considerable amount of time in compiling and recurrent delays of synchronizing the data.

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APPENDIX 1: QUESTIONNAIRE

The intention of this study is to determine the effect of gender in financial literacy. The questions will seek information about your bio data, your disposition, action and knowledge regarding basic finance principles. All data collected will be handled with confidentiality and will be solely used for research.

Tick where applicable.

[A]BIO DATA

Age

- a) 18-24 Years*
- b) 25-34 Years*
- c) 35-44 Years*
- d) 45-54 Years*
- e) Above 54 years*

Gender

- a) Male*
- b) Female*

Marital status

- a) Married*
- b) Single*
- c) Separated/Divorced*
- d) Living with a partner*
- e) Widowed*

Education Background

- a) *University-level education*
- b) *Technical/vocational education*
- c) *Secondary school*
- d) *Primary school*
- e) *No formal education*

Which of this best fit your present-day work situation?

- a) *Self-employed*
- b) *Paid employment*
- c) *Unemployed*
- d) *Retired*
- e) *Other*

[B] FINANCIAL ATTITUDE

1. It is hard to build a personal/family spending plan
 - (a) *Strongly disagree*
 - (b) *Disagree*
 - (c) *Neutral*
 - (d) *Agree*
 - (e) *Strongly Agree*

2. Money is made to be spent

a) *Strongly disagree*

b) *Disagree*

c) *Neutral*

d) *Agree*

e) *Strongly Agree*

3. It is important to set goals for the future.

a) *Strongly disagree*

b) *Disagree*

c) *Neutral*

d) *Agree*

e) *Strongly Agree*

[C] FINANCIAL BEHAVIOUR

4. I have made multiple active investments (real estate, stocks, bonds, savings)

a) *Strongly disagree*

b) *Disagree*

c) *Neutral*

d) *Agree*

e) *Strongly Agree*

5. I frequently borrow from family or friends to pay my bills

a) *Strongly disagree*

b) *Disagree*

- c) Neutral*
- d) Agree*
- e) Strongly Agree*

6. I consider options from different financial institutions before settling on a financial product

- (a) Strongly disagree*
- (b) Disagree*
- (c) Neutral*
- (d) Agree*
- (e) Strongly Agree*

[D] FINANCIAL KNOWLEDGE

7. Leonard and Catherine had a baby and received monetary gifts; they opt to save the gifts for the baby's education. Which of below will likely yield higher returns over time (18 years)?

- a. Government bond*
- b. Stocks and mutual funds*
- c. A fixed deposit account*
- d. A money market account*
- e. I do not know*

8. A loan with a maturity of 15 years require higher installments compared to a 30-year loan, however, interest payable on the loan is lower.

- (a) True*
- (b) False*

(c) I do not know

9. A high risk investment yields high returns

(a) True

(b) False

(c) I do not know

10. Increase in inflation rate results to increased cost of living.

(a) True.

(b) False.

(c) I do not know.

APPENDIX 2

Map of the Study Area

