UNIVERSITY OF CAPE COAST

PERSONAL FINANCE BEHAVIOUR AMONG FORMAL SECTOR WORKERS IN GHANA

VERITAS LUMEN NOBIS

PHILOMINA ARABA SAM

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BY

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Thesis submitted to Department of Finance of the School of Business, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for award of Doctor of Philosophy degree in Business Administration

OCTOBER 2021

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature …………………… Date………………..

Name: Philomena Araba Sam

Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's signature …………….. Date …………………

Name: Professor Siaw Frimpong

Co-Supervisor's signature …………………… Date: …………………

Name: Professor Stephen Kendie

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ABSTRACT

In order to improve our understanding of personal finance behaviour among formal sector workers, this study sought to examine the impact of Financial Knowledge, Financial Attitude, Locus of Control, Descriptive Norm and Financial Self-Efficacy on Financial behaviour. Additionally, the study observed the effects of Income, Age and Family Support as moderators on the relationship between Financial Behaviour intention and Actual Financial Behaviour. The research employed the reasoned action approach framework by Fishbein and Ajzen (2010). A total of 406 respondents working within the formal sector organisations in three districts of Ghana was analysed using PLS SEM. Questionnaires were used in the data collection. The study results revealed that Financial Knowledge, both perceived and actual, exhibit different impacts on Financial Attitude and Financial Self-Efficacy of formal sector workers. Additionally, it was observed that Perceived Financial Knowledge, Financial Attitude, and Locus of Control had a significant positive relationship with Financial Behaviour Intention. The assertion that Actual Financial Knowledge and Income influence Financial Behaviour was not supported. However, Income moderated the Intention-Actual Financial Behaviour relationship significantly. Family Support as a moderator also depicted a negative effect on the relationship between Intention and Actual Financial Behaviour. It was recommended that financial education must focus on developing good financial attitudes and beliefs to enhance the needed behavioural change.

KEYWORDS

Financial Knowledge

Financial Attitude

Locus of Control

Financial behaviour

Financial Self-Efficacy

Descriptive Norm

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To my family: Mr. Emmanuel Sam, Nana Adjoa Inkoom-Sam, Joanna Kukua Baidoo- Sam and Ewuradwoa Nkuranhye Baidoo-Sam.

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LIST OF ABBREVIATIONS

AFB	Actual Financial Behaviour
AFK	Actual Financial Knowledge
DN	Descriptive Norm
FA	Financial Attitude
FBI	Financial Behaviour Intention
FSE	Financial Self-Efficacy
LoC	Locus of Control
PBB	Planning/Budgeting Behaviour
PBI	Planning Behaviour Intention
PFK	Perceived Financial Knowledge
SB	Savings Behaviour
SI	Savings Intention

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CHAPTER ONE

INTRODUCTION

Introduction

“Personal Finance is more personal than it is finance”-Tim Maurer

Personal finance has received much attention within academic, political, economic, and social circles after the global financial crisis in recent times (Farrell, Fry, & Risse, 2016). Personal finance behaviour concerns how people manage the financial resources available to their households to ensure the family's present and future well-being (Narges & Laily, 2011). Individual financial behaviour varies among people (Bhushan, 2014). An individual’s financial behaviour is of importance as the decisions taken today will determine their future wellbeing and the impact people make on society (Murphy & Yetmar, 2010). Many studies have concentrated on financial literacy, that is, Financial Knowledge and skills that an individual requires to take sound financial decisions. However, how employees within the formal sector consume or save and manage their financial resources goes beyond the Financial Knowledge and skills they possess (Robb & Sharpe, 2009).

The formal sector contributes largely to the development of every economy (Jagadeesh, 2015). Employees within this sector do not only manage policies and projects belonging to organizations but also the resources available to their households. Even when general economic prices are rising, and the purchasing power of their disposable income becomes very low, formal sector workers continue to earn fixed monthly income over a period of time (Atkinson & Messy, 2011; Yankey, 2016). How such categories of workers manage the financial resources available to them and the determinants of their behaviour are of interest as their actions and inactions have a ripple effect on society. The financial behaviour of individuals, especially the formal sector employees, is critical because it affects the daily management of financial resources available to the household and the ability to save towards long-term objectives and retirement (Bhushan, 2014).

Background to the Study

Individual finance behaviour has gained attention in recent years by almost all governments around the globe, development agencies, and the World Bank (OECD/INFE, 2016). More prominent in recent studies is the knowledge and skills required to make good decisions by individuals. The increasingly complex nature of financial products on the market and the need for individuals to plan their financial security have been identified to be among some of the main reasons for this increased attention (Hilgert, Hogarth, & Beverly, 2003). This phenomenon has led to the rise in financial education in many countries because it is believed that a financially well-informed person will be in a better position to make good decisions about the general management of financial resources available to the family and ensure financial security and economic wellbeing (Hilgert et al., 2003).

Financial education is considered the backbone of the development of every nation as it enhances the skills and knowledge required by citizens to make informed decisions about their finances (Garber & Koyama, 2017). Financial education is expected to improve Financial Attitudes and further generate good financial behaviours. Good financial behaviours help people plan for their future by contributing to a sustainable, active lifestyle during their working years and retirement (Zakaria, Mohd Jaafar, & Marican, 2012).

Financial behaviours of individuals do not only have an effect on the immediate family but the society and the economy in general (Arifin, 2017; Hilgert, Hogarth, Vitt, & Anderson, 2002).

Financial behaviour has been explained to cover different aspects of a person's money management practices. Financial behaviour of individuals refers to people's spending and saving habits such as living on a monthly budget, having monthly savings, creating emergency funds and retirement packages, investing excess cash, and monitoring financial situations periodically (Hilgert et al., 2002; LaBorde & Mottner, 2013). Financial behaviour in the context of this study is seen as people's behaviour concerning financial planning and budgeting, savings, and general daily cashflow management. Individuals are faced with financial decisions every day, and today's decisions will determine their financial strength tomorrow (Ismail et al., 2017). Individuals who practice proper financial behaviours are better positioned to meet future financial obligations and emergencies (Narges & Laily, 2011). Appropriate financial behaviours also enhance the financial well-being of the individual and their household (Fluellen & Fluellen, 2013).

Financial wellbeing is a perception that an individual's financial situation is free from anxiety and is happy (Mokhtar & Husniyah, 2017). Financial wellbeing improves an individual's general health and affects his productivity. According to Joo's 2008 financial wellness model, an individual's financial wellness is a composite of one's financial behaviour and satisfaction that stems from Financial Attitude, Financial Knowledge, and some moderating factors like income (Hasibuan, Lubis, & HR, 2018). Employees' present and future financial well-being depend partly on their financial behaviours being practised currently. Employees live on a fixed monthly income over a relatively long period of time because of their compensation structure and thus are highly susceptible to the changing economic conditions over time (Bhushan, 2014; Yankey, 2016). Thus, personal financial management is an essential skill that can enhance employees' financial well-being, especially the formal sector workers.

Formal sector workers include both the public and the private sector workers who have structured employment in terms of conditions of service. An individual’s financial behaviour partly depends on the Financial Knowledge and skills acquired either through formal or informal education. Formal sector workers have a limited working life. At a determined age limit, workers cannot work within their formal organizations and must necessarily retire. The financial capacity of the retired worker depends on the financial planning done over the working years based on the person's financial behaviour (Bhushan, 2014).

Philosophically, a person’s financial behaviour is said to be influenced by certain factors. According to D’Holbach (1770), there is no free will and that the actions and inactions of a person are determined by certain factors (Pereboom, 2012). Soft determinism asserts that human actions can be free when a person has an option to choose between certain behaviours based on his nature. A person freely makes choices out of options based on his nature (Ogletree & Oberle, 2008). The behaviours that are seen to be freely made are based on some beliefs, desires, and temperament. A person’s belief is also shaped by the social, educational, and cultural experiences from the past and future happenings that are anticipated. A person may choose to either save or not because of some beliefs developed, some desires he has for the future, and the level of temperament with respect to the behaviour in view (Mickelson, 2019).

One can also explain the behaviour of a person from the consequentialist perspective of morality. Consequentialism in its general form holds that the results determine entirely the moral quality of an action that the action offers to the person (Guay, 2005). In this context, a person is saving because, in the future, some funds will be made available to them to spend. People are then motivated to carry out specific behaviours because of the future benefits they stand to gain. This statement affirms that all behaviours are based on certain factors in the past or the expected future. An individual may either consume or save a portion of their income based on the behaviour that has been adopted over the years (Vessel, 2008).

The reasoned action approach theory links an individual’s behaviour to the intentions developed based on the attitude and beliefs that a person possesses on any action/activity, the perceived norm, and the perceived control in achieving the required results (Fishbein & Ajzen, 2010). The intentions created further influence behaviour, and the relationship can also be interacted by the life cycle of the person in terms of age and income level and whether there is possible financial support from family in times of financial difficulty (Arifin, 2017; Capéau & De Rock, 2015; Grable, Park, & Joo, 2009).

Financial Attitude is developed through positive or negative behavioural beliefs over time that stem from people's background knowledge (Ajzen, 1985). The background knowledge includes Financial Knowledge that a person is privy to. Also, beliefs can be developed through anticipated positive or negative consequences of an action and perceived positive or negative experiences from previous actions (Arifin, 2017). A study by Zsótér and Németh (2017) shows that respondents with different Financial Attitudes toward loans and risk-taking vary in their financial behaviours towards these activities.

People who develop a positive Financial Attitude towards certain financial behaviours exhibit higher potentials in taking up such behaviours (Garber & Koyama, 2017; Ismail, Faique, Bakri, & Zain, 2017). Thus, Financial Attitude is known to influence financial behaviour. Even though positive Financial Attitude influences financial behaviour positively, the relationship between these two factors is moderated by certain actual control factors like the financial skills needed to perform the financial behaviour (Murphy & Yetmar, 2010).

The perceived norm component of the reasoned action approach theory is in two parts. The first part - injunctive norm -implies that an individual’s financial behaviour also depends on the social pressure from society, relatives, and family (Ajzen, 1985; Fishbein & Ajzen, 2010). It is mainly the affirmation that one receives from “important persons” about the behaviour to be carried out. An individual who may want to track expenditure as a form of budgetary control will like to assure himself that the behaviour will positively impact his family and that his family approves of it. This belief motivates the individual in developing the intention to carry out that financial behaviour (Raygor, 2016).

The second part of the perceived norm is the Descriptive Norm which implies that people's behaviours are influenced by actions and inactions of people (Fishbein & Ajzen, 2010). Behaviours exhibited by friends, family members and neighbours within the society can affect a person's behaviour positively or negatively. More prominent is the belief that persons known to be knowledgeable are themselves performing or not performing a particular behaviour (Ajzen, 2015). When a person is held in high esteem and is believed to be knowledgeable about some behaviour in question, the actions or inactions of that person appear to be the ideal situation for people who look up to the person.

Notwithstanding the attitude developed about the intended behaviour and the perceived norm that comes with its performance, an individual's intention to pursue any behaviour will further be subjected to the belief that the capacity to achieve expected results is available and is within the individual's control. The perceived control is the self-assuredness that one can achieve the target objectives or behaviour. (Ajzen, 2015; Marques, Mariano, Lima, & Abrams, 2018). This construct is based on the self-efficacy theory developed by Albert Bandura (1977).

A study by Farell, Fry and Risse (2016) on the significance of Financial Self-Efficacy in explaining women's financial behaviour in terms of the investments asset and debt holdings, concluded that women with high Financial Self-Efficacy are more likely to hold investment and savings products and less likely to hold debt related products. Holding more savings and investment products indicates forward-thinking and responsible financial behaviour, which improves the financial well-being of the individual and his/her household. Additionally, the general self-efficacy of individuals has been shown to correlate positively with their savings behaviour. Enhancing one's self-efficacy will improve the savings intention of the individual and may influence their savings behaviour (Lown, Kim, Gutter & Hunt 2014).

In a study by Faique et al. (2017), the findings showed that Financial Self-Efficacy and Financial Attitude explains 23 percent of the variations in financial behaviour of Malaysian workers. However, when Financial Attitude was used as a mediator between Financial Self-Efficacy and financial behaviour, a negative beta coefficient was observed. Financial Self-Efficacy influences financial behaviour and affects the financial wellbeing of individuals, their productivity levels, and the overall development of the nation.

From the reasoned action approach theory, human behaviour is goal-directed, and that attitude plays a crucial role in determining behaviour (Ajzen, 1985; Fishbein & Ajzen, 2010). The theory postulates that human beings behave sensibly. That is, they consider all available information and explicitly or implicitly consider the effects of their decisions. Individual behavioural intentions are assumed to follow in a reasonable, consistent, and often automatic fashion from their beliefs towards performing the behaviour (Ajzen, 1985). One will then say, human beings do not always act rationally as traditional finance theories posit. Also, individuals do not always behave in a particular way based on the knowledge and skills they possess. Many factors may impact the decisions and behaviours of people (Narges & Laily, 2011; Saidi et al., 2016). Consequentialism purports that an action is considered moral if the result of such action achieves a good purpose (Vessel, 2008).

Behavioural finance developed by Kahnehan during the 1980s has established that humans do not always behave rationally, as some traditional finance theories profess. Behavioural finance adopts theories in economics and psychology in explaining the irrational behaviour of consumers in terms of the cognitive biases and other heuristics that individuals may encounter in decision making (Rasheed, Rafique, Zahid & Akhtar, 2018). The reasoned action approach thus follows behavioural finance propositions with the underlying assumption that humans are not always rational in their actions and inactions. However, their decisions follow some beliefs developed over time based on certain background factors and societal influences (Fishbein & Ajzen, 2010).

Even though an individual's financial behaviour may depend on the attitude developed based on the background knowledge acquired as the reasoned action approach theory postulate, one must not lose sight of the fact that every individual goes through a life cycle and the various stages of the life cycle may inform the decisions one makes. The life cycle hypothesis by Modigliani and Brumberg (1950) posits that young people save less because they need to meet their physiological, educational, and family needs. As people grow, their needs reduce, and income levels increase with a corresponding increase in savings; and as they retire, the accrued savings are depleted to cater for their needs till they die (Chen & Volpe, 1998). The various stages of an individual's life cycle present peculiar needs. In satisfying these needs, one is influenced to embrace certain attitudes, which will result in a particular financial behaviour. Individuals' financial behaviour may then be attributed to the various needs of the person (Grinstein-Weiss, Guo, Reinertson, & Russell, 2015).

Variations in individual financial behaviour could also be explained based on differences in culture. Cultural differences in this context refer to the individualism or collectivism approach adopted by various societies. This theoretical argument is termed the “Cushion hypothesis”. According to Weber and Hesee (1998), people who hail from a collectivist society and share household collectivism are more likely to receive financial support when they have financial challenges compared to those from the individualistic society or households. This belief thus affects the level of risk that people with the collectivist cultural background are willing to accommodate and likewise with their financial decisions. It also affects the pro-activeness of people in their financial planning towards the future (Grable, Park, & Joo, 2009).

In a study by Adam, Frimpong, and Boadu (2017) on retirees' financial well-being, Family Support was seen as one major determinant of financial well-being. Retirees with Family Support receive financial assistance when the need arises. Family Support is seen as a form of cushion for people who believe they can access such financial assistance, and thus those beliefs influence their financial behaviour. People may not plan well for their retirement or even take on higher risks in financial decisions when they can count on Family Support. Therefore, there is the belief that Family Support influences peoples’ Actual Financial Behaviour even though they might have developed positive intentions to carry out proper financial behaviours (Grable, Park, & Joo, 2009; Tan, 2011).

Even as several researchers have recommended financial education as the solution to bridge the financial literacy gap and foster good financial practices, individuals who may have the knowledge and skills that equip them to practice proper financial management still do not observe such financial behaviour (Willis, 2011). According to Dave Ramsey, “Personal finance is only 20 percent head knowledge, it is 80 percent behaviour”. The philosophical argument of determinism says human actions are not based on free will. However, the actions and inactions of an individual are influenced by some external factors such as their level of income apart from the literacy and attitude that one may possess (Weissman, 2018).

In recent years especially after the financial meltdown in 2008, the world, through its global bodies, has sought to educate and equip people to take sound financial decisions and practice proper financial management (Becchetti, Caiazza, & Coviello, 2013). This stems from the fact that inadequate financial literacy and the resultant poor financial decisions have been acknowledged as one of the aggravating factors of the financial crisis. The Organisation for Economic Cooperation and Development (OECD) established the International Network on Financial Education (INFE) in 2008 to promote and facilitate international cooperation between policy makers and other stakeholders on financial education issues worldwide. As of 2018, more than 260 public institutions from over 115 countries have joined the network (Atkinson & Messy, 2011).

Upon joining the INFE network, nations have established policies and programmes to educate their citizenry on adopting prudent financial behaviours in their households (OECD/INFE, 2016a). Some of the programmes are geared towards promoting financial inclusion for the major part of the people in the country (Garber & Koyama, 2017). Financial inclusion aims to enrol most citizenry onto the various banking platforms to enhance savings behaviour and safeguard their assets (Banerjee, Kumar, & Philip, 2017). Ghana joined the INFE Network and have dedicated some days within the calendar year to create awareness to the general public on the financial products on the market and the need to patronize these products to enhance the financial wellbeing of the people and their household (Adam et al., 2017).

Financial wellbeing is a state of mind where an individual has confidence in one's financial capability to overcome financial shocks that may occur, meet emergency demands and prepare for the future (Mokhtar & Husniyah, 2017). The financial wellbeing of workers has a significant impact on their productivity. Individuals are able to concentrate on work and achieve target productivity levels when they are financially stable (Lim, Heckman, Letkiewicz, & Montalto, 2014). Formal sector workers are compelled to live on the same salary even when inflation and the general economic prices of goods increase.

Governments of various nations have recognised the positive impact of good financial behaviour by citizens on the economy (Ampah, Ambrose, Omagwa, & Frimpong, 2017; Jagadeesh, 2015). Nations thrive on the back of a robust financial sector where banks have access to domestic deposits and can redirect such funds to the various sectors that need the funds to grow the economy. Savings create capital formation, and further help accelerates labour productivity, resulting in increased Gross Domestic Product (Jagadeesh, 2015). Savings for short and long term objectives is one of the key competencies required under proper financial behaviours. Households that save frequently create resilience against financial shocks and thereby promote financial wellbeing. The OECD/INFE report in 2013, 2016 and 2017 all indicated a below-average saving rate for respondents from South Africa. Savings behaviour (active savers) dropped from 53 percent in 2013 to 39 percent in 2016 and 40 percent in 2017 (Atkinson & Messy, 2011; OECD/INFE, 2016).

A study conducted by OECD/INFE in 2013 on financial literacy and behaviour of fourteen (14) countries across four continents indicated that 97 percent of Malaysians had been saving continuously for at least twelve (12) months before the study. This savings behaviour of Malaysians has propelled their economy to grow steadily over the years (Atkinson & Messy, 2011; OECD/INFE, 2013). Another economy that has benefited from an explosion in household savings is China. The savings behaviour of the Chinese supported the economy to achieve an annual real GDP growth rate of eight percent for thirty continuous years (Lean & Song, 2009).

The government of Ghana developed the National Financial Sector Strategic Plan in 2008 to create awareness and educate citizens on access to financial services and change attitudes and translate knowledge to behaviour (Atia, 2012). This led to the yearly celebration of financial literacy week since September 2008 to sensitize citizens on the need to practice prudent financial behaviour and foster financial well-being (Yankey, 2016). The Association of Church-Based Development NGOs (ACDEP) provides financial training to small scale farmers to help them access financial services and develop business plans for their cash-crop production. ACDEP Financial Education (AFE) initiative, according to the implementers, has increased the number of farmers who have savings account with banks within the various farming communities (Atia, 2012).

The Labour Force Report issued by the Ghana Statistical Service in 2016 indicates that the Ghanaian employed labour force of 67.6 percent out of a population of about 27.6million receives an average monthly salary of GH¢898.00. The average mean household size of 3.2 was recorded, which meant that in every household, at least three people depend on this monthly salary for their survival as well as their health and educational needs. From the data, one can easily foresee that some households live below the poverty line of GH¢9.86 ($1.9) a day. The conversion is done using the Bank of Ghana Interbank Fx rate of Gh¢5.1976 to $1.00 on March 4, 2019. This has not changed significantly as the GLSS7 report in 2019 also indicated average monthly earnings of GH¢ 972 with an average household size of 3.8 (GSS, 2019).

Workers within the formal sector are made to compulsorily contribute a portion of their income towards a pension with the objective of reducing the risk of total hardship or poverty on retirement. This objective is primarily not achieved because funds available under the formal pension schemes to a retiree are inadequate to cover the pensioner's basic needs, thereby pushing such individuals into poverty. People have to plan for personal retirement in addition to the compulsory schemes available. Without sound financial behaviour, planning towards such a course becomes very difficult for individuals.

It becomes more prominent when the labour force retires after many years of service, and some receive as low as GH¢276.00 as their monthly salary (SSNIT Pension Review, 2018). According to their Defined Benefit Scheme, the Social Security and National Insurance Trust (SSNIT) pays retired workers based on the number of years worked and the average of the best three years' salary. The normal fifteen (15) years of service allows the retiree to earn a pension right of 37.5 percent of the average salary for the best three working years as pension salary (National Pensions Amendment Act, 2014 (Act 883). This pushed some retirees into the poverty bracket as defined by the World Bank and United Nations, and so the cycle of poverty never ends because the unemployed, some retired workers and the young below 15years are all trapped within this bracket. The burden of sustaining these groups of people within the economy now rests on the government and the few working labour force.

Also important is the daily financial management of funds available to the household to ensure future financial stability. Formal sector workers have the assurance that they will receive monthly salary periodically and so do not pay much attention to cash flow management. In most cases, they run out of liquidity in the middle of the month, causing serious financial distress to themselves and their households (Narges & Laily, 2011). Debt becomes the alternative way in supporting the household till the end of the month. This becomes a cycle where the monthly salary of formal workers are used to settle existing debt incurred in meeting basic household expenses of the previous month and taking on new debt for the current month (Brown, Grigsby, Klaauw, Wen, & Zafar, 2016; Idris et al., 2015).

Individuals are responsible for their financial stability during their working period and after they have retired from active service (Garman, Leech, & Grable, 1996). Peoples' financial behaviour and actions today will determine their financial strength tomorrow (Narges & Laily, 2011). With the increasingly complex nature of financial products on the market and the need to plan for their financial security, individuals financial behaviours are of great interest (Grinstein-Weiss et al., 2015).

The extant literature shows a correlation between Financial Knowledge and people's financial behaviour, although the direction of causality is not clear (Hilgert et al., 2003; Lusardi et al., 2014). From psychology, individual values highly influence the behaviour or actions of people. In a study by Arifin (2017) on the influence of knowledge on financial behaviour, 32.5 percent of people's financial behaviour variations are explained by the respondent's financial knowledge. This means that other factors account for the 67.5 percent variations. Few studies have shown interest in knowing the non-cognitive factors, including values and self-confidence of individuals and how these could influence financial behaviour, especially within the developing economies (Ali, Qamar, Asif, Khemta, & Jamil, 2016; Farrell, Fry, & Risse, 2016).

Statement of Problem

The problem statement is focused on four key issues, which are: the persisting high levels of poverty in the Sub-Saharan Africa region, including Ghana, the negative impact of poor financial behaviour on employees and its rippling effect on employee performance, the contribution of formal sector workers and retirees to the non-performing loans of various banks and finally the focus of research on financial literacy levels with inadequate attention on the influence of non-cognitive factors like Self-efficacy, Family Support, Descriptive Norms in determining financial behaviour of formal sector employees.

Poverty rates are still high in Africa, recording 43 percent in 2012 (Beegle, Christiaensen, Dabalen, & Gaddis, 2016) after all the interventions by various international and parastatal bodies like the World Bank and United Nations Development Programme (UNDP) in the form of aid and in addition to various poverty reduction policies and initiatives by African governments themselves. Sustainable Development Goal 1(SDG 1) aims at ending extreme poverty by 2030, and African Countries are expected to achieve this objective. Globally, 10 percent of the world's population are poor, and more than half of the extremely poor live in sub-Saharan Africa (World Bank, 2018). It is more striking in Ghana when people living in extreme poverty have increased from 2.2 million in 2013 to 2.4 million in 2017. Extreme poverty means those who cannot provide for their basic needs in life (Ghana Statistical Service, 2018). Out of this estimate, about 16.2 percent of the people within the poverty line are formal sector workers, and 1.6 percent are retirees.

Poverty worsens when individuals do not practice proper financial management (Lusardi & Mitchell, 2014). The extant literature has concluded that financial literacy –the knowledge and skills to make proper financial decisions-of individuals is low (Adam, 2017; Harrington, Smith, & Bauer, 2016; Hilgert et al., 2003; Isomidinova, Singh, & Singh, 2017; OECD/INFE, 2017). Hence, most people do not make the best out of the little they earn and do not prepare adequately for their retirement (Arifin & Anastasia, 2017; Narges & Laily, 2011).

From the life cycle hypothesis, people are expected to save during their working years to accumulate a fund that will sustain them during retirement. The savings/investments created are depleted gradually to support their needs on retirement (Hilgert et al., 2003). Generally, the savings behaviour of people has been very low. The Ghana Statistical Service report (2014) indicates that the percentage of people having a savings account or are contributing to a savings scheme was 23.8 percent in 2010, 38.5 percent in 2011 and dropped to 35.4 percent in 2014. To accumulate such funds, people need not only the Financial Knowledge and skills but also the non-cognitive aspect of their behaviour must be enhanced towards achieving such objectives (Arifin, 2017; OECD/INFE, 2016). From empirical reviews undertaken, it appears that inadequate research has been done to establish the link between individual beliefs such as Financial Attitude, Descriptive Norm and the Financial Self-Efficacy that the individual has towards achieving a financial objective and how these values influence their Actual Financial Behaviour (Ismail et al., 2013; Hanna Lim, Heckman, Letkiewicz, & Montalto, 2014).

Financial problems arising from improper financial management result in financial stress and subsequent health issues (Delafrooz & Paim, 2013). Financial problems affect not only the individual's personal life and family but also the person's work-life (Kadoya & Khan, 2017). The productivity of the nation is not spared from the poor financial behaviours of its labour force. In the public sector, where supervision is less, employees use productive hours to confer with others on their financial issues (Delafrooz & Paim, 2013). Financial stress and related health issues have a rippling cost effect on the organisation regarding medical bills and other statutory benefits as captured under various conditions of service within the formal sector (Lusardi, Schneider, & Tufano, 2011; Lusardi & Tufano, 2015).

The banking sector in Ghana experienced a severe crisis due to impaired assets primarily resulting from Non-Performing Loans (NPLs). The contribution of households to the banking industry NPLs rose from 5.3 percent in 2017 to 11.3 percent in 2018 (Bank of Ghana, 2018). Most of these loans to households are consumer loans that support consumption expenditure such as school fees, rent, vehicle acquisition, and food at home. These expenditures do not generate any form of income for the households, and as such, paying back these loans mostly creates difficulties for the households. Poverty cycles are created when households do not observe prudent financial behaviours, leading to higher NPLs and related difficulties in the banking industry (Delafrooz & Paim, 2013).

Over the years, much attention has been devoted to measuring financial literacy levels of various groups and creating awareness of financial products. However, the other factors that affect behaviour change have been given little attention. This reflects in the non-significant improvement in behaviour after all the education and awareness creation. Over ten years after observing a yearly financial week celebration in Ghana, not much can be said to have been achieved over the period in terms of changing individual financial behaviours (Atakora, 2013; Yankey, 2016).

A meta-analysis of 158 papers on financial education has revealed that education explains only 0.1 percent of the variations in financial behaviour (Fernandes, Lynch, & Netemeyer, 2014). A major challenge of financial education is that even those who have the knowledge and skills do not exhibit proper financial behaviours (Willis, 2011). Much more needs to be done to improve individual values and self-confidence in achieving the best financial behaviour practices. Therefore, research is necessary to refocus education in targeting factors that can change behaviour and give the needed results that economies require to develop (Atakora, 2013; Menkhoff & Kaiser, 2017).

Existing literature in Ghana has followed the global trend by measuring and explaining financial literacy levels of various groups (Yankey, 2016) or whether variations exist based on sex in terms of existing literacy levels (Adam, Boadu, & Frimpong, 2018; Adam, 2017). Other literature has also linked financial literacy to the financial wellbeing of individuals (Adam, Frimpong, & Boadu, 2017) and financial literacy to firm performance (Agyei, 2018). None of the studies was interested in examining the determinants of personal financial behaviour even though Adam et al. (2018) sought to examine the influence of financial literacy, behaviour, Family Support, number of dependent and retirement planning on the financial wellbeing of retirees. The focus of the study by Adam et al. (2018) was on the impact of financial behaviour on financial wellbeing. The current study extends further to analyse the impact of Financial Knowledge on behaviour considering the beliefs of the individual using the reasoned action approach.

The reasoned action approach to behaviour considers individual behaviours being influenced by the values/norms of the individual and society as well as the self-confidence that the person possesses about the behaviour to be adopted. Even though some research have shown a positive correlation between Financial Knowledge and Behaviour (Commission for Financial Literacy and Retirement Income, 2013), one may also argue from the reasoned

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action approach perspective that those individuals with a positive attitude towards best financial behaviours may seek the necessary Financial Knowledge to help them achieve such results after the intention towards the behaviour has been created (Ajzen, 2015; Menkhoff & Kaiser, 2017). Studies in this area so far have not established relationships between Descriptive Norm, Family Support, self-efficacy and some specific financial behaviours like financial planning/budgeting and savings. This study also examined the relationship between Financial Knowledge, attitude, self-efficacy, Locus of Control and financial planning/budgeting behaviour, to be specific.

In brief, the existing literature indicates that issues related to individual financial behaviour are Financial Knowledge, Financial Attitude and Locus of Control, even though the effect of Financial Knowledge on behaviour is still a dilemma. Financial Self-Efficacy, Descriptive Norm and Family Support are non-cognitive factors that may explain financial behaviour better when combined with the cognitive factors. Research has given inadequate attention to this combination over the years, and thus this study helped fill the gap. Furthermore, studies on the budgeting behaviour of individuals in specific have received little attention in the literature. Therefore this study has contributed to the body of knowledge. Likewise, existing studies in this area were mainly focused on students' groups (Adam, 2017; Nusron, Wahidiyah, & Budiarto, 2018). However, major household decisions on financial matters are taken by the income earners or the breadwinners of the home. Thus this study looked at the financial behaviour of workers in the formal sector.

Purpose of Study

The study sought to understand the factors that influence the financial behaviour of formal sector workers in Ghana. Personal financial behaviour regarding financial planning/budgeting and savings was examined relative to Financial Knowledge, Financial Attitude, Locus of Control, Descriptive Norm and Financial Self-Efficacy.

Research Objective

The main objective is to examine personal finance behaviour among formal sector workers in Ghana. The specific objectives of the study were to:

- Assess the relationship between Financial Knowledge and Actual Financial Behaviour.
- Explain the influence of Financial Knowledge on Financial Attitude and Financial Self-Efficacy.
- Examine the effect of Financial Knowledge, Descriptive Norm, Financial Attitude, Financial Self-Efficacy and Locus of Control on Financial Behaviour Intention and
- Assess the influence of Age, Family Support and income levels on the relationship between Financial Behaviour Intention and actual behaviour.

Research Hypotheses

The following hypotheses guided and assisted in achieving the objectives of the study:

H_1: Actual and Perceived Financial Knowledge influence

- H_{1ab}: Actual Financial Behaviour
- H_{1ce}: planning/ budgeting behaviour

- H_{1df}: savings behaviour

H_2: Actual and Perceived Financial Knowledge influence

- H_{2ab}: Financial Attitude
- H_{2cd}: Financial Self-Efficacy

H_3: Financial Behaviour Intention is influenced by

- H_{3a}: Actual Financial Knowledge
- H_{3b}: Descriptive Norms
- H_{3c}: Financial Attitude,
- H_{3d}: Financial Self-Efficacy
- H_{3e}: Locus of Control,
- H_{3f}: Perceived Financial Knowledge

H_4: Financial Behaviour Intentions and Actual Financial Behaviour are moderated by

- H_{4abc}: Age,
- H_{4def}: Family Support and
- H_{4ghi}: Income level.

Significance of the study

The study sought to explain the financial behaviour of formal sector workers in terms of planning/ budgeting, and savings based on the reasoned action approach and other supporting theories like the life cycle hypothesis and the cushion hypothesis. It is believed that this study has added to the body of knowledge on the influencing factors of an individual's financial behaviour. The findings of the study are expected to help financial education refocus on other influencing factors like financial attitude, descriptive norm and family

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support to help improve the financial behaviour of persons, especially the formal sector workers.

When people practice proper financial behaviour, they plan their financial life towards the present and future commitments, thereby improving financial stability and wellbeing (Henager & Mauldin, 2015). Financial soundness fosters good health and associated productivity; therefore, workers in the country and especially formal sector workers, can improve productivity to benefit the organizations in which they work (Bhushan, 2014). In recent years, employers, including the government, have been so interested in their employees' financial issues because of the associated cost to the organization. The research identifies areas where employees are deficient in practising good financial behaviours and the psychological issues involved in building good financial behaviour. The information could be used to formulate training programs to enhance the financial wellbeing among employees which can lead to higher productivity.

Also, the findings are expected to assist Practitioners (those in the financial sector) to develop products to meet the financial habits and preferences of the formal sector workers in Ghana and serve as a guide for policy formulation within the industry. The economy benefits immensely as the citizenry budget and save towards their anticipated future expenditures; the nation can mobilize resources to expand the various sectors of the economy to bring development.

The study is expected to enlighten the reading public on the influencing factors of financial behaviour; How financial and psychological factors like Financial Knowledge together with Locus of Control and self-efficacy can affect an individual's intention and behaviour financially. The study also brings to the fore that Financial Knowledge alone cannot influence good financial behaviour.

Delimitation and Scope of Study

The study examines factors influencing personal financial behaviour, focusing on employees working within the formal sectors of the country. The study selected one metropolitan, municipal and district assembly with strategic positions to ensure diversity in respondents.

Formal sector organizations are popularly located within the big cities and the regional capitals of the country. The three big cities in Ghana based on population are Kumasi, Accra and Sekondi/Takoradi. The study selected Accra Metropolitan Assembly to represent the big cities in the target population. Accra hosts almost all headquarters of the prominent formal sector organizations in the country. Even though the focus of the study is not on the organization but the employees within them, the city brings on board the representation needed from various sectors of the economy.

Twifo Atti-Mokwa District was randomly selected out of the One hundred and forty-five (145) districts in Ghana. As a district, it was expected that the diversity in economic conditions might reflect in their financial behaviour. Studies have also related personal financial behaviour to the poverty levels of households (Adam et al., 2017; Saidi et al., 2016). Saidi et al., 2016 considered the determinants of financial problems among adults, and the findings showed that financial behaviour is one of the influencing factors among other determinants.

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Komenda Edina Eguafo Abriem Municipal was also randomly selected from the One hundred and Nine (109) municipalities in Ghana as part of the primary target population. KEEA ranks relatively higher on the poverty index in Ghana, notwithstanding the average literacy rate of its citizens.

The public sector constitutes a chunk of the formal sector economy. As such, in the case of the Municipal and the District selected, Public Sector Workers form the majority of the target population based on the data from the Ghana Statistical Service. Accra Metropolitan exhibited a reverse of the observation, with the private sector leading the employment sector.

Limitations of the study

Firstly, focusing on only formal sector workers who constitute only about thirty-two percent of the employed population in Ghana is a limitation on the study in terms of area of study and sample size. Three Districts from two regions were used for the study. That notwithstanding, the researcher believes that the result reflects the general behaviour of workers across the country due to similar characteristics exhibited by formal sector workers. As such, the findings of the study can be generalized for formal sector workers in the country.

Secondly, respondents were required to self-assess their Financial Knowledge and other values/beliefs of interest in this study. There are differences in measuring the Perceived and Actual Financial Knowledge of persons. Most especially, the Perceived Financial Knowledge of persons is likely to be confounded with over-or-under confidence on the part of respondents especially when questions are related to financial issues (Jappelli, 2010). However, the questionnaires have been designed with multiple questions requiring the same information but structured in different forms to detect such possibilities.

Definition of Terms

Key terms and variables used in this research are defined based on the scope of their usage.

Personal Finance Behaviour covers different aspects of a person's money management practices. In the scope of this study, personal finance behaviour covers financial planning and budgeting, savings and cash flow management behaviours of formal sector workers.

Perceived Financial Knowledge (PFK) is an individual's self-assessed knowledge level on relevant financial issues related to money management and its benefits.

Actual Financial Knowledge (AFK) refers to respondents' understanding and ability to calculate financial terms based on an objective multiple-choice test.

Financial Attitude (FA) is the physiognomies of people that take the form of tendencies or preferences toward a particular financial behaviour.

Financial Self-Efficacy (FSE) is the conviction that one can successfully execute a particular behaviour to produce the required results.

Locus of Control (LoC) is seen as a measure of an individual's belief of cause and effect on their life.

Organization of the Study

The study is organized into eight (8) chapters. Chapter one is an Introduction to the study. This covers the background of the study, statement of the problem, the purpose and objectives of the study, the research hypothesis and the significance of the study, delimitation and scope of the study and limitation of the study.

Chapter two deals with both theoretical and empirical reviews of the literature on the area of study. This involves reviewing the existing body of knowledge and theoretical frameworks underlying the practice of personal financial management. Some research works have been carried out in related fields, which have identified some variables of interest that must be considered in this study.

Chapter three describe the Methodology deployed for the research. This chapter discusses issues on research design, study area, target population, sampling technique, sample size, data collection, and data analysis in detail.

Chapters four- seven discussed the findings of the study and positioned observations in the literature. It also discussed the implications of the findings and how these findings relate to theory and existing empirical evidence as well as real-world situations. Chapter eight ends the thesis, discusses the Summary, Conclusion and Recommendations.

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CHAPTER TWO

LITERATURE REVIEW

Introduction

Financial behaviour of households has become an area of interest for most researchers because of its vital importance to individuals' financial well-being and the economic growth of nations. Today, some nations are devoting resources to educating and equipping citizens with the hope of achieving good financial behaviour. Research has indicated that the financial behaviour of households has a severe impact on the financial wellbeing of the people and a rippling effect on their general welfare and productivity (Jian, Chen, & Chen, 2014; Mokhtar & Husniyah, 2017).

This chapter is in three parts; the first part reviews literature on related theories whilst the second part presents a review of empirical literature related to the factors that affect personal financial behaviour. The third part focuses on the conceptual framework for the study and how it has been developed. It starts with an overview of the integrated theories on behaviour, including Attitude-Behaviour- Context Model, Triandis Interpersonal Behaviour, the Motivation-Opportunity-Abilities Model, the Reasoned Action Approach theory that underpins behaviour, the life cycle hypothesis, Locus of Control and the cushion hypothesis and how these factors impact on a person’s financial behaviour. The chapter summarises an empirical literature review on factors that influence financial behaviour and how the current study fills a knowledge gap.

Theoretical Literature Review

Financial behaviour of people in their everyday decision making do not always conform to the expected behaviour patterns as predicted by traditional finance. Traditional finance assumes rationality in every decision and behaviour implemented by people. This involves a detailed analysis of the pros and cons of every decision before such behaviour is undertaken. However, in reality, some decisions and behaviours are not thoroughly examined before implementation, possibly leading to undesirable outcomes that can affect a person's future. Heuristics is a mental shortcut that helps us make decisions and judgments quickly without detailed analysis or mental effort. The most frequent used heuristics include Availability, Representativeness and Anchoring. The decisions we make every day create a behaviour pattern for the individual. Different theories have been developed over the years in predicting human behaviour. The chief among these theories is Ajzen (1980) thoughts in their groundbreaking theory of reasoned action, which have gone through several changes based on criticisms over the years. Other integrated theories on behaviour include Stem's Attitude-Behaviour-Context Model (2000), Triandis Interpersonal Behaviour (1977) and the Motivation-Opportunity-Abilities Model proposed by Olander and Thogersen (1993). The underlying fact is that all these integrated theories build their framework around similar concepts. We take a look at these theories in brief.

The Attitude-Behaviour-Context (ABC) Theory

According to Stern (1999), the behaviour of people is a function of both the internal and external factors exposed to the individual. It is made of the organism, thus the individual and its environment (Piscicelli, Cooper, &

Fisher, 2015). Behaviour (B) is made up of Attitudinal (A) factors and Contextual (C) factors. Attitudinal variables include personal beliefs, norms, values and the general inclination to behave in a certain manner. Alternatively, Contextual factors are external influences that could possibly affect the behaviour exhibited by a person. It includes monetary incentives and costs, physical capabilities and constraints, institutional and legal factors, public policy support and interpersonal influences. The ABC model blends the attitudinal effect (internal factors) and the contextual influences (external factors) on human behaviour (Egmond & Bruel, 2007). An example is when a person has a positive attitude to save monthly from his/her earnings but is reluctant to implement such behaviour due to an anticipated collapse in the financial sector of the economy because of certain policies and measures being implemented by the government. The proponents of the theory claim that the attitude-behaviour link is strong when contextual factors are weak or non-existent (Thomas & Sharp, 2013).

Even though Stern’s theory appears to capture motivators of certain behaviours, it may not be suitable for the current study because the theory does not recognise the intention separately to behaviour and actual behaviour and the fact that not all intentions are acted upon by people (Ajzen, 1985). The current study will measure behaviour intention and actual behaviour to establish controlling factors that inhibit behaviour even when the intention is created. For this reason, the Attitude-Behaviour-Context theory will not be suitable. Additionally, even though Personal finance behaviour could be influenced partially by contextual factors, it is mainly based on the person's internal resolutions, which are basically the beliefs and the capabilities to carry

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out such behaviours. These are well captured by the reasoned action approach theory, including the interpersonal influences and the actual control variables, which may be interpreted as contextual variables. Also, the focus of the study measures behaviour in terms of financial planning and budgeting, cashflow management and savings, which basically are decisions of the person.

Triandis Theory of Interpersonal Behaviour

This theory appears to cover, in broader terms, the antecedents of behaviour compared to Stern's ABC model (2000). The theory recognises intention, habitual responses and situational constraints and conditions as a function of behaviour. According to Triandis (1977), the intention is affected by social and affective factors as well as attitude, while moral beliefs also influence behaviour through intention with emotional drivers and cognitive limitations as moderators (Egmond & Bruel, 2007). The framework of the theory proposes that behaviour is jointly influenced by a person's intentions and habits with facilitating conditions as a moderator in the relationship. Intentions of the person are enabled by the person's attitude, social factors and affect/emotions (Egmond & Bruel, 2007; Pasick et al., 2009).

An example is when a person develops a positive attitude towards budgeting, the beliefs/norms support the attitude, and he/she is emotionally attached to the decision; an intention to carry out the behaviour is created. The frequency of past behaviour (habit) and the intention created together to predict whether the new budgeting behaviour will be implemented. The facilitating conditions could be the skill needed to budget.

The Triandis theory of interpersonal behaviour is suitable for predicting and examining behavioural change but may not be too appropriate for the current study. The underlying difference between this theory and the reasoned action approach is the addition of the habit construct to the framework. The current study focuses on predicting antecedents to existing behaviour, whilst Triandis' theory is much more suitable for predicting behavioural change.

Motivation-Opportunity-Ability Model

Olander and Thogersen (1995) constructed another integrative theory that explains consumer behaviour known as the motivation-opportunity-abilities (MOA) model. The model is a simplified version of the theory of planned behaviour which has been improved by introducing the ability and opportunity concepts. The Ability concept comprises both habit and knowledge of a given task possessed by the person to perform the behaviour. The Opportunity construct refers to the situational factors that may foster or inhibit actual behaviour even though the intention has been created (Egmond & Bruel, 2007). This construct is similar to the Facilitating factors in Triandis theory of Interpersonal Behaviour and Contextual construct in Stern's ABC Model as well as Actual control in the (Fishbein & Ajzen, 2010) theory of Reasoned Action Approach.

The MOA theory is also suitable for predicting change in behaviour as it already captures habit as one of the independent constructs in explaining behaviour change, whiles the focus of the current study is to explain existing behaviour. The researcher is opting to use the reasoned action approach theory because the conceptual framework of this theory appears to fit the task we hope to achieve, which is to examine the antecedents of existing financial behaviour of formal sector workers in Ghana.

Reasoned Action Approach Theory

The reasoned action approach theory has gone through series of development over the years. The Authors of the theory began with the theory of reasoned action in 1980, then the theory of planned behaviour in 1985 and recently the reasoned action approach theory in 2010. The authors have built upon the theory with new dimensions that develop based on criticisms and other research dimensions identified as the theory is used across different disciplines and cultural backgrounds.

The theory of planned behaviour propounded by Ajzen (1985) links an individual's belief systems to one's behaviour. The theory establishes a relationship between attitude towards behaviour, subjective norm, perceived behavioural control, the individual's intentions and behaviours. The theory of planned behaviour takes its roots from the theory of reasoned action by Fisbein and Ajzen (1980). Reasoned action theory posits that when an individual accepts a particular behaviour as positive (attitude) and the people who matter to him also accept that behaviour and wants him to perform (subjective norm), the individual is motivated and is most likely to do so.

The theory of reasoned action only considers the attitude towards the behaviour of the individual and the subjective norm (Ajzen, 1985). However, the theory of planned behaviour, in addition to the two constructs, considers a third construct called perceived behavioural control (Ajzen, 2002). This construct indicates whether the individual has control over the behaviour under consideration and will be successful in carrying out the task. The three constructs build up the intention to behave in a particular way.

"Actual Control" and "Descriptive Norm" have been added to the theory of planned behaviour, and the theory has subsequently been renamed the reasoned action approach (Fishbein & Ajzen, 2010). The theory suggests that attitude towards behaviour, perceived norm and perceived behavioural control determine an individual's intention and the intentions further influence behaviour. The Intention leading to actual behaviour is, however, mediated by actual control, which includes the skills, abilities possessed by the individual and the general environmental conditions prevailing at the time, that may serve as facilitators or barriers to the actual behaviour even though the intention has been created (Ajzen, 2015; Fishbein & Ajzen, 2010).

Likewise, the theory of planned behaviour considers only the subjective norms as a form of influence on behaviour that emanates from the society and the people around the person (Ajzen, 2002). The subjective norm is the social pressure from significant persons on the individual to perform a certain behaviour. However, the reasoned action approach takes a step further to recognise the Descriptive Norm, which represents the actions and inactions of people within the society (Fishbein & Ajzen, 2010). Behaviours exhibited by friends, family members and neighbours within the society can affect a person's behaviour positively or negatively. More prominently is the belief that important others are themselves performing or not performing a particular behaviour (Ajzen, 2015). For a person one holds in high esteem and trust is knowledgeable about some behaviour in question; the actions or inactions of that person appears to be the ideal situation for people who look up to the person.

The theory of planned behaviour was grounded in many areas like health-related behaviours, political behaviours, organisational behaviours and recently in Personal Finance by Arifin and Ismaill et al. (Arifin, 2017; Ismail, Faique, Bakri, Zain, et al., 2017). The study by Arifin (2017) analysed the influence of financial knowledge, point of control and income on financial behaviour, while Faique et al. (2017) tested Financial Attitude as a mediator for a relationship between Financial Self-Efficacy and financial behaviour. In both cases, the theory supported the study very well. However, the abridged version of the theory, which is the ***reasoned action approach,*** has not been used in any personal finance related study to the best of the researcher's knowledge.

The reasoned action approach theory has five major constructs. These are attitude, perceived norm, perceived control, intention and actual behaviour. The theory also recognizes background factors that may influence the three independent variables in the framework (attitude, perceived control and perceived norm). The theory indicates that between the intention and the behaviour, some factors like the skills acquired, the environment and other possible factors can influence the relationship.

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Background factors

Beliefs are not inborn but are formed by people based on observations within the environment, information received, inferences made from past experiences and future positive or negative anticipations (Fishbein & Ajzen, 2010). The kind of information and experiences people have are likely to create variations in their beliefs. Also, how people interpret their experiences and information in creating those beliefs depends on the personal characteristics (personality traits, values), social and cultural differences (education, religion, ethnicity) and the level of exposure to media and other sources of information (Fishbein & Ajzen, 2010). The background factors are the influences either inherent or acquired, which serves as the basis for the variations in beliefs and subsequently the behaviour under consideration. The reasoned action approach theory, therefore, assumes that people may not necessarily be rational in their decisions and behaviours. However, every behaviour depends on some beliefs that have been developed based on the background factors persisting at the time of the decision-making process or previously.

Attitude

Agreeing on a common definition and measurement for attitude has seen many controversies among scholars in psychology and its related fields. That notwithstanding, Allport, (1935) defined “attitude as a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon all objects and situations with which it is related” (p180). Attitude is also defined by Fishbein & Ajzen (2010) as “ a latent disposition or tendency to respond with some degree of favourableness or unfavourableness to a psychological object” (p76). This definition appears intuitively reasonable compared to the previous definition by other scholars. However, it has not emerged without some criticisms. An even simpler and direct definition of attitude was given by Thurstone (1931) as “the affect for or against a psychological object”. The attitude object can be any aspect of the person’s life, including certain behaviours. The definition by Thurstone (1931) shows the evaluative nature of attitude, which was further expanded by Fisbein and Ajzen (2010).

Attitude has been one of the frequently used psychological constructs in explaining social behaviour over the years. It develops from the instrumental and experiential aspects of a person's belief (Fishbein & Ajzen, 2010). Instrumental aspects consider the anticipated consequences of a particular behaviour in evaluating the favourableness or unfavourableness of the action, whiles the experiential aspect is based on the perceived positive and/or negatives experiences from the past (Ajzen, 1985, 2015). Attitude counts a lot more when explaining human behaviour, especially how people manage their personal finances.

Perceived Norm Construct

Most of the social behaviours exhibited by people are influenced by the environment and the happenings within them. Society creates certain acceptable and permissible behaviours which can strongly influence the way people may live and behave. These are known as social norms, and they serve as a form of regulation, guidelines or simply as empirical regularities (Fishbein & Ajzen, 2010). The aim of social norms is to prevent people from behaving only in pursuit of their interests but for the social good (Pereboom, 2012). Perceived norm is made up of injunctive norms and Descriptive Norms.

Injunctive Norms

Injunctive norms are values and behaviours expected by society from its members. It also includes the actions and inactions required of us by the most important personalities around us (Fishbein & Ajzen, 2010). An example is when an individual refuses to smoke because the parents will not be happy seeing him/her do that.

Descriptive Norm

Descriptive Norms refer to the perceptions of individuals about how people within the society behave. People are sometimes influenced to follow behaviours of people that they believe have expert and referent power (Fishbein & Ajzen, 2010). An example is when someone invests in a highly risky venture because he/she sees people who are knowledgeable in finance investing in such ventures. The reasoned action approach theory assumes that a person’s own behaviour is influenced by the perceived behaviours of others. Thus, when colleagues, people whom one admires and respect, are not practising personal budgeting, it becomes easier for one to be influenced to do the same.

Issues related to individual money management and personal finance are rarely influenced by injunctive norms because people are normally reserved about issues concerning their finances. They, however, look at what people do and decide on the financial behaviours to undertake. As such, this study will only focus on the Descriptive Norms assuming that people are influenced to follow the behaviours of others within the society, especially those they admire and respect.

Perceived behavioural control

Perceived behavioural control, which is the third leg of the theory of reasoned action approach, takes its root from the Self-efficacy theory proposed by Bandura (1977). Bandura defined self-efficacy theory as the conviction that one can successfully execute a particular behaviour to produce the required results. People's sense of motivation, performance from previous actions as well as the feeling of frustrations associated with repeated failures over time are likely to determine their behaviours (Fishbein & Ajzen, 2010). People go through financial distress when they fail to manage their finances well and that leads to financial denial disorder. Financial denial disorder is an attempt by individuals to cope by simply not thinking about money or trying not to deal with monetary issues (Taylor, Klontz, & Lawson, 2017).

Criticism of the Reasoned Action Approach

An individual's financial behaviour is guided by knowledge and beliefs. The theory is based on the subjective probability (beliefs) that a certain behaviour will produce the needed outcome. The theory expects certain assumptions to be met in order to predict behaviour.

First, the theory assumes that human social behaviour follows reasonably and often spontaneously from the information or beliefs that people possess about the behaviour under consideration.

Secondly, measures of intention and perceived behavioural control must be attuned or correspond to the intended behaviour in terms of context. Finally, perceived behavioural control should realistically reflect actual control to ensure strong predictive validity.

The theory has received some criticisms even though the authors over the years have clarified the assumptions underlying the theory to overcome some of these misunderstandings. Firstly, the theory is criticised for being too rational. Rationality, in this case, means the step-by-step process in decision making. In real-world situations, individuals may not always follow through a well-thought process in taking some decisions, and such critics are of the view that rationality may not apply to the real world (Wiedemann et al., 2009). Secondly, the theory has been critiqued on the question of sufficiency, which suggests that the theory assumed to have considered all relevant factors in predicting human behaviour (Sniehotta, Presseau, & Araújo-Soares, 2014). Fishbein & Ajzen (2010) have argued that their theory is open to new constructs provided the additional variable can explain significant variations in behaviours. Several researchers have indeed added new variables in explaining particular behaviours (Arifin, 2017; Sniehotta et al., 2014; Wiedemann et al., 2009). This study thus adds Financial Knowledge and Locus of Control based on evidence from empirical literature to the theory in an effort to explain the personal financial behaviours of formal sector workers. The theory is supported by the life cycle hypothesis and the cushion hypothesis.

Life Cycle Hypothesis

Even though an individual’s financial behaviour may depend on beliefs acquired over a period, one’s financial behaviour may also be attributed to one’s life cycle, as hypothesised by Modigliani and Brumberg (1950). The hypothesis posits that the young save less because they need to meet their physiological, educational and family needs. As they grow, their needs reduce, and income levels increase with a corresponding increase in savings. As they retire, they deplete their accumulated savings to cater for their needs till they die. The key assumption is that all individuals chose to maintain stable lifestyles (Bloom, Canning, & Graham, 2003; Capéau & De Rock, 2015).

The life cycle hypothesis suggests that individuals plan their consumption and savings behaviour according to their life cycle. With this in view, an individual’s financial behaviour cannot be said to be influenced totally by the beliefs he has acquired through Financial Knowledge, self-efficacy and Locus of Control but also that an individual’s age and income level may be vital decision factors to consider (Grinstein-Weiss et al., 2015; Hong, Sung, & Kim, 2002).

Even as reasoned action approach assumes that individuals behave rationally in terms of step by step decision making, based on their attitude, perceived norm and perceived behavioural control, behavioural finance theorists believe otherwise, that human beings do not always act rationally (Davis, Campbell, Hildon, Hobbs, & Michie, 2015). Even though an individual may have a positive attitude towards a particular behaviour, one may not carry through that intention because of other factors of interest.

Cushion Hypothesis

Cushion hypothesis theoretically advances an argument that people from collectivist societies and households are likely to receive some financial support when they are in difficulty compared to those from individualistic cultural backgrounds (Hsee, & Weber, 1998). The individualism and collectivism cultural differences were discussed by Hofstede (2011). Individualism and collectivism in societies is the extent to which people are integrated into societal groups like the extended family system. Within the individualistic societies, everyone is expected to cater for him or herself and their immediate families while within the collectivist societies, children from birth are integrated into a strong cohesive-in-group, often extended family system which continues to protect them during most part of their lives (Hofstede, 2011; Minkov, 2017).

The societal norms, either collectivism or individualism, does have an influence on the decisions and behaviours of people within the society (Grable, Park, & Joo, 2009). Behaviours are often developed based on some beliefs people possess. The Ghanaian society is known to be a collectivist society where children are brought up with some orientation towards the extended family system. This strong societal integration seems to be gradually losing its grip giving way for individualism in some societies and families. Individuals these days are more concerned about the needs of themselves and their nuclear families. Individual financial behaviour is affected by the belief that one may or may not be cushioned when financial difficulties do arise.

Family Support has been shown to influence the financial wellbeing of retirees and thus their level of preparedness towards retirement (Adam et al., 2017). Family Support in this context may be looked at as financial assistance from both external and nuclear family members that an individual can rely on during times of difficulty (Tan, 2011). Family Support may be seen as influencing an individual’s decision to practice proper financial behaviour like budgeting and savings even though a positive intention might have been developed towards these behaviours (Illiashenko, 2019).

Personal finance behaviour

Personal Finance behaviour has been defined to cover different aspects of a person’s money management practices. Mirriam-Webster dictionary defines financial behaviour as any human behaviour that is relevant to money management. Financial behaviour of individuals refers to spending and saving habits of people such as living on a monthly budget, having monthly savings, creating emergency funds and retirement packages, investing excess cash and

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monitoring financial situations periodically (Hilgert et al., 2002; LaBorde & Mottner, 2013). Hasibuan, Lubis, & HR (2018) defines financial behaviour as to how good a household or an individual treats, manages and uses financial resources available to them. Personal Finance behaviour also concerns debt behaviour and borrowing decisions of households. The rate at which people accumulate debt due to concessionary loan packages made for institutions by banks and the proliferation of debt-related financial products on the market is incredible (Brown et al., 2016).

An investment decision is also considered as part of the financial behaviour of people. Investment decision includes the amount of money to be deployed into the investment opportunity, the vehicle for the investment, portfolio composition and the duration within which a person is willing to commit such funds. Financial behaviour stretches from personal budgeting to cashflow management and savings. Personal budgeting is the act of identifying the income and expenditure of the individual and applying implicit or explicit restrictions to ensure that available funds are utilized judiciously within a particular time frame (Galperti, 2016). Cashflow management, on the other hand, involves the individual monitoring their cash inflows and outflows periodically to avoid possible liquidity challenges that may occur within the period (Hilgert, Hogarth, & Beverly, 2003). All these aspects of one's financial behaviour are critical to the financial soundness and wellbeing of the person.

Financial literacy and financial behaviour are often used interchangeably in the literature. However, there appears to be a thin line between a person's literacy and behaviour financially. The OECD INFE

(2011) has defined financial literacy as ‘a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing’. This definition encompasses every aspect of a person’s financial life and activities, even though financial behaviour in its accurate term is expected to be the result of a person’s financial literacy and skills acquired over a period of time.

Conceptualizing human behaviour

The financial behaviour of people can be well understood when we can first assimilate the meaning of Human behaviour. According to the Miriam-Webster dictionary, “Behaviour is the manner of conducting oneself or the response of an individual to its environment”. Human behaviour is made up of the range of conduct demonstrated by people based on influences like culture, emotions, attitude, values, authority, persuasion or genetics. Human beings interact with the environment and thus are affected by observable/measurable and mental/emotional actions of others. Human behaviour is complex and is shaped by a lot of factors that affect different aspects of an individual life, including the social, financial, academic, political and other areas of a person.

The propensity to budget one’s consumption and save is built on the behaviour that has been adopted over the years. Financial behaviour in this study is limited to the budgeting, savings and cash flow management behaviour of persons.

Prudent/good financial behaviours

A person’s capability to capture the understanding of the overall impact of one’s financial decisions and actions and to make the right decisions regarding money management is considered their financial behaviour

(Edirisinghe, Amarasinghe, & Keerthipala, 2017). Financial behaviour is the actual decisions carried out over a period of time. Every person who earns income has a way of managing such funds, which is considered as their financial behaviour. The financial behaviour is either good or poor depending on the circumstance under which they have been taken. However, some financial behaviours are required of all persons who earn income in any form to ensure financial stability and financial wellbeing. In reviewing the literature (Hilgert, Hogarth, & Beverly, 2003; OECD/INFE, 2016), some good financial behaviours have been observed, which include but are not limited to:

- Spending less than what a person earns periodically.
- Establishing measurable financial goals with traceable milestones and realistic plans to achieve them.
- Building and maintaining an emergency fund equal to three to six months living expenses to cover for any financial shocks that may occur.
- Maintaining a budget to control regular and irregular spending periodically.
- Saving and invest for education, mortgage, retirement and other activities of concern.
- Maintaining adequate insurance cover for life and assets.
- Paying periodic bills regularly and on time to avoid penalty cost and other avoidable cost.
- Keeping non-mortgage debt payments below 25 percent of disposable monthly income.

Measuring financial behaviour

The financial behaviour of people has been measured in diverse ways and viewpoints by different authors. Based on the findings from the literature review, the financial behaviour of individuals can be measured using a number of criteria such as debt management (Farrell et al., 2016a), cash flow management, financial planning and budgeting (Arifin, 2017; Perry and Morris, 2006), having savings, investment, educational and retirement plans (Farrell et al., 2016a; Fünfgeld, Wang, & Fu, 2009) and the type of financial asset held by people (Farrell et al., 2016). In this study, financial behaviour will be measured from two key areas, financial planning and budgeting and savings behaviours of an individual. Financial behaviour is the dependent variable

Financial planning and budgeting

Budgeting is the process of identifying one's needs and wants and how the available resources could be apportioned to satisfy these needs. It is the process of creating a plan to spend one's money (Harrington et al., 2017). The spending plan is the budget. A budget may be considered as an estimation of revenues and expenses of a household over a specified period of time. A budget provides a mechanism to structure one's spending and avoid excess spending (Galperti, 2016).

A study by Stilley, Inman and Wakefield (2010) concludes that households build slack into their budgets to accommodate forgotten needs or unplanned wants while shopping. Thus, people do not overspend with budgets that include slack. Customers also track in-store spending primarily due to budgetary limitations (van Ittersum, Pennings & Wansik, 2010). These findings suggest that a budget helps to structure spending and reduce the possibility of overspending. Also, the spending plan created as a result of budgeting helps households always to have some money for the things needed. In addition, following a budget in the use of one's resources reduces the occurrence of debt compilation and helps households walk out of debt if already in one. Households who follow the budgeting process well are able to identify periods when their finances may be tight, or there may be extra cash and put in place structures to even out the high and low periods in finances to make life more manageable and pleasing (Walther & Skousen, 2009).

Savings

Savings is that part of an individual's income reserved for future consumption. It is the total revenue less expenditure for a period which an individual may consciously reserve to meet future demands (Bloom et al., 2003). Some of the reasons for saving funds are to meet uncertain future expenditures, acquisition of durable goods and irregular expenditures, life cycle motive and bequest motive (Capéau & De Rock, 2015). How much an individual chooses to save today for consumption tomorrow has important implications for the welfare of the person, family, society and the economy in general (Capéau & De Rock, 2015). The vicious cycle of poverty in developing countries can be reduced if not curtailed by the good savings habit of its citizens (Bloom et al., 2003; Jagadeesh, 2015). Savings is considered an engine for economic growth. Nations like China and Malaysia have been able to develop faster due to the high savings of their households and the capital formation of the economy.

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In Ghana, general household savings have been very low. The percentage of people having a savings account or are contributing to a savings scheme was 23.8% in 2010, 38.5% in 2011 and 35.4% in 2014 (Ghana Statistical Service, 2014). From the GLSS6 2014 report, among the varying reasons for not owning a savings account by individuals and households, 19.9% of the people stated that they did not find it necessary to have a savings account. This shows that attitudes and beliefs are very important predictors of behaviour. Another study by Afoakwah, Annim and Peprah, (2015), reveals that women's bargaining power in the home can influence the level of savings for the household positively. Women's bargaining power was measured as the level of education of the woman among the couple. Some studies have also established a relationship between financial education and the percentage/frequency of individual savings (Bhutoria & Vignoles, 2018; Grinstein-Weiss et al., 2015). Other literature has identified household income, Locus of Control, number of earners in the household as contributing to the saving behaviour of people (Davidson & Silva, 2013; Hong et al., 2002).

Debt and borrowing behaviour

The borrowing decisions of an individual is considered a major part of the financial behaviour exhibited by a person. Debt is classified as external funds borrowed to either finance capital and (or) recurrent/consumption expenditure. Individuals borrow funds for long- or short-term periods to supplement cashflows. The focus of the discussion will be narrowed to the debt a person takes on to supplement consumption expenditure. Consumption expenditures are costs incurred in satisfying individual needs directly through the purchase of goods and services for a period. Consumption expenditure does not include debt related to mortgages.

Borrowing, in general, could be influenced by many factors. The rate at which people accumulate debt due to credit card usage and the proliferation of debt-related financial products on the market is incredible (Brown et al., 2016).

Some studies show that debt behaviour is transferred culturally to children by parents, especially the mother.

Locus of control concept

Rotter (1954), in his social learning theory of personality, came up with a framework on Locus of Control. He was credited to be among the first people who documented and explained this psycho-social phenomenon (Rotter 1966 as cited in Grable, Park and Joo, 2009). Locus of Control is the degree to which people believe they have control over the outcome of events in their lives as opposed to external forces controlling them (Dwiastanti, 2017; Rasyid, Linda, Patrisia, Fitra, & Susanti, 2018).

Locus of Control is seen as a measure of an individual's belief of cause and effect in their lives (Cobb-clark, Kassenboehmer, & Sinning, 2013). This psychosocial phenomenon is a continuum with two extremes - internal and external. Internals tend to believe that the outcomes of their actions are the results of their own abilities (Taylor et al., 2017). With this in mind, they believe hard work will yield them positive outcomes/returns. People with an external Locus of Control believe that their financial situation is controlled by outside factors, which they cannot influence in any way. They attribute their own actions to external forces like luck, fate and the influence of powerful personalities (government officials) and also believe that the world is too complex for someone to predict or successfully control one's outcomes (Rasheed, Rafique, Zahid, Akhtar, 2018). These beliefs affect their attitude towards adopting proper financial behaviours, thereby leading to financial distress and other related problems (Garman et al., 1996).

People who go through a state of financial disorder do not consider it expedient to apply financial planning with the view that even though they do not know about their financial positions, they are able to meet their daily basic financial needs reasonably. Their ability to achieve this feat is normally attributed to some belief systems such as religion, fate and other invisible external factors and control (Taylor et al., 2017).

Empirical Literature Review

Introduction

Many researchers have conducted surveys on financial behaviour from diverse perspectives resulting in different findings and reports. This section sheds light on some empirical studies conducted by other researchers. Financial behaviour determinants are discussed in terms of Financial Knowledge, Financial Attitude, Financial Self-Efficacy, Locus of Control, Descriptive Norm and other moderating variables of interest. The conceptual framework was developed and discussed from the reasoned action approach framework and other supporting theories.

Determinants of financial behaviour

There are a number of factors that must be considered in predicting or explaining an individual's financial behaviour according to the theory of reasoned action approach. These include Financial Knowledge, Financial Attitude, self-efficacy, perceived norms, intention and actual control variables (Fishbein & Ajzen, 2010). In reviewing empirical literature, Locus of Control and Income was also found to influence financial behaviour alongside other variables (Cobb-clark et al., 2013; Rasyid et al., 2018; Taylor et al., 2017). These are discussed below:

Financial Knowledge

In most literature, Financial Knowledge is subsumed in financial literacy. According to the OECD/INFE report, financial literacy is a combination of knowledge, skills, attitude, awareness of financial products and the general behaviour necessary to make sound and informed decisions that will enhance one's financial wellbeing (OECD & INFE, 2017). Financial knowledge refers to peoples understanding of financial terms and the impact on their financial wellbeing. It includes inflation, the value of money over time, opportunity cost, interest rate, exchange rate and the awareness of financial products on the market (Lusardi & Mitchell, 2014; Mathew Beila Yankey, 2016).

Recent studies have distinguished between Perceived Financial Knowledge and Actual Financial Knowledge of people. Perceived Financial Knowledge is a personal assessment of an individual's knowledge on relevant financial issues related to the management of money, whereas Actual Financial Knowledge refers to people's objective understanding of financial terms and their impact on their financial wellbeing based on some measurement carried out (Nguyen, Rózsa, Belás, & Belásová, 2017). Most of the studies in the area concentrate on the actual knowledge of respondents (Adam et al., 2017; Edirisinghe, Amarasinghe, & Keerthipala, 2017; Kadoya & Khan, 2017; OECD/INFE, 2011). Likewise, some researchers have focused on individuals' perceived and Actual Financial Knowledge levels and how each affects behaviour (LaBorde & Mottner, 2013; Nguyen et al., 2017). Perceived and Actual knowledge levels differ among individuals so does their effect on Financial Behaviour.

LaBorde and Mottner (2013) conducted a study on personal finance literacy and the perceptions of knowledge, actual knowledge and behaviour using College Students. The research focused on measuring the difference between perceived knowledge and actual knowledge and their influence on behaviour. The study also examined differences in gender, age and other demographic factors of participants in line with their financial behaviour. Behaviour in this study was conceptualized in terms of debt, money management and retirement planning.

The researchers used a panel of thirty (30) basic finance questions that covered areas like Debt, Investment, Insurance, Money Management, Tax and Retirement planning to assess the Actual Financial Knowledge level of respondents with some questions involving numerical calculations. Also, respondents were asked to rate their level of understanding or proficiency of some sixteen (16) financial terms regarding the six broad areas of personal finance indicated on a 5-point Likert scale questionnaire that ranged from strongly agree to strongly disagree. Behaviours were not assessed in all six areas as the authors believed that some behaviours were fairly remote for most of the college students. Online survey was used with a response rate below 10 percent of the sample size.

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The results show that the Perceived Financial Knowledge level is either overstated or understated by respondents. Actual knowledge on debt and retirement planning was lower than perceived knowledge, whiles the inverse holds true for the other four areas. Even though respondents exhibited higher perceived knowledge in debt-related issues, this did not translate into prudent financial behaviour with respect to debt management. The study did not measure differences in behaviour with respect to actual knowledge and perceived knowledge but focused on differences based on age, gender and ethnicity.

A further study by Nguyen et al. (2017) confirmed that differences exist between perceived and Actual Financial Knowledge of respondents and went further to analyse the effect of both knowledge levels on behaviour. Nguyen et al. sought to examine the factors that influence decision-making on regular personal saving behaviour of people in Ho Chi Minh City in Vietnam. In this study, the behaviour was conceptualized as regular personal savings of people as compared to the research by LaBorde and Mottner (2013), where behaviours in money management, debt and investment were all considered.

A sample was drawn from customers of four commercial banks within the vicinity. Customers of these banks could be formal and informal sector workers, students, pensioners and other groups in contrast to the previous study, which focused solely on students. Survey questionnaires were distributed to the respondents. Eight multiple-choice questions on Actual Financial Knowledge and six questions on perceived knowledge using a 5-point Likert scale measurement from very low to very high was used. The survey also captured questions on risk tolerance and other demographic variables. Logistic regression analysis was conducted to establish relationships among variables.

The research found that Actual Financial Knowledge has a statistically significant positive relationship with regular personal savings, whiles no relationship was observed between Perceived Financial Knowledge and regular personal savings. This meant that individuals with high Actual

Financial Knowledge are more likely to have regular personal savings. Furthermore, people who perceive themselves to have adequate knowledge on personal savings may not necessarily observe the behaviour of regularly putting funds aside for the future. This finding, however, is inconsistent with previous findings by Van Rooij. et al. (2012) concluded in their studies that people with higher levels of confidence in their Financial Knowledge are more likely to plan and save for retirement. Also, according to Henager and Mauldin (2015), Perceived Financial Knowledge is a strong indicator of individual savings behaviour.

Much empirical research has concluded that people do not possess adequate financial knowledge and that they are not capable of making good financial decisions (Hilgarth, Hogarth & Beverly, 2003; Volpe. Chen & Liu, 2006; Lusardi & Mitchell, 2007; Arifin & Anastasia, 2017). Most studies have concentrated on young students and their level of financial literacy. Notable among such studies is the work of Lusardi (2015). The author worked in close collaboration with the OECD/INFE team on financial literacy. The study sought to measure the financial literacy levels of young people around the globe. In this study, a total of 18 countries made up of 13 OECD countries, and five partner countries and economies were considered.

Methodologically, the study used a survey research design by administering questionnaires to college students within an average age group of 15 years. Both constructed-response and selected-response questions were used to gather data on the literacy levels of students. The OECD put together experts to develop questions for the assessment. The questions covered areas such as budgeting, financial planning and savings. About 29,000 young people from 18 countries answered the questionnaires.

The study concluded that there is a sizeable number of students whose knowledge are very basic and cannot be classified as being financially literate. Furthermore, the results show that financial literacy varies among male and female students indicating that males are better than females. This observation is supported by many studies conducted earlier. However, a recent study by Anokye, (2017) that examined gender disparity in financial literacy among a homogeneous group of students reported that there are no differences between male and female financial literacy levels as the differences that seem to exist are due to other factors because, in a homogenous group, gender disparity is statistically not significant. Also, the findings indicate that financial literacy varies based on the socio-economic background of the individual. Several studies have confirmed this position in both old and young adults (Arifin, 2017; Hilgert et al., 2003).

Another study by Bhushan, (2014), an associate professor in humanities and social sciences at Jaypee University, India focused on salaried individuals within the city of Pradesh. The study sought to measure the financial capability of salaried individuals and further identify the determinants of their financial capability. The financial capability was defined to include knowledge, attitude, skills and behaviour necessary to make prudent personal finance decisions.

The population for the study were salaried workers in Hamichal Pradesh, one of the states in India. Multi-stage sampling was used. First of all, three districts were randomly selected out of the total of twelve districts within the state. Secondly, each of the three districts selected was divided into subgroups. Salaried workers were selected purposively from two sub-groups, each from the three districts making a total of six sub divisions for the study. Questionnaires were used in gathering primary data from respondents. The questionnaire covers questions on Financial Knowledge, attitude and behaviour as well as some socio-demographic indicators. Financial Attitude and behaviour were measured using 5-point Likert scale questions, while Financial Knowledge was measured objectively using multiple-choice questions. A total of 516 respondents were used for the study. To establish the associations between financial capability and some of the socio-demographic variables, One-way ANOVA was employed to carry out the task.

A financial capability of 63.27% was observed for the study. It was concluded that salaried workers within the Hamichal Pradesh state had the average financial capability. This position differed from the findings of Lusardi (2015), even though both studies used the same questions from OECD/INFE. This could probably be as a result of variations in the respondents used for the study, with college students and salaried workers for both Lusardi (2015) and Bhushan, (2014), respectively.

The most common recommendation to this problem of low Financial Knowledge is to increase financial education with the general assumption that improved Financial Knowledge will result in effective financial decisions and behaviour (Robb & Sharpe, 2009; Atakora, 2016). However, Braustein and Welch (2002), in their studies, concluded that the relationship between behaviour and knowledge is more complicated as improved knowledge does not automatically produce improved behaviour.

The position by Braustein and Welch (2002), was further advanced by the findings presented by Borden et al. (2008), as cited in Rodd and Woodyard (2011) and Kholilah and Iramani (2013), which seeks to question the link between knowledge and behaviour as their result did not establish a significant relationship between Financial Knowledge and effective financial behaviour. The study by Borden et al. (2008) further suggests that greater knowledge may improve one's financial skill and capability as well as intentions towards proper financial behaviour but not necessarily following through with the action of more responsible behaviour. Intentions control human actions, but not all intentions are acted (Ajzen, 1985).

Kaiser and Menkhoff (2017) conducted a review study to explore the impact of financial education on both financial literacy and behaviour. Tim Kaiser and Lukas Menkhoff, a research associate and a professor in economics respectively, both at the German Institute for Economics Research, carried out a meta-analysis of One Hundred and Twenty-Six (126) impact evaluation studies to establish the correlation between financial education and financial literacy and its corresponding financial behaviour. The review focused on the impact of financial education on seven key areas of personal finance, which include Financial Knowledge, borrowing and debt management, budgeting and planning, savings and retirement saving, insurance and risk mitigation, remittance and bank account behaviour.

The selection of research studies for the review was based on the following keywords: financial literacy, financial knowledge, financial education, financial capability and a combination of such words with 'intervention' from the relevant database. A total of about 500 journals and

600 working papers were obtained through the search. Further selection criteria focusing on studies that reported quantitative assessment of intervention impact were used to arrive at a sample size of 126 studies. The effect of financial education on Financial Knowledge and behaviour separately and jointly were coded. These constituted 90 studies reporting 349 effect sizes on financial behaviour, 67 studies indicating 190 effect sizes on financial literacy as well as 31 studies on both financial literacy and behaviour. The dataset used for the review includes four main types of financial education. These are classroom financial education, online financial education, individualized counselling interventions and informational & behavioural nudges.

The result of the review shows that the average effect of financial education interventions on financial literacy is higher than that of behaviour. The average impact of financial education on literacy and behaviour was 26.3 percent and 8.6 percent, respectively. The findings of the review support the conclusions of Braustein and Welch (2002) that the relationship between behaviour and knowledge is more complicated as improved knowledge does not automatically produce improved behaviour. Furthermore, the review concludes that the impact of financial education varies based on the type of financial behaviour under consideration. Table 1 shows the effects sizes as per the type of behaviour.

Table 1: Effect Sizes of Behaviours

Type of Behaviour	Effect Size
Financial knowledge	0.26
borrowing and debt management	0.02
budgeting and planning behaviour	0.21
savings and retirement savings	0.11
insurance and risk mitigation	0.05
remittance behaviour	0.03
bank account behaviour	0.00

Source: Kaiser & Menkhoff, (2008)

Traditionally, financial education has been centred on improving the financial skills and numeracy of people and creating awareness of financial products. Much attention has not been given to the other psychological aspects of the individual that could contribute to the behaviour exhibited by the person. This may have led to the minimal impact of financial education on individual financial behaviours over the years. Willis (2011) stated that even those who are financially knowledgeable and skilled do not make prudent financial decisions. The study looks at whether Financial Knowledge can influence financial behaviour better when moderated by Financial Self-Efficacy, Locus of Control and Financial Attitude.

Financial Attitude

Financial Attitude is the physiognomies of people that take the form of tendencies or preferences toward a particular financial behaviour. Peoples Financial Attitude reflects the possibility of taking action towards some behavioural direction. From the theory of reasoned action approach, an individual's intentions are influenced by attitude developed through beliefs over time (Ajzen, 1985). Financial Attitude is developed through positive or negative behavioural beliefs over time that stem from people's background knowledge (Ajzen, 1985). The background knowledge includes individual social information that could be developed from the level of Financial Knowledge that a person is privy to. Also, beliefs can be developed through anticipated positive or negative consequences of an action and perceived positive or negative experiences from previous actions (Arifin, 2017).

Most researchers use money attitude to mean Financial Attitude and thus do not make any distinction between them. However, some writers try to approach Financial Attitude from the management and use of money. In a study by Zsótér and Németh (2017) that sought to characterise young people's Financial Attitude and behaviour, the respondents who were university students were grouped into three clusters based on their Financial Attitude using these dimensions: Negative attitude towards loans, Risk-taking and Moral values. The behaviours of the three clusters- Conservative, Rebel and Experienced- representing the various groups of respondents were analysed.

The target population for the study were young adults between the ages of 18-25 years from two university colleges. Respondents totalling 2,070, representing about 5.5 percent of the total population of the two colleges, were used as the sample size. Data collection was done using online questionnaires. The questionnaire was structured to cover areas like student's income, set of objectives, behaviour towards a financial product, Financial Knowledge, saving and investment behaviour. Financial Attitude was measured using a 7-point Likert Scale ranging from 1- "I do not agree at all" to 7- "I agree completely. Financial Attitude has been grouped into four areas: awareness, attitude towards loans, risk orientation and moral values. The respondents were also grouped into three using K-means clustering analysis. The three clusters were characterised by certain variables using ANOVA and cross-tabulation for both metric and non-metric variables.

The study showed that respondents from various clusters with different Financial Attitudes exhibited varying financial behaviours. The three clusters are Conservatives, Rebels and Experienced. The conservatives claim to be financially aware, having high moral values and a very low appetite for risk. On the other hand, the Rebels had a lower level of financial awareness, greater willingness to take a risk, and lower moral values. Finally, the Experienced group claims to be financially aware with high moral value and a low-risk appetite. The three clusters showed varying attitudes and behaviour towards savings and taking loans. The conservatives abhor loans and do not want to be indebted whiles they make the highest form of savings (87.6%) among the three groups. However, their savings are in the form of current accounts and few bank deposits without serious investments to earn a return. In contrast, the rebels do not worry about indebtedness and also exhibit the lowest savings attitude (56.8%) of the three clusters, with most of their savings in short term investments vehicles. Lastly, the Experienced group, even though they are comfortable with debt, they love savings and investment into long term products like government bonds, buildings and shares.

A recent study by Faique et al. (2017) also confirmed a relationship between Financial Attitude and behaviour as they empirically examined whether Financial Attitude and goals affect financial behaviour. The study employed the goal-setting theory in carrying out this task. The goal-setting theory underpins that human beings translate motivational forces into observable behaviours through the process of setting and pursuing goals. The theory implies that as people plan and set goals to achieve financial independence, the goals tend to motivate them to adopt prudent financial behaviours. The researchers expected that an individual's goal and attitude would influence his/her financial behaviour.

The respondents for this study were workers from all sectors (Public, Private and others). Considering the population as being workers from Melaka, Malaysia, the sample size of 30 for a quantitative study of this nature appears to be very small. Convenience sampling was used in selecting the respondents, even though this method of sampling is known to be non-probable in terms of respondent's selection. With a small sample size, the result for the regression analysis appears not to be very robust. Two hypotheses were tested:

H_1: Financial Attitude have a significant relationship with financial behaviour

H_2: Financial goals have a significant relationship with financial behaviour

The regression results failed to reject H1 whiles rejecting H2. Conclusions drawn from the result indicates that a person's Financial Attitude has a significant influence on financial behaviour. Thus, when an individual possesses a positive attitude towards budgeting, it is likely that they will budget. This position is consistent with the reasoned action theory, which also postulates that a person's attitude thus influences his/her behaviour (Fishbein & Ajzen, 2010). However, it was expected that a person's financial goals and objectives could influence his/her financial behaviour, but that was not supported by the regression results.

Another study that brings to the fore the role of Financial Attitude in predicting a person's financial behaviour is Sundarasen & Rahman (2017). In this study, money management behaviours of young adults were analysed based on their parental norm and perceived financial literacy, mediating the relationship with their attitude towards money.

The study was quantitative in approach with a cross-sectional study design to achieve its objectives. The target population were young working adults undertaking post-graduate education at both private and public universities. Convenience sampling was used in arriving at a total sample size of two hundred and twenty respondents. Out of this number, two hundred respondents completed their instruments for the study resulting in a response rate of 90%. This response rate is very high, considering the type of survey being conducted. Most of the studies on financial behaviour reviewed show a lower response rate (Bhushan, 2014; Nguyen et al., 2017; Zsótér & Németh, 2017). The higher response rate could be attributed to the sampling method used and the data collection method, being via the University campus intercept procedure and face-to-face surveys.

The researchers used a 5-point Likert scale questionnaire ranging from 1- “strongly disagree” to 5- “strongly agree” to measure money management, financial literacy, parental norms and Financial Attitude. Structural Equation Modelling (SEM) analysis was used to establish causal relationships among the model constructs.

The study found that attitude towards money influence money management positively. The result implied that when people have a positive attitude towards prudent money management practices, they are likely to implement them to achieve financial wellbeing. This position is consistent with the findings of (Faique et al., 2017; Zsótér & Németh, 2017) and the reasoned action approach (Fishbein & Ajzen, 2010). However, when the attitude towards money was used as a mediator between perceived financial literacy and money management of young adults, no relationship was found to exist. This position could be informed by the respondents being young adults (college students) and also the questions used in measuring attitude towards money.

Financial inclusion is considered as the access, usage and quality of financial products and services on the market. Financial inclusion is seen to be closely linked to national development, thus becoming one of the priority areas of policymakers globally. Financial inclusion can be fostered by both demand-side and supply-side factors. In terms of access, the demand-side considers the ability to use financial products and services at the service point. The usage dimension also considers the person's willingness and ability to derive permanent purpose and utility from a particular financial service, whiles the quality dimension considers the relevance of the financial product or service to the day-to-day needs of the person. Some people can have affordable access to financial services but still may choose not to use them, thus making financial behaviour a key aspect in financial inclusion.

A study by Mindra and Moya (2017) examined the effect of Financial Attitude, literacy and Self-Efficacy as key capabilities in enhancing financial inclusion. The researchers sought to develop a theoretical model that explains financial inclusion from the demand-side perspective. The study focused on the low-income earners in two distinct regions in Uganda. Some behavioural theories like the social cognitive theory, theory of planned behaviour, social learning theory and the capability approach were used in explaining the relationship among the various factors affecting financial inclusion.

The research approach was positivism (quantitative), adopting a cross-sectional design. The target population were adult individuals within the Central and Northern regions of Uganda. A multi-stage stratified sampling method was used to generate a sample size of 400 individual financial consumers to participate in the research. A self-administered questionnaire categorized into areas like demographics, Financial Self-Efficacy, financial inclusion, financial literacy and Financial Attitude were used to collect data. Financial Knowledge was subjectively measured, while Financial Attitude questions required respondents to indicate their degree of agreement to disagreement towards the use of formal financial services and consequently their financial behaviour. A 7-point Likert scale from “agreement” to “disagreement” was used to measure financial inclusion.

The conclusions drawn from this study were that, firstly, Financial Attitude does not directly influence the use of formal financial services. Thus, a person’s positive/favourable judgement or otherwise about a financial service or product, may not necessarily result in his/her participation in such financial service. This position deviates from the ideal reality proposed by Fishbein & Ajzen, (2010) that attitude guide, influence, direct and shape behaviour. It is expected that attitude will create intentions, even though not all intentions are acted. However, this study did not measure intentions toward the behaviour, which may possibly correlate positively with Financial Attitude. A person may develop a positive intention towards a particular behaviour but may not practice such a decision because of other factors that may exist at the time. Secondly, the results show that Financial Attitude does not correlate with financial inclusion even after mediating the relationship with Financial Self-Efficacy.

Financial Self-Efficacy

Financial Knowledge is very important but has not proven to be the sufficient driver for responsible financial behaviour. Researchers and educators in financial behaviour are recommending that there is the need for more attention to be directed towards the psychological aspects of individual behaviour because financial behaviour depends not only on Financial Knowledge and attitude but also on non-cognitive abilities such as self-efficacy (Grable, 2010).

Farell, Fry and Risse (2016) tested the impact of Financial Self-Efficacy in explaining women's personal financial behaviour using a psychometric instrument for measuring Financial Self-Efficacy developed by Lown (2011). The behaviour in this study was measured by the type and number of the financial product (s) held by a respondent. Either a respondent has more investment-savings related products or debt-related products. The researchers sought to examine the type of financial product a woman holds and draw an inference that their patronage in certain financial products reflects how well they are managing their finances and how responsible and forward-thinking they are.

The research was quantitative in nature, using an online survey questionnaire. A random sample of Australian women was taken with a total response from 2,192 participants. Data were screened for item non-response resulting in a total of 1,542 responses as the sample size for further analysis.

The types of products included in the survey were investment product (property, shares), mortgage, savings account, credit card, loan and other types of credit, health insurance and life insurance. Financial Self-Efficacy was measured using the six-item statements by Lown (2011). A 4-point Likert scale from “exactly true” to “not true at all” was used to administer the six-item scale on self-perceived capacity. Regression analysis (multivariate Probit Model) was used to establish the correlations among the variables.

The result from the analysis showed a positive relationship between self-efficacy and financial behaviour. The coefficient results show that even after controlling for differences in financial risk preferences and financial literacy factors, women with higher levels of Financial Self-Efficacy exhibits the potential of holding more investment-savings related products and less debt-related products. Holding Private Health Insurance was found not to be influenced by FSE or their risk preference but the tax incentives that could be derived from the government.

A similar finding was observed in a study by Rothwell, Khan, & Cherney (2016) as they examine relationships between internal constructs that make up financial capability and the behavioural outcome of savings. The internal constructs making up financial capability in this study were limited to objective Financial Knowledge and Financial Self-Efficacy. Savings behaviour was measured using three fundamental areas: savings towards child post-secondary education, retirement, and emergency. The three areas used in measuring savings in this study fulfil the general motives of savings as precautionary, transactional and speculative. Three hypotheses were to be tested on the relationships among objective Financial Knowledge, Financial Self-Efficacy and savings behaviour.

The population for the study were low-income earners in Canada who are 18years and older. A total sample of 15,519 was chosen with a 56.3 percent response rate. Three questions were asked to measure savings behaviour, with each question representing the three areas of savings, that is, savings towards child post-secondary education, saving towards retirement and emergency savings. In assessing respondents' objective Financial Knowledge, 14 multiple choice questions were used, and a different five-item self-efficacy scale targeting the financial domain was administered. The study did not use the Financial Self-Efficacy scale developed by Lown (2011) but created a 4-scale Financial Self-Efficacy questions ranging from 1-"very good" to 4- "not very good" from Bandura's general self-efficacy theory.

Upon testing the three hypotheses, the researchers provided evidence to support Bandura (1982) claims that self-efficacy mediates the relationship between knowledge and action. The results show that Financial Self-Efficacy positively influences savings behaviour outcomes as well as mediating the relationship between knowledge and savings outcomes. The positive coefficients of Financial Self-Efficacy were consistent with large effect sizes even after controlling for income and other demographics. The findings of this research are consistent with Farrell, Fry, & Risse (2016), even though they both measured financial behaviour in different ways.

However, studies by Faique et al. (2017) failed to establish a positive relationship between self-efficacy and financial behaviour. The researchers sought to test three hypotheses; H1: Financial Attitude (FA) has a significant relationship with Financial behaviour (FB), H2: Financial Self-Efficacy (FSE) has a significant relationship with FB and H3: FSE has a significant relationship with FB mediated by FA. The study used the Financial Self-Efficacy scale developed by Lown (2011) that measures self-efficacy specifically in the financial field. Financial Behaviour was measured using questions on financial planning, savings and the general control of finances.

Online questionnaires were used to collect data. Only thirty respondents between the ages of 18-60 were used in the study. A total of thirteen questions were used with three questions assessing Financial Attitude, six questions on Financial Self-Efficacy and four questions on financial behaviour. The instrument was a 10-point Likert scale ranging from "strongly agree" as the highest to "strongly disagree" as the lowest. The Data was analysed using WARP-PLS. Even though PLS allows for small data analyses, the researcher must not lose sight of the reliability and representation requirement in selecting the sample size (Joe F. Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

Faique et al. (2017) observed a significant negative beta coefficient after testing for the relationship between Financial Self-Efficacy and financial behaviour. This implied that people with high confidence in their ability to carrying out a particular financial task are less likely to attempt doing those activities. The position is inconsistent with existing literature (Farrell et al., 2016b; Rothwell et al., 2016). Surprisingly, the result also indicated a positive correlation between Financial Attitude and behaviour as well as a positive relationship between Financial Self-Efficacy and financial behaviour when mediated by Financial Attitude.

Even though the findings of the study by Faique et al. (2017) shows that Financial Self-Efficacy and Financial Attitude explains 23% of the variations in financial behaviour of Malaysian workers, Financial Self-Efficacy is seen to influence financial behaviour positively through Financial Attitude in this study. The sample size was relatively small for such a study and may influence the findings. Furthermore, financial behaviour has been measured differently in these studies reviewed. Whiles studies by (Farrell et al., 2016a; Rothwell et al., 2016) measured financial behaviour by the type of financial products held and savings outcome of the person, Faique et al. (2017) considered financial planning, budgeting, savings and general control of funds as the measure for financial behaviour. The different forms of measuring financial behaviour may affect the correlations observed.

Other interesting findings were observed by Mindrah and Moya (2016) as they sought to mediate the relationship between Financial Attitude, financial literacy and financial inclusion (demand-side perspective) with Financial Self-Efficacy. This article was reviewed fully under "Financial Attitude". Financial Self- Efficacy was measured using the scale developed by Lown (2011) with few modifications to suit the study type. Financial Inclusion considers access, usage and quality of formal financial products and services.

Findings show a direct influence of Financial Self-Efficacy on Financial Inclusion, denoting that people with higher confidence in their ability to operate formal financial services are more likely to get involved giving the access. Furthermore, FSE mediated positively between Financial Literacy and Financial Inclusion, and whiles a non-significant relationship existed between Financial Attitude and financial inclusion after mediating the relationship with Financial Self-Efficacy. The observation is that changes in Financial Attitude can only be directly associated with financial inclusion without going through Financial Self-Efficacy. The study, therefore, expects that Financial Self-Efficacy could significantly influence financial behaviour.

Locus of Control

Financial behaviour and management of personal finance have shown some linkage with the way the individual perceives to be in charge of his actions. Locus of Control is empirically seen to impact the financial behaviour of households. Perry and Morris (2005) conducted a study on the impact of Financial Knowledge, Income and Locus of Control on a person's financial management behaviour. The study focused on a person's perceived control over outcomes in life, the differences in income, self-assessed Financial Knowledge and the relationship with their reported financial behaviour. The research was based on the Locus of Control theory. The theory proposes that a person's perceived control over outcomes in life is a continuum, either extreme internal, extreme external or somewhere on the continuum. The theory describes internals as more action-oriented, motivated and likely to perform a difficult task than the externals. Financial behaviour was defined in this study as a person's propensity to budget, save part of their income and control spending.

The authors used data from Freddie Mac consumer credit survey. A sample of 23,000 questionnaires was mailed to respondents between the ages of 20-40years online. The survey was restricted to individuals and households with income at or below $75,000 (lower-income earners). With a 51 percent response rate, a total of 10,977 observations were used in the analysis.

Financial behaviour was measured using 5-point Likert scale questions, 7-point ite scale based on Rotter's LOC was used to measure self-control, while Financial Knowledge and Income were measured subjectively. The hypotheses being tested were to find a negative relationship between external Locus of Control and financial management behaviour as well as Locus of Control mediating the relationship between Financial Knowledge and behaviour. Regression analyses were conducted to achieve the said objectives.

The findings supported both hypotheses. People with external Locus of Control were less likely to practice prudent financial management practices. The observation supports Rotter's Locus of Control theory, that externals believe that what happens to them is a matter of fate or luck and that they cannot control the happenings of life. Externals are therefore not motivated to plan and adopt restrictive measures in ensuring financial discipline. Furthermore, Locus of Control mediated the relationship between Financial Knowledge and behaviour significantly. The coefficient on the independent variable is smaller when paired with the mediator than when regressed solely. This implies that an external person may possess the knowledge and skills but may still not practice good financial behaviour.

Another study that highlight the effect of Locus of Control on financial behaviour was conducted by Cobb-clark, Kassenboehmer, and Sinning (2013). Their study analysed the relationship between a person's Locus of Control and savings. Locus of Control was used as one of the major components of self-control in measuring its relationship with savings. Financial behaviour was measured in terms of wealth accumulation, the rate of savings and the portfolio choices made by households. Savings decision has mostly been linked to the life cycle hypothesis even though there has been some argument that a savings model should capture a component of temptation on the part of the individual or household. Thus, this research dwells more on the behavioural life cycle hypothesis that emphasizes the importance of mental accounting, framing and self-control in understanding household savings decisions.

The target population were heads of households through the Household, Income and Labour Dynamic in Australia (HILDA) survey. The study focused on couples who have been together for at least 4years ranging from 2002-2006 and within the ages 25-75 years. This resulted in a sample estimate of 1,903 couples. In measuring wealth accumulated by the household, net worth was derived by a measure of assets and liabilities that have been acquired at the household level. Assets types included financial wealth, business equity, real estate equity, vehicles and pensions. Locus of Control was measured using the seven original items of the Psychological Coping Resources Component of the Mastery Module developed by Perlin & Schooler (1978). Mastery captures beliefs about the extent to which an individual controls life outcomes. Ordinary Least Squares (OLS) were used for the analysis.

The result concluded that internal Locus of Control is related to higher savings both in levels and a fraction of permanent income. The study observed a substantial effect of Locus of Control on savings after controlling for educational attainment and permanent income. Their results further suggest that in those households where the focal person is highly influenced by external Locus of Control, savings and allocation of wealth into retirement plans available are given less priority. This makes such households vulnerable and susceptible to financial distress in the future (Cobb-clark et al., 2013). The wealthy are seen to exhibit a higher level of internal Locus of Control which makes them believe that they can control the things that happen to them, take more responsibility for the outcomes in their lives and show a stronger ability to solve problems (Klontz, Bradley & Sullivan, 2015).

Furthermore, a study by Rasheed, Rafique, Zahid, Akhtar (2018) on the factors influencing investment decisions sought to moderate the impact of availability and representative bias on the relationship between investor decisions and Locus of Control. Certain heuristics affect investment decisions as Behavioural Finance posit, and the most commonly used heuristics are representative and availability bias. Representative bias is when an investor makes a decision based on generalizations due to similarities that may exist between the existing situation and the expected future happenings when investors use mental shortcuts and rules of thumb in decision making. Availability bias occurs when decision-makers rely on information readily available in decision making instead of examining other relevant sources (Rasheed, Muhammad Haroon; Rafique, Amir; Zahid, Tayyaba; Akhtar, 2018). This study focused on the internal Locus of Control.

The study used a sample of three hundred (300) investors from three stock markets within the cities. Out of the total questionnaires distributed, 271 was received, and 227 was used for the analysis as a result of missing values. The convenience sampling method was used for the selection which resulted in a higher response rate compared to other studies that uses probability sampling (Ismail et al., 2013; Sundarasen & Rahman, 2017). Questions on

Locus of Control were adapted from an instrument developed by Furham (1986). Eight questions were adapted to measure the Locus of Control, focusing on the internal Locus of Control. Structural Equation Modelling was used to establish the relationships.

Conclusions drawn from the study indicates that internal Locus of Control does not moderate the influence of representative and availability bias of investors decisions. The assertion that internal belief of being in control of the happenings in their life motivate them to take investment decisions based on intuition and gut feeling was not supported

A study by Rasyid et al. (2018) measured some factors that influence the investment decisions of people. More specifically, the effect of Financial Knowledge, Locus of Control and Income was considered. The first hypothesis tested was that the Locus of Control has a significant effect on investment decisions. Locus of Control was analysed for both internal and external and it was expected that internals will exhibit a positive relationship with investment decisions, whiles externals due to their belief may reflect a negative relationship.

The target population were permanent employees of PT Pertamina, of Padang. In all, sixty (60) questionnaires were administered, and forty-three (43) responses were received. A purposive sampling technique was used. Data were first grouped into internal and external Locus of Control, after which multiple linear regression analyses were conducted using the SPSS software package. Questions on Locus of Control were sourced from Rotter's 1996 scale as used by other studies like Perry and Morris (2006)

The study concluded that the Locus of Control does have an effect on a person’s investment decisions. The regression showed a significant positive effect between Locus of Control and investment decisions. Locus of Control, income and Financial Knowledge explained about 54percent of the variations in financial behaviour being the investment decisions.

Another study that brings more light on the confluence of Locus of Control and money disorders was conducted by Taylor, Klontz and Lawson (2017). The study examined the relationship between Locus of Control and money management disorders among 164 college students. The focus of the study was to examine the strength of the associations as some previous studies had reported some linkage between money disorder and Locus of Control. The study also sought to use a more rigorous and comprehensive measure to establish the relationship between money disorder and Locus of Control.

The money management disorder being tested was based on Klontz Money Behaviour Inventory (Klontz et al, 2012) which identifies about eight forms of money disorders. The authors used compulsive buying disorder, workaholism, gambling disorder, hoarding disorder, financial enabling, financial dependence and financial denial as a measure of money management disorder even though previous studies usually use credit card usage to examine how specific money disorders relate to Locus of Control. The predicted variables were gender, ethnicity and culture, socio-economic status and external Locus of Control. Locus of Control was measured using Rotter’s scale (1975) in the form of a Likert scale questionnaire. Hierarchical multiple regression was used to test the relationship between Locus of Control and money management disorders. Pearson product-moment correlations were conducted.

The study observed that external Locus of Control is a contributing factor in money management disorders. Locus of Control and other demographics explained about 20 percent of the variations in money disorder. All the seven disordered money behaviours except workaholism showed a significant relationship with the external Locus of Control. This implies that externals are highly at risk of engaging in improper financial behaviours and thus are more likely to suffer financial snags.

We further expect from this study that Locus of Control will have a significant effect on financial behaviour.

Income

Individuals with higher levels of disposable income are often seen to demonstrate responsible financial management behaviours (Perry & Morris, 2006). The research by Perry & Morris (2006) aimed to explain consumers' financial behaviour by examining individual differences in Financial Knowledge, income, and Locus of Control on financial behaviour. The study also moderated the relationship with the ethnic groups of the respondent for possible influence. Financial behaviour was measured as consumers' propensity to save, budget and control spending. As reviewed in detail under Locus of Control, the research concluded that consumers who earn higher income are more likely to save part of their income for future use than low-income earners. Although there is a positive relationship between income and financial behaviour of consumers, the effect size is less compared to Financial Knowledge indicating that the variations in financial behaviour can be attributed more to differences in the consumer’s Financial Knowledge compared to income.

This position was, however, not supported by a recent study that used the same variables as Perry and Morris (2006) study -income, Financial Knowledge and Locus of Control- in explaining the financial behaviour of a group of workforces. The difference between the two studies was that ethnicity was used as a moderating variable in the first study (Arifin & Anastasia, 2017; Grable, Park, & Joo, 2009). The study of Arifin (2017) focused on the financial behaviours of the workforce who have jobs and are already earning income as against college students who may not earn regular income in the previous study by Perry and Morris (2006). The study was based on the theory of planned behaviour.

The target population for the research were workers in Jakarta, one of the regions in Indonesia. Adopting purposive sampling technique, the researchers were able to receive 503 responses as their sample for the study. The data collection instrument used were online questionnaires administered through Facebook, WhatsApp, email and google docs. Income was measured as a dummy variable; either a respondent earns below or above five million rupiahs a month, whiles 5-point Likert scale questions were used in measuring the other independent variables under study. Structural equation modelling based on Partial Least Squares was used as the analytical tool in establishing relationships and correlations. Financial behaviour was measured using certain indicators like financial controlling, paying bills, financial planning, fulfilling one’s necessities and savings.

Initial analysis indicated that financial planning made the highest contribution to financial behaviour with 42.043 value, followed by the others. This implies that to improve the general financial behaviour of a person. Adequate attention must be given to his/her financial planning behaviour. Conclusions drawn from the hypothesis testing on the impact of income on financial behaviour indicated that income levels do not have a direct impact on financial behaviour. The observation could be explained that people with high income do not always adopt prudent financial management practices, and thus, at either high or low-level income, a person may choose to manage his/her money and other financial related activities judiciously. This observation defers from the study by Perry and Morris (2005) where it was observed that income positively influence behaviour and that those with higher income levels appeared to be managing their finances properly.

Recent studies appear to support the findings of Arifin (2017) (Kholilah and Iramani (2013), Ida and Dwinta (2010) and Grable et al. (2009). However, it must be noted that the type of financial behaviour being measured will determine the influencing factors that may motivate them. Rasyid et al. (2018), in their studies, measured financial behaviour as investment decisions of employees. With an effect size of 57.5 percent, it was observed that Financial Knowledge, Locus of Control and income level explained the variations in investment decisions of employees. Income was found to have a positive relationship with financial behaviour. A detailed review of this article was made under the Locus of Control subheading.

In an article by Zakaria, Mohd Jaafar, & Marican (2012) on the topic "financial behaviour and financial position: a Structural Equation Modelling

(SEM)", the authors examined the determinants of financial behaviour and position, narrowing on the impact of responsible financial behaviour on the financial position, other than having an adequate income. PLS-SEM is an emerging analytical tool that allows researchers to estimate complex models with many constructs, indicators and structural paths with virtually no limitations on data normality. Very few studies have been found to use this analytical tool in the walk-through literature.

The study focused on the working populace, with the target population being urban households in Klan Valley, Malaysia. Data were collected through a self-administered questionnaire with a sample size of 1000 working class. A stratified multi-stage sampling method was used to give consideration to the socio-economic and geographical differences that exist among the urban workers. The researchers used PLS-SEM in testing the hypotheses. Income was expected to positively correlate with both financial behaviour and position.

Findings from the path analysis show that income correlates positively with financial behaviour, as hypothesized. A household with a high-income level appears to exhibit responsible financial behaviour, and the effect is greater if heads of households are financially knowledgeable. Financial behaviour was measured as having a retirement fund, savings, financial planning, budgeting and paying bills on time. Similarly, Perry and Morris, in their research, measured financial behaviour in the same way except that they used Ordinary Least Squares (OLS) regressions to carry out the analysis compared to SEM being used in this study. Also, the target group for Perry and Morris was students compared to the working class, with about 68 percent of the respondents being payroll workers. However, the findings were in the same direction. Income positively influenced financial behaviour, and from the recent work by Zakaria, Ismawati et al.(2012), the income effect on financial behaviour is both direct and indirect as against Financial Knowledge which showed only the direct effect, even though the effect size of 48.5 percent was substantial.

The findings of this research are, however, inconsistent with that of Arifin (2017), even as both studies use similar analytical tools (SEM) and measured financial behaviour from virtually the same areas. Income was measured as a dummy variable by Arifin (2017) but was ordered by Zakaria, Mohd Jaafar, & Marican (2012). Also, Arifin (2017) conducted the studies based on the theory of planned behaviour but limited the independent constructs to Income, Financial Knowledge and control as the recent study. Although both studies used the same variables in the research, Zakaria, Mohd Jaafar, & Marican (2012) mediated the relationship between control and financial behaviour with Financial Knowledge. The relationship was significant and negative, indicating that there exists an influence from control on Financial Knowledge. It was, however, not clear how the control was captured, either external, internal or both. Further studies are required to clarify this observation.

Family Support

Based on the extended family system mainly operated by the Ghanaian society, an individual may have lower levels of salary but may also have other sources of finance from family, friends and the community at large, which may contribute to the financial behaviour exhibited by the individual. In the study by Hsee and Weber (1999) (as cited in Grable et al., 2009), the cultural difference of collectivism and individualism between Chinese and Americans contributed to their risk-taking ability and financial behaviour. Chinese being more risk-tolerant stems from the collectivist society where an individual receives financial help from family and the society in difficult times. This phenomenon was termed the ***cushion hypothesis***.

In a study by Grable, Park, and Joo (2009) on cultural differences that exist among Americans and Koreans and how this could affect their financial behaviour, the study repeated the study of Perry and Morris (2006) in a different cultural setting. Koreans staying in America and Americans were used as respondents for the research even as Perry and Morris (2006) used Hispanics, Whites and African Americans for their comparison. Koreans exhibited Collective cultural differences against the individualist cultural orientation of the Americans. It was observed that the more financially knowledgeable the Koreans were, the less responsible financial behaviours they exhibited compared to the Americans, where higher Financial Knowledge gave a corresponding higher responsible financial behaviour. The difference was, however, attributed to the variations in culture between the Koreans and the Americans. The Koreans are similar to the Chinese in terms of the collectivist cultural settings where the society and extended Family Support members during challenging moments of life and, as such, are cushioned from the hardships that may result due to certain financial decisions.

This study also seeks to consider other sources of finance by our respondents apart from their income levels used by most of the existing literature reviewed in order to better understand their behaviour. The possibility to receive Family Support when there are financial challenges may influence the way people make decisions and or adopt responsible financial practices.

Summary of research gaps

Even as several researchers have recommended financial education as the solution to bridge the financial literacy gap and foster good financial practices, individuals who may have the knowledge and skills that equip them to practice proper financial management still do not observe such behaviour (Willis, 2011).

Over the years, much attention has been devoted to measuring financial literacy levels of various groups as well as creating awareness of financial products, but the other factors that affect change in behaviour have been given little attention. This has been reflected in the non-significant improvement in behaviour over the years after all the education and awareness were created. The few studies that have sought to identify the antecedents of financial behaviour have focused on mostly control, financial knowledge and income (Arifin & Anastasia, 2017; Rasheed, Rafique, Zahid, Tayyaba, Akhtar, 2018; Perry and Morris, 2006).

Existing literature in Ghana has followed the global trend by measuring and explaining financial literacy levels of various groups (Yankey, 2016) or whether variations exist on the basis of sex in terms of existing literacy levels (Adam, Boadu, & Frimpong, 2018; Adam, 2017). Other literature has also linked financial literacy to the financial wellbeing of individuals (Adam, Frimpong, & Boadu, 2017) and financial literacy to firm performance (Agyei, 2018). None of the studies was interested in examining the determinants of Personal Financial Behaviour, even though the study by Adam et al. (2018) sought to examine the influence of financial literacy, behaviour, Family Support, number of dependent and retirement planning on the financial wellbeing of retirees. The focus of the study by Adam et al. (2018) was on the impact of financial behaviour on financial wellbeing. The current study extends further to analyse the impact of Financial Knowledge, Descriptive Norm and Locus of Control on Financial behaviour considering the beliefs of the individual such as Financial Self-Efficacy and Financial Attitude using the reasoned action approach.

The reasoned action approach to behaviour considers individual behaviours being influenced by the values/norms of the individual and society and the self-confidence that the person possesses about the behaviour to be adopted. This theory has not been applied in financial behaviour to the best of the researcher's knowledge, and thus, the study used the reasoned action theory in predicting the financial behaviours of formal sector workers.

Although people do not share very often how they manage their financial resources, some people appear to be influenced by the behaviours of friends and families around them especially within the society and the work environment. Some people may take certain decisions based on advice from friends, colleagues and relatives, and this can influence their general financial behaviour. This aspect of financial behaviour influence has been captured as the Descriptive Norm in the reasoned action theory. The Descriptive Norm has been given little attention in research in explaining the antecedents of an individual's financial behaviour.

Financial Self-Efficacy is a non-cognitive factor which when combined with cognitive factors, may explain financial behaviour better (Farrell et al., 2016). Research over the years has given inadequate attention to this combination, consequently this study contributed to filling the gap.

Furthermore, studies on personal financial behaviour have not established relationships between financial attitude, self-efficacy and some specific financial behaviours like budgeting and cash flow management. Research on the budgeting behaviour of individuals in specific has received little attention in the literature; thus, this study contributed to the body of knowledge.

Likewise, existing studies in this area were mainly focused on students' groups (Adam et al., 2017; Herawati, Candiasa, Yadnyana, & Suharsono, 2018; Perry & Morris, 2006). However, major household decisions on financial matters are taken by the income earners or the breadwinners of the home; therefore, this study looked at the financial behaviour of workers in the formal sector.

In as much as the financial actions and inactions of people may be attributed to their Financial Knowledge and other cognitive factors, the belief that a person will get financial support in times of financial difficulty does affect how one manage his/her financial resources. This phenomenon, termed the cushion hypothesis(Weber & Hsee, 1998), has scarcely been tested in predicting the financial behaviour of people. The current study contributes to this research area.

The current study examined how Financial Attitude, Financial Self-Efficacy, Financial Knowledge, Locus of Control, Family Support and some demographic variables like income, family support and age influence financial behaviour. Also, whether age and income levels influence individual savings rate. The explanatory research design was employed with quantitative analysis in the study. The data source used in the study was primary which was obtained through questionnaires and analysed using PLS-SEM.

Conceptual Framework

The philosophical reasoning behind an individual's financial behaviour can be rational or irrational based on the environment in which the decision is taken. A determinist will say that it is not the case that human actions are free; actions and inactions are determined partly by external factors (Weissman, 2018). The conceptual framework for the study is based on three theories, namely the reasoned action approach (Ajzen & Fisbein, 2010), the life cycle hypothesis (Modigliani & Brumberg, 1950), the cushion hypothesis (Hesee &Weber, 1998) and the concept of Locus of Control (Rotter, 1954). The reasoned action approach serves as the underlying theory from which financial attitude, descriptive norm, financial self-efficacy, financial behaviour intention and actual financial behaviour variables were adapted. Financial knowledge was adapted based on the reasoned action approach theory's assumption that background factors influence the formation of attitude and perceived control. Thus financial knowledge was expected to influence Financial Attitude, Financial Self-Efficacy and Actual Financial Behaviour. The reasoned action approach framework was extended to introduce the locus of control concept as another variable that may influence the financial behaviour intention of workers. Variables like the Income level, age of respondent and assurance of family support were introduced as moderators between the financial behaviour intention and the actual financial behaviour based on the life cycle hypothesis and the cushion hypothesis.

Based on the findings from the literature review, the financial behaviour of individuals can be measured using a number of criteria such as debt management (Farrell et al., 2016), cash flow management, financial planning and budgeting (Arifin, 2017; Perry and Morris, 2006), savings, investment, educational and retirement plans (Farrell et al., 2016; Fünfgeld et al., 2009) and the type of financial asset held by people (Farrell et al., 2016). In this study, Actual Financial Behaviour was measured from two key areas which are financial planning/ budgeting and savings behaviours of an individual. Actual Financial Behaviour is the dependent variable.

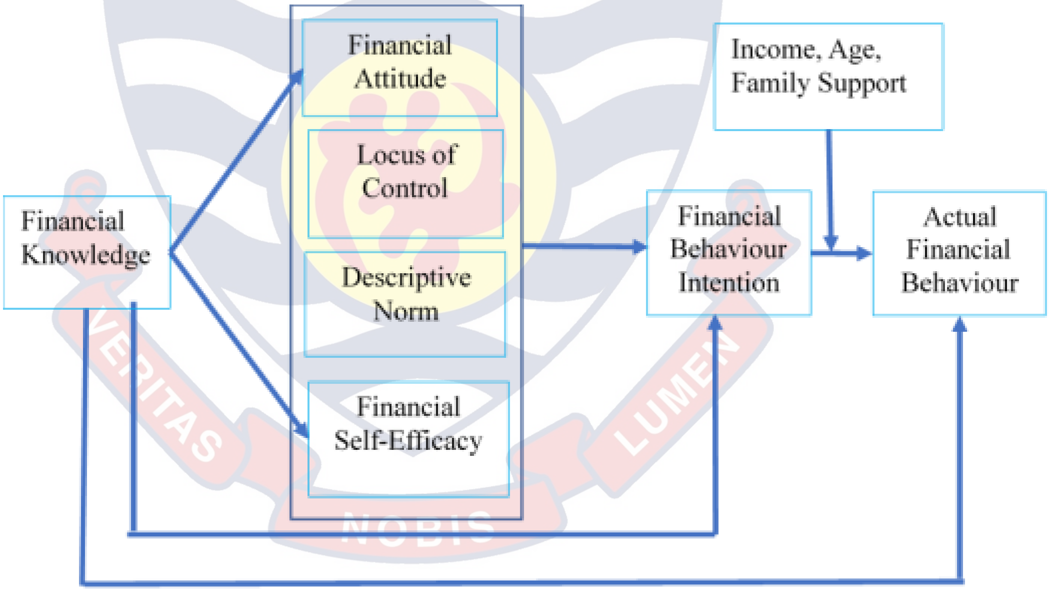
Financial Attitude
Locus of Control
Descriptive Norm
Financial Self-Efficacy
Income, Age, Family Support
Financial Knowledge
Financial Behaviour Intention
Actual Financial Behaviour

Figure 1: Conceptual Framework
Source: (Researcher, 2021)

In explaining an individual's Actual Financial Behaviour as depicted in Figure 1, the study considered Financial Knowledge as an independent factor. Financial Knowledge was measured as Perceived and Actual Financial Knowledge of workers. Perceived Financial Knowledge is the self-assessed knowledge level of respondents, whiles the Actual Financial Knowledge was scored based on a test on financial terms and calculations done by the respondents as they answered the multiple-choice questions through the data collection platform.

From the reasoned action approach, the background knowledge, which is Financial Knowledge in the case of this research, was expected to influence directly Actual financial behaviour as the first research objective. Financial Knowledge was also expected to impact on Financial Attitude and Financial Self-Efficacy of workers as the second research objective. Then, Financial Knowledge, Financial Attitude, Financial Self-Efficacy, Locus of Control and the Descriptive Norm together determine the intention to take on a particular financial behaviour as the third research objective. Actual control variables, also from the life cycle hypothesis and the cushion hypothesis, were used to moderate the relationship between the intention created to carry out a particular financial behaviour and the Actual Financial Behaviour as the fourth research objective. According to Fishbein & Ajzen, (2010), not all intentions are acted and thus, Actual control variables including income levels, family support and age of respondents were used as moderators. Financial Attitude was measured using the normative and behavioural beliefs based on the background theory of reasoned action approach.

Chapter Summary

The study adopts the reasoned action approach theory propounded by Fishbein & Ajzen (2010) as the bedrock theory for the research. The theory seeks to predict both rational and irrational behaviours of people based on the individual concepts adopted by the developers of the theory. The life cycle hypothesis, the cushion hypothesis and the concept of Locus of Control were added to the reasoned action approach theory in explaining the financial behaviour of formal sector workers. It was expected that the sub-theories, when added to the base theory, would help in explaining financial behaviour better.

Upon reviewing the theories and empirical literature, factors like Financial Knowledge, Financial Attitude, Financial Self-Efficacy, Locus of Control and Descriptive Norm were identified to influence personal financial behaviour with income, age and family support moderating the intention-Actual Financial Behaviour relationship. These are the variables of the conceptual framework.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter encapsulates the detailed methodology being used to achieve the research objectives outlined for the study. The chapter starts with the philosophical stance of the study alongside the research approach. It further discusses the study design adopted, target population, sampling procedures, sample size and the data gathering procedures. The chapter also discusses issues of validity and reliability, data process and analysis, as well as ethical concerns relating to the study.

Research Philosophy

The methodology adopted for any research was broadly influenced by the philosophical stance of the researcher and the social phenomena being studied (Isomidinova & Singh, 2017). Saunders, Lewis and Thornhill, (2016) explains that a research philosophy entails the system of beliefs and assumptions about the construction and development of knowledge. The philosophies, together with the methods of research, create the paradigm. According to Newman (2009), "*A Paradigm is an integrated set of assumptions, beliefs, models of doing research and techniques for gathering and analysing data" (p41)*. The adopted paradigm for the study must be in line with the ontology and the epistemological stance of the researcher. Realism and relativism are the two fundamental ways of conceiving reality. From a realist perspective, truth is one and can be ascertained through objective and scientific measurements, making it possible to generalise the findings whilst a relativist assumes that reality is context-bound as truth depends on the meaning one attaches to it. Results from such studies cannot be generalised easily.

The ontological belief influences the epistemological procedures in gathering knowledge. Epistemology constitutes accepted, valid and legitimate knowledge (Saunders et al., 2016). Also, the researcher's relationship with the research is of utmost importance. Etic is an epistemological approach to knowledge that follows from the realist objective way of discovering reality. It requires the researcher to be independent of the research.

There are three major philosophies: Positivism, Interpretivism, and Pragmatism (Saunders et al., 2016). The realist ontology underpins positivism philosophy. Truth is assumed to be universal and can be objectively observed without the researcher being involved. Knowledge is acquired deductively through scientific methods to provide law-like generalisations. Positivism uses observable and measurable facts in explaining social phenomena. In terms of axiology, positivism philosophy assumes value-free research where the researcher is expected to be detached and independent of the study, thereby maintaining an objective stance. Methodologically, Positivism adopts highly structured, large samples with quantitative measurements and analysis of a range of data.

Some of the research philosophies have developed extensions over the years. The most prominent are the post-positivism, critical realism and postmodernism which can all be found on the Realist (Objectivist) and the Relativist (Subjectivist) continuum. Promoters of Post positivism believe that reality exists but can be known only imperfectly and probabilistically (Henderson, 2011). Post positivism retains the idea of objective truth as

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Positivist but also believes that social entities and organisations are not as real as physical objects and natural phenomena; therefore, there could be biases based on human conjectures. A post-positivist believes that human knowledge is based not on a priori assessments from an objective individual but upon human inferences. In terms of axiology, a post-positivist accepts that biases are undesired but inevitable, and so the researcher must identify and control them. The methods applied in research are mostly quantitative in nature, following from the realist ontological stance.

Critical realism also assumes that knowledge is external and independent as the positivist assumes but also posit that reality is not directly accessible through observations and knowledge of it because what people experience is a manifestation of things in the real world and not the actual things. That is, what has been observed is only a small part of everything that could be seen. Based on these assumptions, critical realist adopts epistemological relativism in gathering and analysing data.

Interpretivism philosophies are based on the relativism ontology that emphasizes that humans are different from physical objects because they create meanings from the environment based on happenings at a particular point in time, the circumstances under which the social phenomena are observed and their cultural background. Interpretivists argue that human and social issues cannot be studied in the same way as the natural sciences. Hence, social sciences research must be different from natural science research. The interpretivist, therefore, adopts the subjective approaches in research to create new, deeper understanding and interpretations of social issues. The

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researcher's values also inform the findings of the study as the researcher is considered an integral part of the study.

Pragmatism is a philosophical stance that focuses primarily on the problems that need to be solved and the expected outcome without much considerations on abstract distinctions in terms of how reality is conceived (Saunders et al., 2016). Reality is the practical consequences of ideas to a pragmatist researcher. Thus, the researcher aims at contributing practical solutions to societal problems by adopting either / both subjective and objective methods in research. Research values also influence the outcome and interpretation of results.

The study employs the post-positivist approach in learning, which assumes that knowledge is objective and can be obtained deductively through empirical research based on theories or hypotheses. Post Positivism is appropriate for the study because of its objective and scientific way of measuring and gathering data. The philosophy is also suitable for research in the Social Sciences as it takes cognisance of the human conjectures. Also, results from the sample can be generalised for the whole study population of formal sector workers.

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Research Approach

From the philosophical underpinnings already discussed, Creswell (2013) emphasizes that the research approach selected should fit the general philosophical ideas behind the inquiry, data collection methods to be applied and data analysis procedures. The three main research approaches are quantitative, qualitative and mixed methods. A quantitative approach to research follows the positivist paradigm in knowledge acquisition. Thus, it uses objective and scientific ways in research, exhibiting value-free study with a high degree of reliability compared to the qualitative research approach (Cooper and Schindler, 2008). The quantitative methodology examines relationships among variables and supports the deductive approach in terms of theory development through the testing of hypotheses. Using a very large population, as in the case of this study where personal finance behaviour of people within the formal sector is being analysed, the quantitative methodology allows generalisation from the sample observation to the total population. It also allows analytical inferences to be carried out.

Notwithstanding the seemingly enormous benefits that the quantitative research approach offers to researchers, some setbacks may render this approach inappropriate or unsuitable. First, certain social phenomena require an in-depth interview and personal experiences of respondents in order to best understand and explain the research objective. Quantitative methodology alone cannot give a better result compared to qualitative and mixed methods (Crotty, 1998). Another limitation of the quantitative method of research is the lack of flexibility in the process of collecting and analysing data.

Qualitative research, on the other hand, is frequently linked to the interpretivism philosophical standpoint because of its subjective ways of collecting and analysing data in order to make socially constructed meaning of the social phenomena under study (Saunders, Lewis & Thornhill, 2016). Qualitative research method have some merits that make it suitable in understanding certain social phenomena. Qualitative research allows for people's personal experiences to be captured, thereby providing a better understanding of issues (Crotty, 1998). Also, there is flexibility in data collection structure, especially with interviews where data collected is based on the respondent's own categories of meaning, unlike a close-ended questionnaire for a survey in which the respondents only choose from possible options. Further, Fetters, Curry, & Creswell (2013) opine that qualitative research allows for cross-case comparisons and analysis by the researcher. In terms of theory development, the qualitative method is suitable for inductive analysis, where data is first collected and analysed to identify themes and patterns.

Some limitations associated with such methodology include the difficulty in generalising results. This is due to the subjectivity involved in data collection and analysis procedures (Meissner, Creswell, Klassen, Plano, & Smith, 2011). The values of the researcher could cloud the meanings that will be attributed to the responses given by the respondents. Another difficulty of this research approach is that the methodology does not support hypothesis testing (Polit & Tatano, 2010). This study is testing Financial Knowledge and its effect on personal finance behaviours of formal sector workers given certain mediators and moderators. This makes the qualitative approach not suitable for this study. Lastly, qualitative data cannot be used in drawing inferences and predictions as characterised by quantitative data (Scotland, 2012).

The mixed-method approach intentionally integrates qualitative and quantitative methods to ascertain a real-life contextual understanding of social issues under investigation (Meissner et al., 2011). Mixed methods draw strength from both the quantitative and qualitative techniques in achieving the research objectives. There are several combinations made, such as concurrent, sequential exploratory and sequential explanatory approaches. The concurrent mixed method approach applies the qualitative and quantitative techniques to data collection and analysis in a single phase (Saunders, Lewis & Thornhill, 2016).

Under the Sequential exploratory approach, the researcher starts the study with the qualitative technique in data collection and analysis and further uses the quantitative technique in validating or confirming results. Comparatively, the sequential explanatory approach starts the research process with quantitative techniques in collecting and analysing data. Subsequently, the qualitative technique is used to further expand or elaborate on the initial findings achieved. Mixed methods allow researchers to view problems from multiple perspectives to enhance and enrich the meaning of certain social phenomena. A merit of this method includes an in-depth understanding of social issues.

Study Design

The explanatory research design was employed in this study because it goes beyond exploratory and descriptive analysis and emphasises the relationship among variables in predicting the outcome of particular social phenomena under investigation. The explanatory design uses deductive reasoning based on grounded theories to predict correlational outcomes, and this helped the researcher explain the financial behaviour of individuals (Ampah, Ambrose, Omagwa, & Frimpong, 2017; Perry and Morris, 2006).

A cross-sectional study design is adopted for the study. The objectives of the study can be achieved using the cross-sectional design as it gives a snapshot of the social phenomena being observed. This study design collects data at one point in time for analysis, and since the research is non-interventional, the cross-sectional design is appropriate.

Study Areas

The areas of study were the Accra Metropolitan in the Greater Accra Region, Komenda-Edina-Eguafo-Abriem Municipality and the Twifo Ati-Mokwa District, both in the Central Region.

Accra Metropolis

The Accra Metropolis is one of the twenty-six (26) MMDAs in the Greater Accra Region. It was established in 1898 before the constitutional rule. However, it obtained its legal basis in the Local Government Act 1993 (Act 462), which has been recently amended by the Local Government Act 2016 (Act 936) and LI (2034).

Accra serves as the regional capital of Greater Accra and also the national capital of Ghana. Accra is derived from an Akan word ‘nkran’ or ‘nkranfo’ meaning ‘an army of ants’. The name is attributed to the many ant hills found on the land by the early inhabitants of the Accra plains.

The Metropolis shares common boundaries with Ga West Municipal to the North, Ga South Municipal to the West and La Dadekotopon Municipal to the East with the Gulf of Guinea as its southern boundary. It covers a land area of 139.674 square kilometres representing approximately 0.6 percent of the total surface area of the Greater Accra Region.

The Metropolis is well served with road networks. Almost all the existing settlements in the Metropolis are reached by the improved condition of tarred roads and feeder roads. (Ghana Statistical Service, 2014). The study selected Accra Metropolitan Assembly to represent the big cities in the target population. Accra hosts almost all headquarters of the major formal sector organizations in the country. Even though the focus of the study is not on the organization but the employees within them, the city brings on board the representation needed from various sectors of the economy. The map of the Metropolis is shown in Appendix K

Komenda-Edina-Eguafo-Abriem Municipal

The Komenda-Edina-Eguafo-Abriem Municipality constitutes four traditional states/paramouncies put together to form a political district with Elmina as the municipal capital. The municipality was carved out of the Cape Coast Municipal Council in 1988 by the Legislative Instrument (LI 1857). Elmina was the first point of contact with the early Europeans to this country, the Portuguese, and therefore witnessed western civilization and influence as well as other economic activities.

Komenda Edina Eguafo Abriem (KEEA) Municipality shares boundaries, to the south with the Gulf of Guinea, west with Mpohor-Wassa East District Municipality, to the east Cape Coast Metropolis and the north with Twifu Heman Lower Denkyira District (Ghana Statistical Service, 2014). Komenda Edina Eguafo Abriem Municipal was randomly selected from a total of One hundred and nine (109) municipalities as part of the population from which formal sector workers will be sampled. The map of the Municipality is shown in Appendix K

Twifo Atti-Morkwa District

As part of the twenty administrative districts in the Central Region, the Twifo Atti-Morkwa District is located in the northern part of the region. The District was formerly part of Twifo-Hemang Lower Denkyira District with

Twifo Praso as their capital before the split by government in 2012 into Twifo Atti-Morkwa and Hemang Lower Denkyira Districts based on the Local Government Act 462 of 1992, LI (2023). The Twifo Atti-Mokwa District is made up of five area councils with Twifo Praso as its capital.

The District shares boundaries to the north with Upper Denkyira East Municpal, to the south with Hemang Lower Denkyira District, to the west with the Mpohor Wassa East District and to the east with Assin North Municipal. The communities within the District mostly lack basic social amenities and infrastructure. Principally among them are good road networks, school blocks, hospitals, markets. The lack of these socio-economic infrastructures encourages rural-urban migration and hinders socio-economic development and poverty reduction (Ghana Statistical Service, 2014).

Studies have also related personal financial behaviour to the poverty levels of households (Adam et al., 2017; Saidi et al., 2016). Saidi et al. 2016 considered the determinants of financial problems among adults, and the findings show that financial behaviour is one of the influencing factors among other determinants. This study randomly selected Twifo Atti-Morkwa District from a total of One hundred and forty-five (145) districts in Ghana, focusing on the formal sector workers within the district. The map of the District is shown in Appendix K.

Target Population of the Study

Accra Metropolis

The population of Accra Metropolitan Assembly (AMA), according to the 2010 Population and Housing Census, is 1,665,086 representing 42 percent of the region’s total population. Males constitute 48.1 percent, and females represent 51.9 percent. 100 percent of the population are living in urban localities. The proportion of youth (less than 15years) within the municipality to the population is 42.6 percent whiles the elderly (60 years and older) represents only 5.9 percent. This implies that a chunk of the population falls within the working labour force. The average household size in the metropolis is 3.7 persons per household with an 89 percent literacy rate.

Regarding economic activities, 70.1 percent of the population aged 15 years and above are considered economically active as against 29.9 percent who are mainly students, aged or sick. 93 percent of the economically active population are employed in various sectors of the economy. The formal sector employs about 26 percent of the economically active population within the Metropolis. The breakdown of the formal sector is shown in Table 2.

Table 2: Formal Sector of the Employed Population in Accra Metropolis

Employment Sector	Both sexes	
	Number	Percent
Public (Government)	60,483	30.08
Private Formal	130,302	64.80
Semi-Public/Parastatal	1,231	0.61
NGOs (Local and International)	7,749	3.85
Other International Organisations	1,319	0.60
Total	201,084	100.0

Source: Ghana Statistical Service, (2014)

Komenda-Edina-Eguafo-Abriem Municipal

The population of the Komenda-Edina-Eguafo-Abriem is 144,705 representing approximately 6.6 percent of the Central Region’s total population according to the 2010 population and housing census. The male and female population mix is 48.2 percent and 51.8 percent, respectively, with 64 percent of the population living in rural localities. The proportion of youth (less than 15years) within the municipality to the population is 40.2 percent whiles the elderly (60 years and older) represents only 8.6 percent. This implies that the majority of the population falls within the working labour force. The average household size in the municipality is 3.9 persons per household with a 90 percent literacy rate. The proportion of literate males is higher (82.4%) than that of females (66.2%).

In terms of economic activities, 67.6 percent of the population aged 15 years and above are considered economically active as against 32.4 percent who are mainly students. 93.6 percent of the economically active population are employed in various sectors of the economy. The formal sector employs about 12.2 percent of the economically active population within the Municipality. The breakdown of the formal sector is shown in Table 3

Table 3: Formal Sector of the Employed Population in KEEA

Employment Sector	Both sexes	
	Number	Percent
Public (Government)	3,779	56.56
Private Formal	2,519	37.70
Semi-Public/Parastatal	46	0.69
NGOs (Local and International)	337	5.04
Total	6,681	100

Source: Ghana Statistical Service, (2014)

Twifo Atti-Morkwa District

The population of Twifo Atti-Morkwa District is 61,743 representing 2.9 percent of the Region’s total population according to the 2010 population and housing census. The male and female population mix is 49.0 percent and 51.0 percent, respectively. The proportion of youth (children under 15years) within the District to the population is 76.6 percent whiles the elderly (60 years and older) represents only 6.8 percent. This implies that a chunk of the population falls within the non-working labour force, with less than 18% of the total population classified within the active labour force. The average household size in the Districts is 4.8 persons per household with a 77.7 percent literacy rate.

In terms of economic activities, 73.7 percent of the population aged 15 years and above are considered economically active as against 26.3 percent who are mainly students, perform household duties, too young or old to work. 96.7 percent of the economically active population are employed in various sectors of the economy. The formal sector employs only 12.3 percent of the economically active population within the District. The breakdown of the formal sector workers is shown in Table 4

Table 4: Formal Sector of the Employed Population in Twifo Atti-Morkwa District

Employment Sector	Both sexes	
	Number	Percent
Public (Government)	2,051	65.05
Private Formal	1,025	32.51
Semi-Public/Parastatal	51	1.62
NGOs (Local and International)	26	0.82
Total	3,153	100

Source: Ghana Statistical Service, (2014)

Sampling Technique

Research is undertaken to gain knowledge about certain social phenomena within the organisation or society. In most cases, the target population are many such that a researcher may not be in a position to collect data on all possible respondents. Sampling is a research tool used to reduce the number of respondents for a particular study without changing significantly the possible results that is expected. There are three main reasons that are likely to influence the decision to sample when carrying out a particular study. First, the impracticability to survey the entire population for a research study is mostly the underlying factor that may require research to sample. The current study looks at the personal finance behaviour of formal sector workers in Ghana. The total population of the formal sector workers within the three districts are 210,918. It becomes practically impossible to survey the entire population or even the target population, and so the need to sample representatively from the target population such that the expected results may not differ significantly. Second, the reason for sampling is the budgeting constraint that inhibits census study even when it becomes practically possible to survey the entire population. Time, they say, is the greatest resource to every human, including the researcher. Time constraints may be another reason to sample from possible respondents in order to meet deadlines and save resources if the sample can provide the data necessary to achieve the desired results.

Sampling techniques are classified into two broad categories. These are probability and non-probability sampling methods. Probability sampling is also known as representative or random sampling. This sampling method offers every participant an equal and independent chance of being selected (Adam, 2018). Saunders et al. (2016) further explain that, with representative sampling, the possibility of each respondent being selected from the target population is known and is usually equal for all respondents. Some of the sampling techniques classified under probability sampling are simple random, systematic, stratified and cluster sampling.

Simple random and systematic sampling are mostly suitable when the target population under study is relatively homogeneous. Selection of respondents is randomly done under the simple random method whiles Systematic sampling requires only the first selection to be randomly picked and subsequent selection based on a skip factor which is calculated using the sample size (n) and the population (N) (Adam, 2018). Stratified random sampling is appropriate when a researcher wants to obtain information about a subsection of a population. The target population is normally grouped into strata based on similar characteristics of interest. On the other hand, the cluster sampling technique splits the target population into clusters based on a geographical or natural basis.

The study adopted multiple sampling techniques at various stages of data collection. A stratified random sampling method was used in selecting the initial groups, which are the metropolis, municipal and district. The stratified sampling method allows the population to be grouped into smaller homogenous clusters called strata to enable each group to be covered within the sample (Ampah et al., 2017). Three administrative districts are selected, comprising a metropolis, municipal, and district assembly from the country's southern zone based on environmental differences that are expected to affect behaviour. Formal sector workers within these districts are grouped into strata based on the Ghana Statistical Service database in 2010 population and housing census published in October 2014.

Two groups are created from the database, namely Public (Government) workers and Private Formal Workers. The semi-public/parastatal category is added to the Public (Government) workers, whiles NGOs and other international organisations are added to the private formal category for sampling purposes. The Public Sector workers are people working in government institutions in Ghana. The institutions are the Ministries, Departments and Agencies (MDAs), Security Services, Ghana

Education Services, Ghana Health Services, National Council for Tertiary Education, State-Owned Enterprises (SOEs). Seven institutions are selected for the study. The selected institutions are then grouped based on their presence within the districts used for this study. The unit of analysis is not the institutions but the formal workers within the institution being selected.

The Private sector in Ghana mainly constitutes the Utilities, Health, Education, Telecommunications, Petroleum, Finance and Insurance, manufacturing, Tourism and Hospitality Sectors. These sectors include small and medium-sized companies and large companies based on asset size and the number of employees. There are hundreds of companies in Ghana, but this study focused on workers within the Ghana club 100 companies since such organisations meet the basic criteria of formal organisations. Out of the hundred companies making up the club hundred list, a sample frame is created using companies who have branches/outlets in the three study areas of the research. The sample frame constructed was made up of three organisations identified in the study areas. These companies are GCB Bank, Scancom Ghana Ltd (MTN Ghana) and Ghana Oil Company Ltd. Some companies' peculiar to the study area were selected in each district to cater for the diversity of work. Scancom Ghana Ltd agents were used in districts where the company is not set up.

Table 5: Selected Institutions from which the Sample was Derived

Public Institutions	Private Companies
Accra	Accra
National Council for Tertiary Education	*Ghana Oil Company Limited (GOIL)*
National Accreditation Board	*GCB Bank Ltd*
Electricity Company of Ghana	*Scancom Ghana Limited (MTN Ghana)*
	State Insurance Limited
	Total Petroleum Ghana Limited
Komenda Edina-Eguafo-Abriem	Komenda Edina-Eguafo-Abriem
Ghana Water Company	*GCB Bank Ltd*
KEEA Municipal Assembly	*Ghana Oil Company Limited (GOIL)*
	Scancom Ghana Limited (MTN Ghana)
	Raindrop Water Bottling Company
	Elmina Beach Resort
	Nduom Group Ltd
Twifo Atti- Mokwa	Twifo Atti- Mokwa
Drivers and Vehicle Licensing Authority	*Twifo Oil Palm Plantation*
Twifo Praso District Hospital	*GCB Bank Ltd*
	Ghana Oil Company Limited (GOIL)
	Scancom Ghana Limited (MTN Ghana)

Source: Field Work, Sam (2021)

A simple random sampling method is used to select the organisations from the various sample frames for both the public and private formal organisations. Within the selected organisation, workers are grouped into strata, Junior staff, Senior staff and Management staff. From these strata, respondents are selected randomly. Simple random method offers respondents equal opportunity to be selected. Table 5 exhibits the selected organisations for the study.

Sample Size

Sample size computation is based on primary variables of measurement in the study. Variables of measurement can be continuous or categorical. Variables are considered categorical when they are dichotomous. Dichotomous variables take two forms, either “yes” or “no” responses.

Continuous variables can take more than two responses. Sample size determination using categorical variables results in large sample size because of the estimation of variance assumed, compared to the use of continuous data as a primary estimation determinant.

In this study, the dependent variable is a continuous variable, whiles some of the independent variables are categorical. Therefore, the sample size was determined using the categorical data formula by Krejcie and Morgan (1970), giving consideration to the requirement of the statistical analytical tool to be used in analysing the data. The assumptions underlying the Krejcie and Morgan (1970) sample size calculations are as follows:

Confidence level is estimated to be 5%

Population proportion is assumed to be .5

Degree of accuracy expressed as a proportion of .05

However, Hair et al. (2015) recommend that the sample size be ten times the largest number of formative indicators used to measure one construct. Even with this rule of thumb, researchers are cautioned to always consider the complexity of the model being used and the characteristics of the data in deriving the sample size.

The target population used to generate the sample size was based on the 2010 population census. Even though the GSS projected population growth of about 18 percent from 2010 to 2020, the change was expected not to affect the target population significantly. In addition, using the Krejcie and Morgan (1970) sample size table, the sample size generated was the same for both the 2010 population and the adjusted 2020 population figures.

Table 6: Target Population Based on the 2010 Population Census

Employment Sector	ACCRA		KEEA		TAM	
	Number	Percent	Number	Percent	Number	Percent
Public (Government)	60,483	30.08	3,779	56.56	2,051	65.05
Private Formal	130,302	64.80	2,519	37.70	1,025	32.51
Semi-Public/Parastatal	1,231	0.61	46	0.69	51	1.62
NGOs	7,749	3.85	337	5.04	26	0.82
Other International Organisations	1,319	0.66	0	-	0	-
Total	201,084	100	6,681	100	3,153	100

Source: Ghana Statistical Service, (2014)

A target population of 210,918 was derived based on the GSS population data. From the Krejcie and Morgan (1970) sample size table, a sample size of 384 was generated for the target population. Generally, the response rate for surveys approximate 60%-65% (Draugalis, Coons & Plaza, 2008: Sheeban, 2001), especially when it is being administered through emails and Whatsapp platforms due to the COVID 19 pandemic. Therefore, the sample size of 384 respondents was adjusted for an average response rate of 62.5%, resulting in a total sample size of 614 respondents. The sample size was apportioned based on two classifications being public (government) and private formal organisations. The details of the sample size for the various categories of the formal sector are shown in Table 7

Table 7: Proportional Sample Distribution Based on the Sample Size

Employment Sector	Total	Accra	KEEA	Twifo Atti-Mokwa
Sample Size	614			
Proportional Sample Sizes (50:30:20)	614	307	184	123
Public (Government)	197	94	113	82
Private Formal	417	213	71	41

Source: Ghana Statistical Service, (2014)

Data Collection Instrument

The study used self-administered questionnaires to gather primary data from the respondents. Saunders, Lewis and Thornhill (2016) recommend using questionnaires for explanatory study because it helps to examine and explain relationships. Questionnaires help the researcher to measure many variables, test multiple hypotheses and draw inferences from questions about past behaviour, experiences and individualities (Neuman, 2007). It also helps in collecting factual data from large groups of people within a geographically dispersed area in a more economical manner (Ampah et al., 2017).

The questionnaire for the study (Appendix A) is categorized into nine subheadings with the main headings being: personal information, Financial Self-Efficacy, Financial Attitude, Locus of Control, Descriptive Norm, Financial Knowledge, risk preference, Financial Behaviour Intention and Actual Financial Behaviour. The questionnaire covers all aspects of the research objectives. Questions are mainly closed-ended, with most of them being measured using the five-point Likert scale with one as the starting point.

In all, Eighty-four (84) questions were used in the survey. Seventeen (17) questions on Actual Financial Behaviour, eight questions on Financial Attitude and thirteen (13) True/false and multiple-choice questions on Actual Financial Knowledge was adapted from the OECD/INFE database on financial literacy. Also, eight questions on Financial Self-Efficacy using the Financial Self-Efficacy scale developed by Lown (2011) and tested by Farrell, Fry, and Risse (2016), five questions on Locus of Control, four questions on Descriptive Norm, six questions on behavioural intentions and two questions on Income was used based on empirical reviews done (Arifin & Anastasia, 2017; Cobb-clark et al., 2013; Ismail, Faique, Bakri, Zain, et al., 2017; Hanna Lim et al., 2014; Rasheed, Muhammad Haroon; Rafique, Amir; Zahid, Tayyaba; Akhtar, 2018). The remaining questions will be on respondents' demographics covering their age, income level, work location and general education level.

Operationalization of Variables

The variables used in the study have been operationalized in the table below. The variables include Budgeting, Savings, financial products held by people, Financial Self-Capacity, Financial Attitude, Locus of Control, Descriptive Norms, Perceived Financial Knowledge, Actual Financial Knowledge, Income level, Family Support and Age. Table 8 indicates each variable's role in the framework, their operational definitions, how each variable is measured, and the questions used in measuring them.

Data Collection Procedures

The data for the study was primary data collected through a self-administered questionnaire from workers within the formal sector. The focus of the data collection was from formal sector workers within the Accra Metropolis, Komenda Edina Eguafo Abriem Municipality and the Twifo Ati-Mokwa District Assembly. The collection process began with a meeting between the human resource officer of the selected organisations and the researcher seeking approval to administer the questionnaires. After approval was given, representatives were selected within the organization under study to distribute questionnaires and collect completed questionnaires as well.

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Table 8: Measurement and Operationalisation of Variables

Variable	Nature	Operationalisation	Measurement	Question Number
Financial Planning & Budgeting behaviour	Dependent Variable	How often people plan and prepare monthly budget and adhere to it	Likert Scale	Q68-72
Savings	Dependent Variable	How often people save monthly	Likert Scale	Q76-80,84
Perceived Financial Knowledge	Independent Variable	Subjective financial knowledge levels	Likert Scale	Q40-43
Actual Financial knowledge	Independent Variable	Financial knowledge assessed objectively	Multiple choice	Q55-67
Financial Self Capacity	Dependent/Independent Variable	The confidence in one's financial skills and abilities	Likert Scale	Q15-22
Financial Attitude	Dependent/Independent Variable	Individual tendencies towards planning budgeting and savings behaviour	Likert Scale	Q23-30
Locus of Control	Independent Variable	Belief that one controls the happenings in life	Likert Scale	Q31-35
Descriptive Norm	Independent Variable	Social Influence on Behaviour	Likert Scale	Q36-39
Finance Behaviour Intention	Dependent/Independent Variable	Respondents Intention toward finance behaviours	Likert Scale	Q49-54
Income level	Moderating variable	Respondent net salary	below GH₵500-more than GH₵3,000	Q9-10
Family Support	Moderating variable	Respondent receives additional financial support from family	yes/no	Q12-13
Age	Moderating variable	The age of respondent	Years	Q5

Source: Field Survey (2021)

The questionnaire administration began on 3rd March 2020 and ended on 15th July 2020. Ghana recorded its first case of COVID-19 on 12th March 2020 in Accra. Later, the pandemic started spreading across the country, making it difficult to continue with the planned procedure of questionnaire administration. The questionnaires were quickly uploaded onto the google forms platform and sent to staff of the selected organisations via WhatsApp and email. Most of these workers were on lockdown, especially those in Accra.

Respondents working with the Ghana Oil companies at various study areas were attended to by our research assistants as they continued to work amidst the COVID-19 pandemic.

Reliability and Validity

Reliability refers to whether the data collection techniques and analytical procedures will produce consistent results if the study is replicated. Threats to reliability in research can emanate from researcher/respondent biases and errors. To test for reliability, the Cronbach alpha is mainly recommended to test the instrument's internal consistency. However, prior studies have shown that Cronbach's alpha provides a conservative measurement in PLS-SEM. The use of composite reliability is therefore recommended by some researchers (Hair et al., 2015). The minimum acceptable level of the internal consistency coefficient is 0.4, but the preferred coefficient is 0.7 or higher. The researcher ensured that all the question items used met the minimum value for internal consistency and the Cronbach alpha requirement.

Validity

The validity construct is concerned with the extent to which the research instrument measures the issues it was purposed to measure. It also evaluates how accurate the data obtained in the study represent the variable or construct being measured. To ensure construct validity, the study relied on an existing theoretical framework, which has been tested over the years. Also, experts in personal finance were made to review the instrument to ensure content validity. Furthermore, the questions were pre-tested to remove ambiguity and ensure that the instrument achieved its purpose.

Validity in PLS-SEM is measured using the convergent and discriminant validity test. The benchmark for the convergent validity is 0.5 or higher using the Average Variance Extracted (AVE) of the latent variable, whiles the discriminant validity requires the square root of the AVE to be greater than the correlation values among the latent variables (Adam, 2018). The researcher confirmed that all the constructs met these requirements before further analyses were carried out.

Data Processing and Analyses

Non-parametric test for differences (Mann Whitney U-test, Wilcoxon test, Chi-Square etc.) was conducted to explore the differences in the variables among the respondents. Structural Equation Model (SEM) based on Partial Least Squares (PLS) was used in analysing the data. PLS-SEM allows multiple dependent and independent variables to be analysed using one model. It simultaneously estimates all the path coefficients, unlike regression that has to be done one at a time. PLS-SEM also tests for statistical conclusion validity, which helps the researcher to measure the reasonableness of the conclusion drawn from the data (Gefen, 2000; Schumacker & Lomax, 2010).

PLS offers several merits, including the ability to use a small sample size in carrying out path modelling. The statistical tool requires a sample size depending primarily on the maximum number of arrows pointing to a latent variable even though the significance level, statistical level and the minimum coefficient of determination are also important factors to consider. With a small sample size, PLS is able to achieve high statistical power compared to other statistical tools (Hair et al., 2014).

Secondly, the ability to use non-normal data distribution is a great relief to most researchers in the social sciences because most data collected fail to follow a multivariate normal distribution. Most analytical tools require the use of normal data for parametric analysis, which poses a challenge to many research conducted within the social sciences. However, highly skewed data can still reduce the statistical power of the analysis (Hair, Risher, Sarstedt, & Ringle, 2019).

PLS-SEM specifications

To perform Partial Least Squared-Structural Equation Modelling (PLS-SEM), there are some set of criteria that has to be met. First of all, the study's sample size and common method bias were assessed as statistically required (Siemsen, Roth, & Oliveira, 2010). Also, the instrument used had to pass the validity and reliability test. Constructs are either measured using the formative or reflective models (Hair, Hult, Ringle, & Sarstedt, 2016). The reflective measure means that the construct influences the indicators or items of a construct; hence they ought to have high correlations. Reflective indicators can be viewed as a representative sample of all the possible items available within the conceptual domain of the construct (Nunnally & Bernstein, 1994). To check for the appropriateness of the construct measures, indicator reliability, internal consistency reliability, convergent validity, and discriminant validity of each model was established. Hair, et al (2016) said that reflective measurement models are assessed based on their internal consistency reliability and validity.

Finally, after satisfying the requirement of the construct measures, Hair et al. (2016) suggest that the structural model could then be assessed for Multicollinearity, path coefficients and significance in the structural model, level of R^2, as well as effect sizes and predictive relevance.

Common method bias (CMB) specification

This study employed the full collinearity test to assess the presence of common method bias first. Second, the single Unmeasured Latent Method Factor Technique was also implemented in the PLS model to assess the presence of common method bias and partial out its effect in the study. According to Siemsen, Roth, and Oliveira (2010), common method bias is the common variance between measures due to either the questionnaires used for data collection or the use of the same respondents. A study must be free from the effects of CMB to provide valid findings. The presence of CMB in a study will either inflate or attenuate the regression estimates. This can either cause a type 1 error or type 2 error (Siemsen et al., 2010).

To certify that a study is free from bias, Harman's single factor test is normally used. However, the use of this approach has been argued against. Kock (2015) established that Harman's single factor test is appropriate for exploratory factor analysis and will not be able to vouch for confirmatory factor analysis. Aguirre-Urreta and Hu (2019) also went further to say that its use can give false assurance. Therefore, Kock (2015) proposed that for PLS-SEM algorithms, the full collinearity test should be used to assess the presence of common method bias in a study. He further explains that a study is free from CMB if all VIFs resulting from a full collinearity test are equal to or lower than 3.3. Other researchers also recommend the use of other methods like the Unmeasured Latent Method Factor Technique (Rodríguez-Ardura1 & Meseguer-Artola, 2020). The full collinearity test was done by creating various models where each construct in the study served as an endogenous construct while the others served as exogenous constructs. The inner VIFs for each of the models were extracted and compared to the criterion. The results in Table 9 show that this study is free from common method bias as none of the VIFs exceeds the threshold of 3.3. the results of the Unmeasured Latent Method Factor Technique also confirms that common method bias does not exist (details in Appendix B)

Table 9: Full Collinearity VIFs

	AFB	AFK	DN	FA	FBI	FSE	LoC	PFK
AFB		1.457	1.461	1.504	1.311	1.295	1.500	1.490
AFK	1.186		1.209	1.186	1.198	1.183	1.202	1.167
DN	1.100	1.052		1.129	1.115	1.127	1.083	1.074
FA	1.341	1.511	1.527		1.260	1.161	1.265	1.374
FBI	1.454	1.704	1.615	1.624		1.421	1.651	1.677
FSE	1.153	1.331	1.464	1.138	1.158		1.131	1.137
LoC	1.368	1.382	1.101	1.263	1.398	1.216		1.363
PFK	1.300	1.270	1.188	1.369	1.312	1.282	1.294	

Source: Field Survey (2021)

Indicator reliability specification

Hair, Risher, Sarstedt, and Ringle (2019), explain that Indicator Reliability is the extent to which a latent construct explains the variations in the indicators of that latent construct. Wong (2013) attested to the relevance of establishing indicator reliability of a latent construct through the assessment of its outer loadings when examining a structural model. It is expected that the latent construct should explain at least 50% of the variations in the indicators. This means that outer loading higher than 0.708 is desired. However, Hulland (1999) and Hair et al. (2016) suggests that an outer loading of 0.4 can be acceptable. Consequently, this study's preferred outer loading was placed at 0.7, whereas outer loadings of 0.4 were considered and maintained in the models as long as they did not affect the quality of other estimates.

Convergent validity specification

To evaluate the convergent validity of reflective constructs, researchers consider the average variance extracted (AVE) (Hair et al. 2016). The AVE is explained as the extent to which the latent variables converge to explain the variance in their respective indicators (Hair et al., 2019). It is computed by finding the average of squared outer loadings of each latent construct's indictors. An AVE of less than 0.5 indicates insufficient commonality (Hulland, 1999). Hence, convergent validity is assured when each construct's average variance extracted (AVE) is 0.50 or higher. However, it is imperative to note that the AVE will not be appropriate to assess convergent validity in a single construct as its AVE is fixed at 1.00 (Hair et al. 2016).

Internal consistency reliability specification

When assessing internal consistency reliability, researchers using PLS-SEM need to report on Cronbach alpha and composite reliability. Reporting on both statistics helps complement each other's weaknesses. According to Hair et al. (2016), it is reasonable to consider and report both criteria. When analysing and assessing internal consistency reliability, the true reliability usually lies between Cronbach's alpha (representing the lower bound) and the composite reliability (representing the upper bound). According to Hair et al. (2019) and Wong (2013), the rho_A falls between the Cronbach's alpha and the composite reliability; therefore, the reliability of each construct used in the model was assessed by observing the rho_A. Internal Consistency Reliability is present when the rho_A, Cronbach's alpha (CA), and the composite reliability (CR) have values equal to 0.7 or higher.

Discriminant validity specification

Discriminant validity is the extent to which indicators of a construct are truly distinct from other constructs' indicators by empirical standards. Thus, establishing discriminant validity implies that indicators of a construct are unique and capture phenomenon not represented by other constructs in the model (Hair et al., 2016). The cross-loadings, The Fornell-Larcker criterion, and the Heterotrait-Monotrait ratio (HTMT) can all be used to assess discriminant validity. The latter has been proven to be the most appropriate (Hair et al., 2016). Recent research that critically examined the performance of cross-loadings and the Fornell-Larcker criterion for discriminant validity assessment has found that neither approach reliably detects discriminant validity issues (Henseler, Ringle, & Sinkovics, 2015). Thus, the HTMT criterion has been widely recommended (Hair et al., 2019; Henseler et al., 2015). An HTMT value above 0.90 suggests a lack of discriminant validity. When the constructs in the path model are conceptually more distinct, a lower and thus more conservative threshold value of 0.85 seems warranted (Henseler et al., 2015). Also, when the bootstrapping confidence interval (CI) is lesser than 0.90, the HTMT ratios are statistically significant.

Multicollinearity specification

According to Hair et al. (2019), before assessing the structural relationship, multicollinearity must be examined to make sure it does not make the regression results bias. Multicollinearity can exist between two variables or between one variable and a linear combination of the others (Alin, 2010). It is a situation where the predictor variables are highly correlated. This will mean that the predictor variables or constructs measure the same phenomenon, therefore, it will be unfair to put them together to explain variations in the endogenous construct. Alin (2010) went further to express that presence of multicollinearity harms hypothesis testing, estimation, and forecasting. It is, therefore, imperative to report on the collinearity of each model in the study to produce reliable and valid coefficients for estimation and forecasting. Some research works (Becker, Ringle, Sarstedt, & Völckner, 2015; Hair et al., 2016) propose that VIF values above 5 indicate a high probability of multicollinearity problems among the exogenous constructs of a study, but multicollinearity problems can also occur even at lower VIF values of 3-5 hence it will be prudent to place the VIF values required to 3 and lower.

Control Variables

The analysis further controlled for the possible effect of locational, educational and sex differences of respondents. Intuitively, respondents working in the metropolis, municipal and district were expected to have different financial behaviour regarding financial planning/budgeting and savings due to environmental differences. Even though rigorous tests cleared any differences in financial knowledge among sex and localities of respondents, it was further envisaged that there could be a possible influence of these factors on Actual financial behaviour. Additionally, educational and sex differences were anticipated to influence financial behaviour and hence can affect the findings observed initially. However, the results after controlling for locational, educational and sex were the same.

Table 10: Control Variables

Control Variables	AFB	SB	PBB	FA	FSE	FBI
Sex	.013	.052	-.008	.076	.058	.026
Location	-.009	.011	-.018	.009	.007	-.061
Education	-.042	-.008	-.048	.051	.251**	.0448

* = P<.05; **=p<.01

Formal sector workers are mostly on transfer to their working location, and such very few people hail from the localities in which they work. This may be accounting for the observations recorded since those working in the District or Municipal may have worked in other Metropolis before their transfer. Additionally, all respondents have had some level of education and thus can be classified as educated people. Therefore, it can be concluded that in a homogenous group, educational and sex differences do not exist among formal sector workers in terms of their financial behaviour concerning financial planning/budgeting and savings behaviour.

Ethical issues

Consent of respondents is one of the critical issues to be dealt with as data are collected from respondents. First, approval and ethical clearance were sought from the Institutional Review Board of the University of Cape Coast. Further, the questionnaire included a cover letter seeking the respondents' consent and the organization they work. Confidentiality of data is of priority in this study as the respondents were required to give personal information about their financial behaviours. To ensure confidentiality, respondents are required to remain anonymous. Respondents are not mandated to provide their names on the questionnaire. The Researcher assured respondents that the information collected would be used solely for the purpose of the study and that no information collected from them would be used for other purposes without their prior knowledge and consent. Lastly, respondents were informed that participation is voluntary and that no monetary compensation was made available.

Chapter Summary

Explanatory research design was employed with quantitative analysis in carrying out the objectives of the study of examining how Financial Knowledge, Financial Attitude, Financial Self-Efficacy, Locus of Control, Descriptive Norm and some demographic variables like Income, Age and Family Support influence financial behaviour of formal sector workers in Ghana. The data source used in the study was primary which was obtained through questionnaire and analyzed using PLS Structured Equation Model. The study area was targeted at formal sector workers within the Accra, KEEA and Twi Ati-Mokwa District Assemblies.

The possible limitations of the method used in carrying out the study objectives may include the selection of only three districts out of two regions in Ghana as the study area. This may affect the scope of the study. That notwithstanding, the researcher believes that the results reflect the general behaviour of workers across the country due to similar characteristics exhibited by formal sector workers. As such, the findings of the study can be generalized for formal sector workers in the country.

Secondly, respondents are required to self-assess their Financial Knowledge and other values/beliefs of interest in this study. There are differences in measuring the Perceived and Actual Financial Knowledge of persons. Most significantly, the Perceived Financial Knowledge of persons is likely to be confounded with over-or-under confidence on the part of respondents, especially when questions are related to financial issues and, more specifically, income (Jappelli, 2010). However, the questionnaire was designed with multiple questions requiring the same information but structured in different forms to detect such possibilities.

VERITAS LUMEN NOBIS

CHAPTER FOUR

BACKGROUND CHARACTERISTICS OF RESPONDENTS

Introduction

Chapter four presents the background characteristics and the robustness of the data. The chapter starts with the response rate, demographics of the respondents, and the descriptive analyses of the major variables of the study. Further analyses were conducted to show whether differences exist between the public and private workers in terms of the major variables of the study. Additionally, locational and gender differences in Financial Knowledge, attitude and self-efficacy were discussed. The chapter concludes with a summary of key findings for further discussions.

Response Rate

Out of 620 total questionnaires distributed to both public and private formal sector workers within the sample area, 495 completed questionnaires were received for the analysis. This represents a 79.8 percent response rate. However, missing responses on some questions reduced the total questionnaires used for the analysis to 406. The usable responses were above the representative sample of 384. Comparatively, the response rate of this study also falls within the average response rates for most personal finance surveys conducted (Bhushan, 2014; Nguyen et al., 2017; Zsótér & Németh, 2017).

Background Characteristics

This section presents the general findings from the data concerning the demography of respondents. Using frequencies and percentages, the respondents' demographics and data are presented in terms of work sector, educational qualifications, professions, years of experience, age, gender, disposable income, sources of income, place of work, family size, Family Support and financial training. Some of the demographics are used as control variables and moderators for further analysis.

Employment sector

The formal sector workers considered for this study were either from the formal public sector or the formal private sector. Table 11 shows that more than half of the respondents (72.7%) were from the public sector. This is not surprising as the public sector is the major employer within the formal sector in most districts in Ghana. The government employs more people within the formal sector in the Twifo Ati-Mokwa District and the Komenda Edina Eguafo Abriem (KEEA) Municipality compared to Accra Metropolis. Responses from private formal workers from the Accra Metropolis was expected to balance the public-private ratio. However, the prevalence of the COVID-19 pandemic in the Accra Metropolis, with its resultant lockdown, affected the response rate from the study area. Accra was expected to bring on board more responses from the private sector based on the sample. That notwithstanding, a ratio of 295:111 is good for the analysis.

Table 11: Work Sector of Respondents

			Work location of respondents			
			KEEA	TAM	Accra	Total
Respondent's working sector	Public	Frequency	62	69	164	295
		% within Work location of respondents	64.6%	86.3%	71.3%	72.7%
	Private	Frequency	34	11	66	111
		% within Work location of respondents	35.4%	13.8%	28.7%	27.3%
Total		Frequency	96	80	230	406
		% within Work location of respondents	100.0%	100.0%	100.0%	100.0%

Source: Field Survey (2021)

Educational qualification

The educational qualification of respondents is displayed in Table 12. The table shows that every respondent had some level of education. The highest percentage of the respondent, 36.5%, are degree holders plus an additional 26.6% of respondents in possession of a second degree and above. The results confirm the assertion that without some level of education, it is becoming extremely difficult to secure employment within the formal sectors of the economy. Thus, the working population who may not have the requisite qualifications work within the informal sectors.

Table 12: Educational Qualification

Educational Qualification	Frequencies	Percentage	Cumulative Percentage
Primary School	8	2.0	2.0
JHS/SHS	38	9.4	11.4
Diploma	65	16.0	27.4
Degree	148	36.5	63.9
Master Degree and above	108	26.6	90.5
Professional	39	9.5	100
Total	**406**	**100**	

Source: Field Survey (2021)

Staff category

The staff category of respondents is pictorially presented in Figure 2. In every organization, the junior and senior staff constitute the majority. The distribution of staff category of respondents represents a normal staff structure of organisations.

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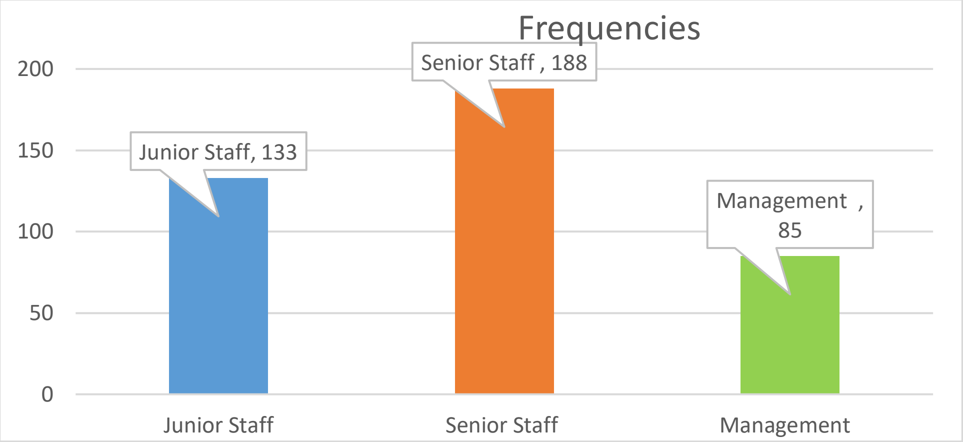

Figure 2: Staff Category of Respondents
Source: Field Work, Sam (2021)

Years of work experience

The number of years of work experience of respondents is presented in Table 13. Those who have worked up to 5 years constitute the majority of the sample representing 47.3 percent. The second-largest group are those who have worked between 6 to 10years making up 31.5 percent of the total respondents. Respondents with above 10years of working experience are 21.2 percent. It shows from Table 13 that 52.7 percent of the respondents have worked for over five years. The expectation was that workers may have developed some behaviour pattern over the years regarding financial planning/budgeting and savings.

Table 13: Years of Work Experience

Work Experience	Frequencies	Percentage	Cumulative Percentage
Up to 5yrs	192	47.3	47.3
6yrs to 10yrs	128	31.5	78.8
Above 10yrs	86	21.2	100
Total	406	100	

Source: Field Survey (2021)

Age of respondents

The group of respondents with the highest frequency (27.8%), according to Table 14 are workers within the ages of, 31-35years. Respondents within the age group 26-30years follow with 25.6 percent. 22.4 percent of the respondents also fall within the 36-40 years age bracket. Thus, respondents Up to 40yrs constitute a total of 81.7 percent. The observation implies that the study dealt with a very youthful population, and therefore, findings can be generalized for the young adults working within the formal sector.

Table 14: Age of Respondents

Age of Respondents	Frequencies	Percentage	Cumulative Percentage
Up to 25	24	5.9	5.9
26yrs to 30yrs	104	25.6	31.5
31yrs to 35yrs	113	27.8	59.3
36yrs to 40yrs	91	22.4	81.7
41yrs to 45yrs	40	9.9	91.6
46yrs 50yrs	18	4.5	96.1
Above 50yrs	16	3.9	100
Total	406	100	

Source: Field Survey (2021)

Gender

Males (255) dominated the survey with 62.6 percent of the respondents compared with females (151) being 37.4 percentage (*Figure **3***). The large proportion of male respondents reflect the gender gap that exists in the workplaces in the formal sector. Even though the female dominates Ghana's population, only a handful are able to travel the academic ladder to find jobs within the formal sectors of the economy.

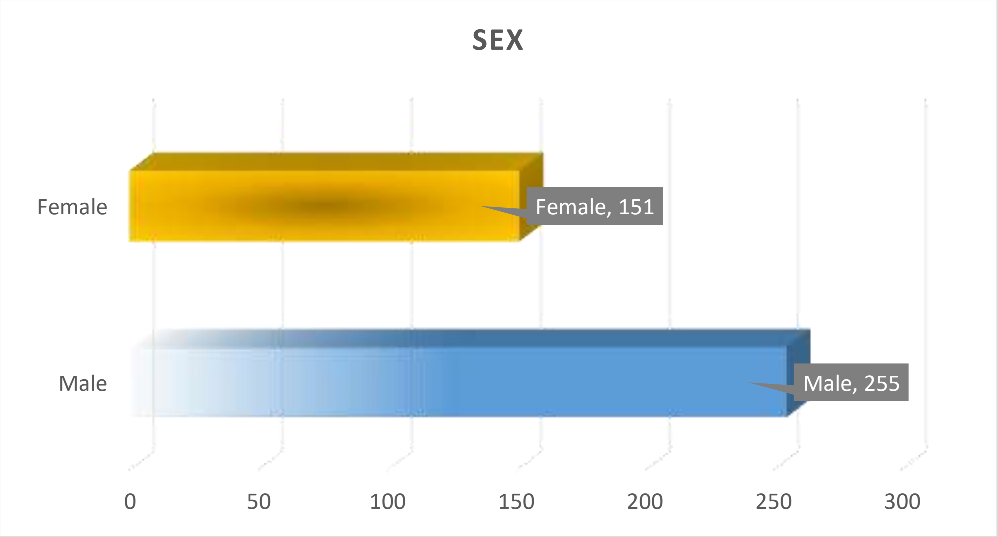

Figure 3: Sex of Respondents
Source: Field Work, Sam (2021)

Disposable income

Disposable income was measured as the total income less statutory deductions. Statutory deductions include but are not limited to tax, social security contributions and provident funds. *Figure **4*** indicate that respondents earning between GH₵ 1,000-GH₵ 2,000 make up the majority with 32.0 percent. Subsequent to this are respondents earning above GH₵ 3,000, representing 22.7 percent, followed by 19.0 percent of respondents earning from GH₵2,001-GH₵3,000. The GLSS Report issued by the Ghana Statistical Service, 2019 also indicates average monthly earnings for workers to be GH₵972.

The results also indicate that 58.4 percent of workers who participated in the survey earn a monthly salary of GH₵2,000 and below. Included in this total are 8.4 percent of respondents who earn below GH₵500. The data also reflect that some formal sector workers live below the poverty line of GH₵ 10.89 ($1.9) a day. The conversion is done using the Bank of Ghana Interbank Fx rate of Gh¢5.73 to $1.00 on May 21, 2021. (NB: Salary levels for 2020 remained the same for 2021 until June, 2021 when the government announced a 4 percent upward review effective January 1 2021). Given an average household size of 3.8 (approximately 4 persons) as reported by the GLSS7 report (GSS, 2019), a household requires at least Gh¢1,349.98 ($235.6) for survival on basic needs. Based on the analysis, more than 26.4 percent of our sample are poor because they earn below Gh¢1,000. This can affect their financial behaviour, especially savings behaviour, because what they earn as income can barely take care of their basic needs. However, it must be noted that the analysis was done using one person's income from the household, which may not always be the case.

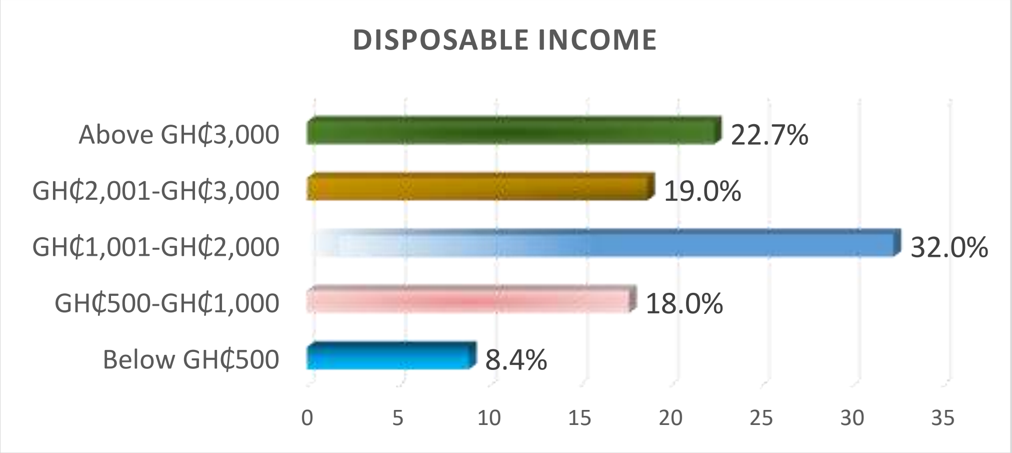

Figure 4: Disposable Income
Source: Field Work, Sam (2021)

Family size

The family size included the respondent and any other close family member. From Table 15, formal sector workers with 3-4 family sizes make up the majority (40.9%). This is followed by workers with 5-6 (28.8%), up to 2 family size (19.0%) and above 6 family size (11.3%). Benchmarking the data with the Ghana Living Standard Survey Report (2019)

Table 15: Family Size

Family Size	Frequencies	Percentage	Cumulative Percentage
Up to 2	77	19.0	19.0
3-4	166	40.9	59.1
5-6	117	28.8	88.7
Above 6	46	11.3	100
Total	**406**	**100**	

Source: Field Survey (2021)

Family support

Family Support was to identify respondents who could count on reliable financial support in times of financial difficulty. The results from Table 16 show that 47.3 percent of formal sector workers involved in this survey have the assurance of financial support in challenging times. Having the assurance of financial support is expected to negatively influence workers' financial behaviour, especially towards savings. However, those without such assurance constitute the majority (52.7%) and therefore, it is expected that these workers will take the necessary steps through savings to create financial stability for their households. Even though some workers have the assurance of financial security, it is very much expected that these group of workers will rather put in place best financial practices through budgeting and savings because their parents, spouses and family have been doing this over the years resulting in the financial stability that they can take assurance from. The influence to also carry out best practices because people around are doing the same constitutes the Descriptive Norm.

Generally, the Ghanaian culture is gradually embracing the individualistic society where people are concerned with their nuclear families more than the extended family. This is reflected in the sources of financial support that respondents envisage attaining when they are in financial difficulty. Out of the 192 respondents who indicated positive assurance for financial support, Table 16 reported that 143 respondents have their source of financial assurance from their spouses or parent who generally are considered as close relatives and forms part of the nuclear family system compared to 39 workers who claim to have an extended family member as a source of financial assurance.

Table 16a: Family Support

Family Support	Frequencies	Percentage
Yes	192	47.3
No	214	52.7
Total	406	100

Source: Field Survey (2021)

Table 16b: Family Support- Sources

Family Support	Frequencies	Percentage	Cumulative Percentage
Spouse	86	44.8	44.8
Parent	67	34.9	79.7
Extended Family	39	20.3	100
Total	192	100	

Source: Field Survey (2021)

Financial training

Financial training sought to find out those respondents who have had the opportunity to participate in a financial training programme through their programme of study, workshops, training and other forms of personal financial education. The results indicate that less than half (49.3%) of the respondents have had some form of personal financial education. Even though the sample for the study have indicated a higher level of education from Table 12, the results from Table 17 confirms that inadequate attention is being given to personal finance in our educational curriculum both at the secondary schools and the tertiary level.

Financial training is expected to boost good financial behaviour; however, findings have been contradictory so far. With a meta-analysis of 158 papers, (Fernandes et al., 2014) findings indicated that financial education explains only 0.1 percent of variations in financial behaviour. A similar study that employed 188 papers found financial education to impact savings and record-keeping behaviour but not loan default behaviour (Miller, Reichelstein, Salas, & Zia, 2015) Menkhoff & Kaiser (2017), in their recent study, reported of a significant impact financial education has on financial behaviour. However, the type of financial education is important as the traditional classroom setting does not yield the desired result as expected (Bhutoria & Vignoles, 2018).

A rule of thumb (RoT) style of informal education using experienced based-techniques in problem-solving, learning, and logical thinking seems to produce some results, especially when delivered closer in time to the desired behaviour change (Bhutoria & Vignoles, 2018; Menkhoff & Kaiser, 2017).

Table 17: Financial Training

Financial Training	Frequencies	Percentage
Yes	200	49.3
No	206	50.9
Total	406	100

Source: Field Survey (2021)

Descriptive statistics of major variables of the study

A rigorous analysis was performed to have an in-depth understanding of the data provided on the major constructs of the study and foster further analysis and discussions. The analysis included normality tests, Mann Whitney U-test, Wilcoxon test, Chi-Square etc, based on the demographics of the respondents.

Normality in data distribution of constructs

Kolmogorov-Smirnov and Shapiro-Wilk tests were conducted to assess the normality of the distributions of Actual Financial Knowledge, Financial Attitude, Financial Self-Efficacy, Locus of Control, Financial Behaviour Intention, and Actual Financial Behaviour. From Table 18, it is only Actual Financial Behaviour that was identified to be normally distributed according to the Shapiro-Wilk statistic. All other constructs were found not to be normally distributed, hence the need to apply non-parametric inferential tests.

Table 18: Test of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	T Stat	Df	Sig.	T Stat	df	Sig.
Actual Financial Knowledge	.126	406	.00	.966	406	.00
Financial Attitude	.084	406	.00	.985	406	.00
Financial Self-Efficacy	.089	406	.00	.967	406	.00
Locus of Control	.076	406	.00	.981	406	.00
Financial Behaviour Intention	.072	406	.00	.972	406	.00
Actual Financial Behaviour	.061	406	.001	.994	406	.112

Source: Field Survey (2021)

Financial knowledge

The financial Knowledge of participants was measured in two ways, Perceived and Actual Financial Knowledge. Perceived knowledge is the self-assessed knowledge level of a respondent, whiles the Actual Financial Knowledge was assessed based on the responses to some objective test questions. The study further analysed Actual Financial Knowledge level in terms of working sector and geographical locations.

Perceived knowledge

Participants were asked to measure their knowledge level subjectively by stating how well they understood certain financial terms and their impact on the individual's personal finances. A 5points-Likert Scale from "slightly true (ST)"- 1 to "extremely true (ET)"- 5 were used. Results from

Table 19 indicate that about 94.5 percent of respondents selected "true" to "extremely true" for the question on budgeting and the benefits it offers to the individual. This means that respondents understand very well the concept of budgeting. With 85.2 percent, respondents' knowledge on "inflation and its impact on purchasing power" ranks second as the most perceived knowledgeable area.

It was followed by the difference in classes of asset and their liquidity (74.9%) and finally, the question on interest rate and how it is calculated (74.1%). More than 50 percent of the respondents exhibited that their perceived knowledge of the financial terms is high in all cases.

Table 19 report the mean responses with the average mean (mean of means) for the four questions. The result from Table 19 indicates that respondents ranked their knowledge very high in budgeting and the benefits its offers to the individual (Mean=4.14), with their knowledge in the different classes of assets and their liquidity being the least ranked (Mean=3.37).

The average mean of 3.66 indicates that respondents believe they have a good understanding of the financial terms and their impact on their finances. Whether respondents Perceived knowledge is a reality or not, the actual knowledge test reported in subsequent discussions is expected to confirm. That notwithstanding, Nguyen et al. (2017) point out that Perceived and Actual Financial Knowledge have separate effects on individual financial behaviour.

Table 19: Responses to Perceived Financial Knowledge scale

Survey Item	ST	MT	T	HT	ET	Mean	Std. D
I understand budgeting and the benefits it offers to the individual	2.1	3.4	21.9	24.1	48.5	4.14	1.004
I have good knowledge about inflation and its impact on our purchasing power	5.9	8.9	22.7	31.3	31.2	3.74	1.164
I know the differences in the classes of assets and their liquidity	10.8	14.3	27.6	21.4	25.9	3.37	1.293
I understand how interest rate are calculated	16	9.9	23.2	21.2	29.7	3.39	1.408
Mean of Means						**3.66**	

ST-slightly true, MT-moderately true, T-true, HT-highly true, ET-extremely true
Source: Field Work, Sam (2021)

Actual financial knowledge

The Actual Financial Knowledge construct measures respondents' objective knowledge on personal finance issues. Respondents answered thirteen (13) multiple-choice questions on planning and budgeting, savings, interest rate and inflation. Table 20 displays the scores and their frequencies. From Table 20, only thirteen (13) respondents had all questions answered correctly even though fifty-nine (59) respondents indicated under the Perceived Financial Knowledge assessment that they extremely understand all the personal finance areas under study.

It appears some people are either over or under-confident. That is the High or low self-assessment of one's competence in related Financial Knowledge (Lee & Kim, 2020). Sixty-three (63) respondents scored ten out of the thirteen (13) questions, with one person failing to answer any one question correctly. The best-answered questions were 66 (budgeting) followed by 64 (inflation) and 61 (interest rate calculation) with 304, 300 and 265 correct responses, respectively, out of the total 406 responses.

Fifty percent of thirteen is six and a half, approximately seven. Therefore, out of the thirteen questions, those who scored below seven are considered to have insufficient knowledge. Scoring seven up to ten questions put one on the average knowledge scale, and an above ten score indicates high knowledge in personal finance. The result shows that 31.5 percent, 50 percent and 18.5 percent of respondents have insufficient, average and high financial knowledge, respectively.

Table 20: Actual Financial Knowledge Score of Respondents

Score	Frequency	Percent
0	1	.2
1	8	2.0
2	4	1.0
3	18	4.4
4	32	7.9
5	31	7.6
6	34	8.4
7	44	10.8
8	43	10.6
9	53	13.1
10	63	15.5
11	41	10.1
12	21	5.2
13	13	3.2
Total	406	100.0

Source: Field Survey (2021)

Actual Financial knowledge among workers within the Public and Private Sectors

A robust approach was employed to assess the difference in Financial Knowledge between the public and private sector workers. According to Pallant (2005), a Mann-Whitney U test is appropriate for non-parametric data. The mean rank results suggest that private-sector workers possess higher Actual Financial Knowledge (Mean Rank: 204.88) than the public sector workers (Mean Rank: 202.98). However, this observation was not supported by the Mann-Whitney U test. The results show that, there is no statistically significant difference in public (median = 8) and private workers (median = 9) Actual Financial Knowledge, (U = 1.6219, p = .884, 2 tailed). This means that both public and private sector workers have a similar level of Actual Financial Knowledge. This observation could be explained by the fact that both the private and public formal sectors employ knowledgeable personnel. The details of the results are presented in Appendix B

Actual Financial knowledge among workers within different localities

The study sought further to examine Actual Financial Knowledge differences in workers across different localities, including Accra Metropolitan, KEEA Municipal and Twifo Ati-Mokwa District Assemblies. Pallant (2005) indicates that an independent sample t-test or Kruskal-Wallis test is appropriate since the data is not normally distributed. The mean rank results suggest that Accra workers possess higher Actual Financial Knowledge (Mean Rank: 213.46) than the workers in other locations participating in the study. However, when the observation was subjected to a more rigorous statistical test, the results reflected no statistically significant difference in the varying areas that they work. Actual Financial Knowledge, (Chi = 4.675, p = .097) are the similar. Hence, the study concludes that formal sector workers generally have a similar level of Actual Financial Knowledge. The details of the results are presented (see Appendix B).

Financial attitude

The Financial Attitude construct measures the beliefs of respondents towards certain financial behaviours. Financial Attitudes are developed over a period based on past experiences and anticipated future occurrences. It can be classified as a positive or negative attitude towards an individual's finances.

Eight questions were used to measure the construct using Likert-scale questions on a scale of “slightly agree (SA)”-1 to “extremely agree (EA)”-5. The first two questions were stated negatively, so the responses were graded using reverse codes “slightly agree”-5 to “extremely agree”-1.

Generally, respondents had a positive Financial Attitude towards personal finance behaviours under study. “To care for the future is essential for me” received the highest affirmation from respondents (89.6%), followed by “Before I buy, something I carefully consider whether I can afford it” (89.4%). The question on “I find it hard not to save money for a rainy day” received the lowest confirmation (59.2%). The average mean of 3.79 shows that respondents have a positive Financial Attitude towards good financial behaviours.

Table 21: Financial Attitude

	SA %	MA %	A %	HA %	EA %	Mean	SD
I tend to live for today and let tomorrow take care of itself	53.4	14.1	15.5	8.6	8.4	3.96	1.338
It is more satisfying to spend money today than to save it for the future	64.5	11.1	13.1	5.2	6.1	4.23	1.220
I like to join conversations about financial matters	8.4	12.3	29.8	21.7	27.8	3.48	1.249
Before I buy something, I carefully consider whether I can afford it	4.7	5.9	18.7	22.2	48.5	4.04	1.154
I find it hard not to save money for a rainy day	27.3	13.5	26.4	16.1	16.7	3.91	1.167
To care for the future is essential for me	4.2	6.2	14.8	22.9	51.9	2.81	1.424
I feel uncomfortable with having loans	10.1	8.1	18.2	20.9	42.7	4.12	1.131
Mean of means						3.79	

SA-slightly agree, MA-moderately agree, A-agree, HA-highly agree, EA-extremely agree

Source: Field Survey (2021)

Financial Attitude among workers within the Public and Private Sectors

As part of the initial analysis, the researcher wanted to examine whether any differences exist in the Financial Attitudes of workers within the public and private sectors. It was envisaged that the job security enjoyed by the public sector workers would affect their overall Financial Attitude towards financial planning/ budgeting and savings. Job security was identified as one of the factors of savings satisfaction (Roszkowski & Grable, 2009).

Even though the mean rank showed 207.37 and 193.21 respectively for both public and private sectors, the Mann-Whitney U test could not establish a statistically significant difference between public (median = 3.88) and private workers (median = 3.75) in terms of their Financial Attitude (U = 15231.5, p = .278, 2 tailed) (see Appendix B). This means that both public and private sector workers have a similar level of Financial Attitude.

Financial self efficacy scale

Financial Self-Efficacy measures the self-perceived capacity, and confidence workers have in managing their finances. Questions asked were negative, and thus, responses graded from "slightly true (ST)"-5 to "extremely true (ET)" -1. Workers who opted for "true" to "extremely true" indicates low confidence and self-perceived capacity to manage their finances.

Table 22 indicates that more than half of the sample choose true to extremely true in five out of the eight questions assessing workers' financial confidence and self-perceived capacity in managing their finances.

Especially the question on "it seems hard to stick to my spending plan in most instances", about 67.7 percent of the sample responded in the affirmative, exhibiting low financial confidence. The question on "I seem to lack confidence in my ability to manage my finance" received the least confirmation (32.6%), thus implying that a lot more workers perceive themselves to have confidence in their ability to manage their finances but are not able to stick to their spending plan. The result from Table 22 indicates an average mean (mean of means) of 3.49 for all eight questions. Accordingly, respondents have moderate confidence in their ability to stick to their spending plan in most instances, with a corresponding mean of 2.95.

Table 22: Responses to Financial Self Efficacy Scale

Survey Item	ST %	MT %	T %	HT %	ET %	Mean	SD
It seems hard to stick to my spending plan in most instances	17.3	15	28.8	23.6	15.3	2.95	1.300
It seems challenging to make progress towards my financial goals	22.4	18.5	26.8	22.9	9.4	3.22	1.281
When faced with a financial challenge, I appear to have a hard time coming up with a solution	36.9	17.8	25.6	11.1	8.6	3.63	1.309
I seem to lack confidence in my ability to manage my finances	50.5	16.9	19.5	6.2	6.9	3.98	1.253
I often postpone financial decisions	33.7	22.4	25.2	11.3	7.4	3.64	1.257
I am anxious about financial and money matters	30	16.1	25.1	17.5	11.3	3.36	1.366
I worry about running out of money during retirement	32.3	19.1	20.7	13.1	14.8	3.41	1.428
When unexpected expenses occur, I usually have to go for a loan	46.8	12.6	20.2	10.8	9.6	3.76	1.384
Mean of Means						3.49	

ST-slightly true, MT-moderately true, T-true, HT-highly true, ET-extremely true
Source: Field Survey (2021)

Financial Self- Efficacy among male and female workers within the formal sector

A study by Wang et al. (2019) found that there are gender differences in the general self-efficacy of people. Females exhibit lower self-efficacy compared to their male counterparts. The disparity can affect their choices and decisions. Another study by Montford & Goldsmith (2016) also observed that women had lower financial self-efficacy than men, which influenced their investment decisions. The researchers further reported that professional training and knowledge remove gender differences, thereby creating a level platform for both male and female decision-makers. The current study also examined differences in the level of Financial Self-Efficacy using the Mann-Whitney U test. The Mann-Whitney U test was conducted to compare composite Financial Self-Efficacy scores in terms of their sex differentials. The results show that, there is no statistically significant difference in male (median = 3.5) and female workers (median = 3.37) Financial Self-Efficacy (U = 18760.00, p = .634, 2 tailed). This means that both male and female workers have a similar level of Financial Self-Efficacy. The fact that gender disparity was not established could be as a result of the homogenous nature of the respondents. All the respondents had some level of education, and Financial Knowledge has been shown to impact Financial Self-Efficacy in the current study. Findings from Anokye M Adam (2017) confirm that in a homogenous group, gender disparity does not exist in financial literacy. The results are presented in Appendix B.

Locus of control

Locus of Control is a person's belief in the extent to which fate, fortune, and destiny could affect the happenings in life (Rasyid et al., 2018). The construct measures the belief that respondents' actions or inactions can affect their financial situation over a period of time. The questions were asked in the positive with responses graded "slightly agree=1" to "extremely agree= 5". Respondents who selected "true" to "extremely true" exhibit internal

Locus of Control whiles those who opted for "slightly" to "moderately" agree are considered to be externals.

More than 75 percent of the respondents choose "agree" to "extremely agree" in all the five items measuring the construct. This indicates that most of the respondents exhibit internal control traits and thus are expected to practice proper financial behaviour. The question, "In the long run, people who take care of their personal finances stay wealthy", received the highest agreeableness (89.9%), with the least consent being "What happens to me is my own doing" (75.6%). People with an Internal Locus of Control are expected to take proactive measures in ensuring that their financial wellbeing is protected in the future. With an average mean of 3.53, respondents are more skewed to the internals on the Locus of Control continuum.

Table 23: Responses to Locus of Control Scale

Locus of Control	SA %	MA %	A %	HA %	EA %	Mean	SD
What happens to me is my own doing	12.1	12.3	31	23.2	21.4	3.30	1.269
Doing things the right way depends upon ability, luck has nothing to do with it	8.9	10.8	29.6	25.9	24.9	3.47	1.224
When I get what I want, it is usually because I worked hard for it.	5.4	10.1	29.6	27.8	27.1	3.61	1.145
In the long run, people who take care of their personal finances stay wealthy	3.7	6.4	24.1	28.1	37.7	3.90	1.095
Many of the unhappy financial situations in people's lives could be their own responsibility	9.9	12.6	30	26.1	21.4	3.37	1.228
Mean of Means						3.53	

SA-slightly agree, MA-moderately agree, A-agree, HA-highly agree, EA-extremely agree
Source: Field Survey (2021)

Locus of Control among male and female workers within the formal sector

Even as the average mean of responses show that the sampled are more inclined to the internal than the external Locus of Control continuum, the researcher further wanted to analyse the gender difference. The Mann-Whitney U test was used to assess the gender differences in formal sector workers' Locus of Control because the data was not normally distributed. The results from the test are presented in Appendix B. The results based on rank seem to suggest that female workers in terms of Locus of Control are more skewed to the Internals (Mean Rank: 207.37) than their male counterparts (Mean Rank: 201.18). The Mann-Whitney U test results show that, there is no statistically significant difference in male (median = 3.5) and female workers (median = 3.6) Locus of Control (U = 18715.5, p = .606, 2 tailed). This means that both male and female workers have a similar Locus of Control.

Descriptive norm

The Descriptive Norm in this study measures the financial behaviour of friends, families, and other important personalities of the respondents. The study sought to examine the link between the financial behaviours of these important personalities of the respondent and the behaviour intention of the respondent. Four questions covering areas of planning and budgeting, savings, and retirement planning were asked. Options were "very few (VF)"-1 to "everybody (E)"-5.

Table 24: Descriptive Norm

Descriptive Norm	VF %	F %	SoT %	VA %	E %	Mean	SD
How many of your friends have a monthly savings plan that they follow regularly?	18.7	31.3	38.4	6.7	4.9	2.48	1.027
Among your colleagues and friends, how many of them do have a monthly budget that they follow?	21.2	30.8	37.2	7.9	3	2.41	1.001
How many of the people you respect and admire have a personal retirement plan apart from the statutory one.	20.4	30.8	28.8	16	3.9	2.52	1.104
Among your friends and family, how many of them do have a contingency/emergency fund.	29.3	31	29.1	5.9	4.7	2.26	1.086
Mean of means						2.42	

VF-very few, F-few, SoT- some of them, VA- virtually all, E-everybody
Source: Field Survey (2021)

Few respondents could attest to the fact that their friends, families and important personalities do practice good financial behaviour, as shown in Table 24. Three percent of the respondents could confirm that all their friends and colleagues have a monthly budget that they follow. With an average mean of 2.42 as displayed in Table 24, families, friends, and important personalities in the lives of respondents have poor financial behaviour. This can impact the financial behaviours of workers within the formal sector negatively.

Behaviour intention and actual financial behaviour

The act of practising good financial behaviours has been noted to require strong will and determination by people (Henager & Mauldin, 2015). Studies have shown that not all people who have the skill to practice good financial behaviour do actually implement the knowledge and skills they possess (Ajzen, 2015; Lusardi, 2015; Yakasai & Jusoh, 2015). Fishbein & Ajzen (2010) identified that not all intentions are acted upon by people and that people may not practice all the good financial behaviours they intended to do because of certain factors that the authors classify as actual control. The study measured Financial Behaviour Intention and actual behaviour being practised by respondents and compared the means. Options were "slightly true (ST)"-1 to "Extremely True (ET)"-5.

Table 25: Financial Behaviour Intention

Financial Behaviour Intention	ST %	MT %	T %	HT %	ET %	Mean	SD
I intend to budget financial resources periodically	4.2	8.1	36	27.6	24.1	3.59	1.068
I intend to track my monthly expenditure regularly	5.4	8.1	31.3	30	25.1	3.61	1.109
I intend to save a percentage of my salary monthly	3.4	5.2	25.6	28.1	37.7	3.91	1.070
I intend to have adequate insurance cover for my family	9.1	9.6	29.8	25.4	26.1	3.50	1.231
I intend to have a personal retirement plan	2.7	5.9	22.4	27.8	41.1	3.99	1.058
I intend to observe my financial plan strictly	5.9	8.6	25.1	27.6	32.8	3.73	1.177
Average Mean						3.72	

ST-slightly true, MT-moderately true, T-true, HT-highly true, ET-extremely true
Source: Field Survey (2021)

The results from Table 25 indicate that the intention to have a personal retirement plan (µ3.99) received the highest confirmation, followed by the intention to save a percentage of one's income (µ3.91), with the least confirmation being the intention to have adequate insurance cover (µ3.50). This reflects the desire of workers to have a better life after retirement and more so since they are required to compulsorily retire at age 60 in most of the formal sectors of the economy. Additionally, it is observed from the responses that workers acknowledge the need to have a separate personal retirement plan aside from the compulsory retirement plan instituted by the government through their institutions of work. This may be as a result of the inadequate nature of such retirement package as a pensioner in this current 2021 financial year can receive as low as GH₵300 equivalent of $51.8 (the exchange rate is GH₵5.8=$1) for a whole month after serving the nation in various capacities for at least 15years (SSNIT, 2021). According to the poverty index, this automatically classifies the pensioner as poor since he or she earns less than $1.9 a day (GSS, 2020).

Table 26 presents the mean performance of respondents on Actual Financial Behaviour for the thirteen questions posed. The financial behaviour with the highest mean (µ4.14) was 'I often borrow to support household demands. The question was negative, so the responses were re-coded, and thus the highest mean represents that respondents 'do not often borrow to support household demands. It is followed by 'I carefully consider whether I can afford something before I buy'. The activity with the least mean of 2.64 is in the area of savings, "I have been saving part of my income every month at least for the last 3months". This shows that formal sector workers are not saving adequately, which is precarious to their financial well-being (Narges & Laily, 2011).

Even though workers intended to have a personal retirement plan as it recorded the highest mean under Financial Behaviour Intention, most workers are actually not taking the necessary steps to get this done. This may be due to actual controls like income levels of workers, as posited by Fishbein & Ajzen (2010), that inhibit the achievement of this goal. In instances where workers are earning lower income which may not cover the needed expenses of the household, it becomes very difficult to save. About 8.4 percent of the respondents were earning below Gh500 a month, and if they have the standard household of three persons, it then becomes difficult to save where that salary is the only income to the household.

The mean confirmation for having a personal retirement fund (µ2.93) was below the average composite mean (3.24) of Actual Financial Behaviour. Again, comparing the intention of having a personal retirement plan (µ3.99) to the mean (µ2.93) of actually having a personal retirement fund apart from the statutory requirement reflects the fact not all intentions are acted on, and this may be accounted for by many factors including the level of income earned and consumption pattern of workers in the formal sector (Table 26).

Table 26: Actual Financial Behaviour

Actual Financial Behaviour	ST %	MT %	T %	HT %	ET %	Mean	SD
I have a monthly financial plan in place at least for the last 3months	17	12.6	29.6	18.5	22.4	3.17	1.365
I have been tracking monthly actual expenditure with budgeted at least for the last 3months	18.7	16.3	32.3	18.0	14.8	2.94	1.297
I pay my bills on time	4.2	9.4	35.2	21.2	30	3.64	1.129
I carefully consider whether I need something before I buy	2.5	9.6	32.0	23.2	32.8	3.74	1.091
I carefully consider whether I can afford something before I buy	2.7	5.4	29.8	24.9	37.2	3.88	1.058
I often borrow to support household demands	61.3	9.9	15.0	9.4	4.4	4.14	1.233
I ensure that my non-mortgage debt is below 25% of my disposable income	20.7	15.3	28.1	11.3	24.6	3.04	1.443
When unexpected expenses occur, I usually have to borrow	20.7	15.0	19.5	11.6	33.3	2.78	1.544
I have been saving part of my income every month at least for the last 3months	33.3	14.3	24.4	11.6	16.5	2.64	1.457
I have emergency fund/savings	28.3	9.4	26.8	11.8	23.6	3.18	1.367
I have insurance cover for myself/ family						2.95	1.519
I have a personal retirement fund apart from the statutory requirement						2.93	1.514
What percentage (%) of your income do you save every month						3.13	1.280
Average Mean						3.24	

ST-slightly true, MT-moderately true, T-true, HT-highly true, ET-extremely true
Source: Field Survey (2021)

Comparing the means of Financial Behaviour Intention and Actual Financial Behaviour

The study examined whether there exist differences in respondents' intention and Actual Financial Behaviour as posited by (Ajzen, 2015). Even though Actual Financial Behaviour was normally distributed, Financial Behaviour Intention was non-parametric. This made it appropriate to employ a non-parametric statistic. The results suggest that respondents' Financial Behaviour Intention ranks higher (Median: 3.83) than their Actual Financial Behaviour (Median: 3.25). This observation was subjected to a more rigorous statistical test to determine the relationship.

The Wilcoxon test was conducted to compare the composite mean score of Financial Behaviour Intention and Actual Financial Behaviour of respondents. The results show that there is a statistically significant difference between Financial Behaviour Intention and Actual Financial Behaviour of workers (Z = 11.028, p = .001, 2 tailed). The results are presented in Appendix A. This means that respondents intend to practice good financial behaviours. However, due to certain actual controls like income level and the assurance of Family Support, not all intentions are acted upon as established by Ajzen (1985). These actual control factors are further examined based on the hypotheses of the study.

Chapter Summary

The initial analysis showed that the ratio of public to private workers from a sample of 406 respondents was 295:111 whilst 63.1 percent of the respondents have one or more degrees in various fields of study. Additionally, it was observed that the sample was youthful, with 75.9 percent of respondents within the ages of 26-40 years. Males dominated the survey with 62.6 percent, whereas respondents earning GH₵ 2,000 and below constituted the majority (58.4%) of the sample. Included in this figure is 8.4 percent of respondents earning a monthly income below GH₵ 500. Workers who had the assurance of financial support from family were 47.3 percent of the total sample.

Preliminary analysis of the major variables of the study depicts an average Financial Knowledge level for respondents in general. Data available shows that there is overconfidence as respondents' Perceived Financial Knowledge was higher than the Actual Financial Knowledge recorded. More than 50 percent of respondents reported high Perceived Financial Knowledge as against 18.5 percent of respondents obtaining high Actual Financial Knowledge score. Even though initial analysis showed that private-sector workers and workers within the Accra metropolis exhibit higher Financial Knowledge compared to Public sector workers and workers from other localities of the survey, further rigorous analysis did not sustain this observation.

Respondents' performance in terms of Financial Attitude, Financial Self-Efficacy, Locus of Control, Financial Behaviour Intention, and actual were all above average with the exception of the Descriptive Norm (average mean-2.42). Gender disparity was not established in all tested variables even though females appear to rank higher in terms of Financial Self-Efficacy and skewed more to the internal side of the Locus of Control continuum.

CHAPTER FIVE

EFFECT OF FINANCIAL KNOWLEDGE ON ACTUAL FINANCIAL BEHAVIOUR, FINANCIAL ATTITUDE AND SELF-EFFICACY

Introduction

This chapter reports on the direct effects of Financial Knowledge on financial behaviour, Financial Attitude and self-efficacy. This constitutes objectives one and two of the study. The chapter is in two parts, with the first section focusing on the direct effect of both perceived and Actual Financial Knowledge on Actual Financial Behaviour, thus research objective one. The second section reports on the correlations observed between Financial Knowledge (perceived and actual) and Financial Attitude and self-efficacy.

Sampling Base

The sampling base was the same for the whole study. 620 questionnaires were distributed, and a response of 495 questionnaires was received. Out of the responses received, 406 answered questionnaires were used to analyse both research objectives one and two.

Theoretical Framework

The major theory underpinning the entire study is the reasoned action approach propounded by Fishbein and Ajzen (2010) and supported by the life cycle hypothesis by Franco Modigliani (1957) and the cushion hypothesis by Hsee and Weber (1998). However, research objectives one and two are supported by the reasoned action approach. The theory postulates that actual behaviour performed by people are based on intentions developed, which is a build-up from the attitude, perceived control and norms. Additionally, attitude and perceived control also result from beliefs developed over a period or some background information available to the person. The study considers Financial Knowledge, both perceived and actual as the background knowledge that could influence a person's Financial Attitude and Self-efficacy and the Actual Financial Behaviour in respect of financial planning/budgeting and savings. PLS-SEM algorithms were used in assessing both the outer and inner models. The observations of the analysis are discussed hereafter in the light of existing literature.

Effect of Financial Knowledge on Actual Financial Behaviour

The impact of Financial Knowledge on Financial Behaviour has long been in contention in literature. Some researchers have found empirical evidence to support the assertion that Actual Financial Knowledge indeed impacted positively on Financial Behaviour (Arifin, 2017; Garber & Koyama, 2017; Kadoya & Khan, 2017). Others have also found evidence empirically to support the assertion that Financial Knowledge does not necessarily improve Financial Behaviour but may improve a person's financial competence and skills (Borden, Joyce, & Dawn, 2008; Kholilah & Iramani, 2013; Henager & Mauldin, 2015).

The objective one sought to investigate the direct effect of Actual Financial Knowledge (AFK) and Perceived Financial Knowledge (PFK) on Actual Financial Behaviour (AFB). Also, a detailed analysis of the effects of Actual Financial Knowledge (AFK) and Perceived Financial Knowledge (PFK) on Planning/Budgeting Behaviour (PBB) and Savings Behaviour (SB) were done. AFB is a function of PBB and SB. The results are presented and discussed with an initial assessment of the outer and inner models according to the requirement of PLS-SEM.

Outer model specification

The section assesses the reliability and validity indicators of the variables and benchmarks them to the acceptable requirement to enable further analysis to be conducted.

The constructs in this model were all assessed based on reflective measures. The outer model was therefore analysed using the reflective measure specifications. AFB was a function of SB and PBB. Thus, the outer model specification of SB and PBB were proxies for assessing the outer model for AFB. The results are presented in Table 27, *Figure* **5**, and Figure 6.

Table 27: Objective One Outer Model Specifications

Latent Construct	Indicators	Outer Loading	CA	rho_A	CR	AVE
Perceived Financial Knowledge (PFK)	PFK40	0.728	0.805	0.815	0.872	0.631
	PFK41	0.852				
	PFK42	0.831				
	PFK43	0.760				
Savings Behaviour (SB)	Svns77	0.832	0.721	0.760	0.834	0.628
	Svns78	0.705				
	Svns79	0.834				
Planning/Budgeting Behaviour (PBB)	Pl_Bdg68	0.660	0.739	0.753	0.826	0.632
	Pl_Bdg69	0.691				
	Pl_Bdg71	0.777				
	Pl_Bdg72	0.728				
Actual Financial Knowledge (AFK)	Budg	0.933	0.698	0.726	0.769	0.542
	Infla	0.475				
	Sav	0.728				

Source: Field Survey (2021)

Indicator Reliability

From the results (Table 27; Figure 6), the various indicators of each construct met the acceptable and preferred thresholds. Perceived Financial Knowledge and Savings had all of its indicators exceeding the minimum preferred threshold of 0.7. Also, Actual Financial Knowledge behaviour had only one (Infla=0.475) of its indicators not measuring up to 0.7 but exceeded the acceptable threshold of 0.40 (Hair et al., 2014). The factor loadings of Planning/Budgeting Behaviour met the preferred threshold of 0.7 with the exception of questions 68 and 69 on Planning and Budgeting (Pl_Bdg68,69 =.660, .691). Nonetheless, it met the acceptable threshold. Consequently, the result suggests that there is indicator reliability in the model.

Internal Consistency Reliability

Internal consistency reliability was evaluated with rho_A because it augments Cronbach's alpha and composite reliability weaknesses. The results in Table 27 shows that for all the reflectively measured constructs (AFK, PFK, PBB, & SB), there was internal consistency reliability within their measures. This was because rho_A for each of them exceeded the minimum threshold of 0.7 (Hair et al., 2014) (i.e., PFK=.815, SB=.760, PBB=.753 & AFK=.726). The results thus indicated that the measures in the model met the requirement for internal consistency reliability.

Convergent Validity

The average variance extracted (AVE) was used to measure the convergent validity of the indicators. The results from Table 27 show that PFK, SB, PBB and AFK had.631, .628, .632 and .542, respectively. This proves that convergent validity was present in the model as they met the 0.50 criterion (Hair et al., 2014).

Discriminant Validity

The HTMT ratios were examined together with their respective confidence intervals to assess the discriminant validity in the model. The results in Table 28 revealed that all the constructs had discriminant validity as none of the ratios exceeded the maximum threshold of 0.9 (Hair et al., 2019).

The values were significantly different from 0.9 as the upper limits of all the CIs were below 1. The results ultimately indicate that the measures in the model satisfied the requirement for discriminant validity.

Table 28: Objective One Hetrotrait-Monotrait Ratios (HTMT)

	HTMT Ratio	Confidence Interval (CI)
SB< -> PBB	0.569	$CI_{0.900}$[0.459-0.674]
AFK <-> PBB	0.126	$CI_{0.900}$[0.064-0.221]
AFK< -> SB	0.078	$CI_{0.900}$[0.040-0.174]
PFK <-> PBB	0.424	$CI_{0.900}$[0.305-0.555]
PFK <-> SB	0.269	$CI_{0.900}$[0.166-0.397]
PFK -> AFK	0.341	$CI_{0.900}$[0.247-0.436]

Source: Field Survey (2021)

Outer Model Significance

With reference to the prescription by Wong (2013), the results (see Appendix C) reveals that all the indicators in the model significantly measured their respective construct as none of them exceeded the maximum threshold of an alpha value equal to or less than 0.05.

Specifying the inner model

The inner model was analysed with path coefficients, coefficient of determination, predictive relevance and effect sizes. The results were presented in Table 29 and Figures 12, 13.

Multicollinearity assessment

There was an assessment of multicollinearity with VIFs and Tolerance. The results from Table 29 showed that none of the VIFs exceeded the maximum limit of 5. The results suggest that there is no issue of collinearity among the exogenous constructs.

Path coefficient assessment

The path coefficient was used to analyse the hypotheses of the model for objective 1. The first objective examines the effect of Financial Knowledge, both perceived and actual, on Actual Financial Behaviour, planning/budgeting and savings. Six hypotheses were examined, namely:

H1a: Actual Financial Knowledge positively influences Actual Financial Behaviour
H1b: Perceived Financial Knowledge positively influences Actual Financial Behaviour
H1c: Actual Financial Knowledge positively influences Planning/Budgeting Behaviour
H1d: Actual Financial Knowledge positively influences Savings Behaviour
H1e: Perceived Financial Knowledge positively influences Planning/Budgeting Behaviour
H1f: Perceived Financial Knowledge positively influences Savings Behaviour

The results have been presented according to the six (6) stated hypotheses in Table 29, *Figure* **5**, and, Figure 6.

Table 29: Inner model Specification

Hypotheses	Beta (β)	SD	t-stat	P-value	R^2	f^2	Q^2	q^2	VIF
H1a: AFK -> AFB	.049	.083	.597	.550	.121	.000	.052	-.002	1.102
H1b: PFK -> AFB	.342	.048	7.102	.000	.121	.122	.052	.054	1.102
H1c: AFK -> PBB	.053	.080	.666	.506	.108	.000	.046	.001	1.102
H1d: AFK -> SB	.020	.072	.272	.785	.057	.000	.021	-.002	1.102
H1e: PFK -> PBB	.319	.052	6.154	.000	.108	.108	.046	.049	1.102
H1f: PFK -> SB	.236	.048	4.898	.000	.057	.053	.021	.030	1.102

Source: Field Survey (2021)

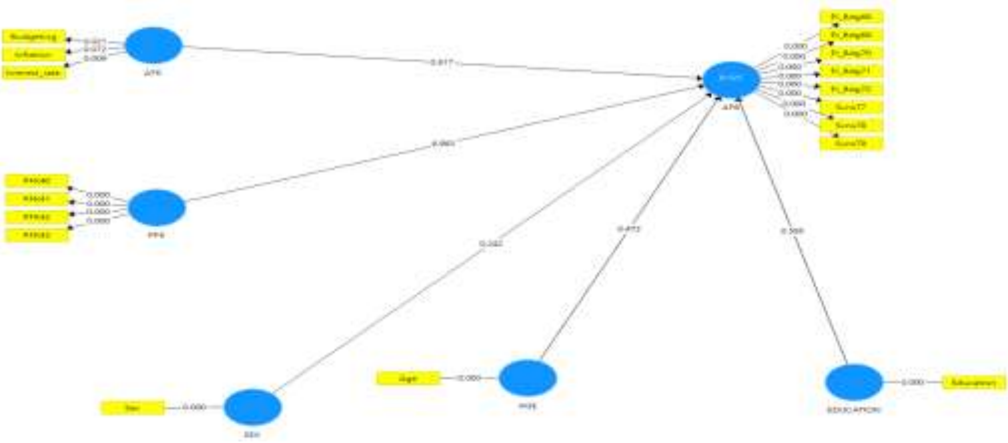
Budgeting
Inflation
Interest_rate
AFK
0.817
0.060
0.322
0.472
0.388
AFB
Sex
0.000
SEX
Age
0.000
EDUCATION
0.000
Education

Figure 5: Effect of Financial knowledge on Actual financial behaviour
Source: Field Survey, Sam (2021)

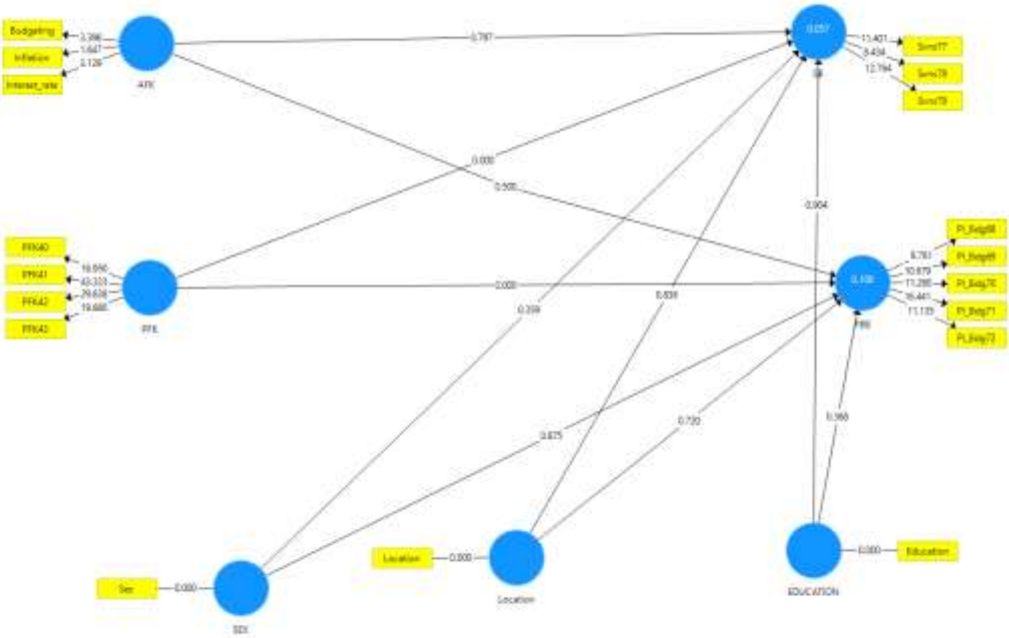
Budgeting
Inflation
Interest_rate
3.396
1.647
2.126
AFK
0.787
0.057
11.401
8.434
12.764
Sins77
Sins78
Sins79
0.000
0.500
0.904
PFK40
PFK41
PFK42
PFK43
18.890
43.333
29.638
19.686
PFK
0.000
0.359
0.838
0.108
8.761
10.879
11.286
16.441
11.135
PI_Bdg68
PI_Bdg69
PI_Bdg70
PI_Bdg71
PI_Bdg72
PFB
0.875
0.720
0.366
Sex
0.000
SEX
Location
0.000
Location
0.000
Education
EDUCATION

Figure 6: Effect of Financial knowledge on financial planning/budgeting and Savings behaviour
Source: Field Survey, Sam (2021)

H1a: Actual Financial Knowledge positively influences Actual Financial Behaviour.

The first hypothesis in achieving objective one of the study examined the influence of Actual Financial Knowledge on Actual Financial Behaviour. The results indicate that AFK had no statistically significant influence on AFB of formal sector workers (β = -.049 p=.550; Table 29, *Figure* **5**). This means that regardless of the knowledge a formal sector worker has in finance, his financial behaviour appears not significantly influenced by it. The hypothesis was therefore not supported.

H1b: Perceived Financial Knowledge positively influences Actual Financial Behaviour

The second hypothesis addressed the influence of Perceived Financial Knowledge on Actual Financial Behaviour. Contrary to the AFK, PFK appears to have a significant and positive influence on workers' AFB (β = .342, p=000, f^2 =.122; Table 29, *Figure* **5**). This means that as workers perceive themselves to have knowledge in finance and also exhibit the understanding of the Financial Knowledge to their personal finances, their financial behaviours are likely to be influenced positively.

Discussion of Findings

Actual Financial Behaviour was assessed using the person's ability to calculate and interpret financial terminologies related to financial planning/budgeting and savings through multiple-choice test questions. Likewise, Perceived Financial Knowledge was based on the person's subjective assessment of his/her understanding of financial planning/budgeting and savings and how they relate to their personal finances.

The first hypothesis (H1a) could not establish a significant relationship between AFK and AFB. Meaning objectively possessing financial knowledge does not necessarily lead to improved financial behaviour of formal sector workers, especially in financial planning/budgeting and savings. Having the knowledge and practically implementing what one knows are two different things. People may have finance-related knowledge based on their educational background or some financial training that they have participated but appreciating the impact of such knowledge on their personal finances is another dimension of behaviour that a person must consciously undertake. As argued by Braustein and Welch (2002), the relationship between behaviour and knowledge is more complicated as improved knowledge does not automatically produce improved behaviour. Kholilah and Iramani (2013) also questioned the link between knowledge and behaviour as their result did not establish a significant relationship between Financial Knowledge and financial behaviour. The study by Borden et al. (2008) further suggests that greater knowledge may improve one’s financial skill and capability as well as intentions towards proper financial behaviour but not necessarily following through with the action of more responsible behaviour. This appears to be the case for most formal sector workers, especially those who, by their profession, have Financial Knowledge. It is often assumed that Financial Knowledge must be applied only at the corporate level and not to the individual’s finances (Galperti, 2016; Walther & Skousen, 2009).

However, the observation was not consistent with the findings of Nguyen et al. (2017), who found Actual Financial Knowledge to influence savings behaviour. The broad spectrum of respondents, including formal and informal workers, students, and the general customers of a bank used for their study, maybe the reason for the varying observation. Additionally, respondents answered research items covering basic Financial Knowledge, savings and general investment. Planning and budgeting was not part of the focus of their study.

The second hypothesis, however, observed a significant positive relationship between PFK and AFB. This happens when the worker perceives to understand the link between the knowledge they may possess and its implications on their financial well-being. The effect size of PFK on AFB is between small to medium (f^2 =.122) according to Hair et al. (2019). This means that in an effort to improve actual financial behaviour of formal sector workers, their perceived financial knowledge must be enhanced alongside other factors of interest like Financial attitude, Descriptive norm and locus of control.

It was observed from reviewing empirical literature that most of the studies that have found a positive link between Financial Knowledge and financial behaviour measured Financial Knowledge subjectively (Hilgert, Hogarth, & Beverly, 2003; Perry & Morris, 2006; Arifin, 2017). The findings of the second hypothesis are consistent with studies by Henager and Mauldin, (2015), who found Perceived Financial Knowledge and planning as indicators of the decision to save regularly.

Separate effects of Financial Knowledge on Planning/Budgeting behaviour and Savings Behaviour

H1c: Actual Financial Knowledge positively influences Planning/Budgeting Behaviour

The third hypothesis for objective one examined the influence of Actual Financial Knowledge on Planning/Budgeting behaviour. The results (Table 29; Figure 6) suggested that there was no statistically significant influence of Actual Financial Knowledge on Planning/Budgeting Behaviour (β =-.053 p=.506). This result means that the actual knowledge someone may have in finance may not necessarily determine that person's planning and budgeting behaviour. Thus, the hypothesis was not supported.

H1d: Actual Financial Knowledge positively influences Savings Behaviour

To explore the influence of Actual Financial Knowledge on Savings Behaviour, the Beta value in Table 29 and Figure 6 was observed. The hypothesis was not supported as Actual Financial Knowledge had no statistically significant influence on Savings Behaviour (β =.020; p=.785). This means that a worker may be objectively classified as financially knowledgeable due to his or her ability to calculate and explain financial terms. However, that Financial Knowledge he or she possesses may not necessarily influence their savings behaviour.

Discussion of findings

Arguably, persons considered to be financially knowledgeable in terms of the benefits of financial planning and the capacity to prepare a budget are expected to put in place measures to practice such behaviour. Unfortunately, it appears this is not the case for the respondents of this study and, by extension, formal sector workers. Budgeting is seen to be a cumbersome process by many (Wagoner, 2012). It may also mean that a lot more people do mental budgeting instead of a written budget, even though that is also considered a form of budgeting. Additionally, the perception that there is a regular flow of income monthly may also be a contributing factor to the behaviour observed. That notwithstanding, it appears that workers who are considered financially knowledgeable may have different ways of accounting for the use of their finance. Some resort to mental budgeting, even though they do not have a written budget that they follow. They resort to some bases in mind that guide the use of their funds. Others have also classified their expenses into routine and non-routine expenditure in memory and thus have prioritised how to meet those demands when they fall due (Wagoner, 2012).

The findings of Actual Financial Knowledge on Savings behaviour seems to rhyme with findings from Henager and Mauldin (2015) even though some other studies have also found higher education for women (Afoakwah et al., 2015), household size and composition (Capéau & De Rock, 2015), perceived behavioural control and financial planning (Shim, Serido, & Tang, 2012) as some of the factors that can influence savings behaviour among workers.

H1e: Perceived Financial Knowledge positively influences Planning/Budgeting Behaviour

The next hypothesis also examined the influence of Perceived Financial Knowledge on Planning/Budgeting Behaviour. It was revealed (Table 29; Figure 6) that Perceived Financial Knowledge significantly and positively influenced the planning/budgeting behaviour of people (β =.319, p=.000, f^2 =.108).

H1f: Perceived Financial Knowledge positively influences Savings Behaviour

The final hypothesis of the second objective examined the influence of Perceived Financial Knowledge on Savings Behaviour (Table 29, Figure 6). The results once again revealed that Perceived Financial Knowledge had a positive and significant influence on the savings behaviour of individuals (β =0.236, p=0.000, f^2 =.053). This suggests that the more people perceive themselves to have knowledge in finance and understand how their financial behaviour relates to financial wellbeing, the more likely, they are influenced to develop a better savings behaviour. The last hypothesis of the study was therefore supported.

Discussion of findings

When people perceive themselves to have knowledge in finance and understand how financial planning/budgeting and savings behaviour benefits the individual, the result suggests that people are likely to be influenced by the Financial Knowledge they perceive to have. Even though the effect size of perceived financial knowledge on planning/budgeting (f^2 =.108) and savings (f^2 =.053) is not large, steps to improve workers perceived knowledge in finance and their appreciation of the impact these have on their financial wellbeing will be a great contribution to improved financial behaviour on budgeting.

Personal budgeting behaviour has not received adequate attention in research compared to savings behaviour. However, a study by Harrington et al. (2016) on business students indicates that prior financial education, attitude, subjective norm and perceived behavioural control are other contributing factors in developing the intention to budget. Empirical literature appears to be inadequate to foster a lot more discussions in the area of personal budgeting.

The finding of Perceived Financial Knowledge and Savings behaviour rhymes with Arifin's (2017) and Riitsalu (2019) conclusions, who also reported a positive correlation between savings behaviour and Perceived Financial Knowledge. The findings bring to bear the fact that being able to calculate and interpret financial figures in itself is not enough. However, the understanding that a person’s financial behaviour has implications on the household's financial health and even on retirement may be the influencing factor.

Explanation of Variance in Endogenous Variable

It was imperative to determine the explained variations in the endogenous constructs by the exogenous constructs. This was done by examining the coefficient of determination (R^2). The R^2 shows the predictive power of the model. The results are presented in Table 29, *Figure* **5**, and, Figure 6. Actual Financial Knowledge and Perceived Financial Knowledge explain Actual Financial Behaviour's variation (R^2=.121, p=.000). Both exogenous constructs put together explained 12.1% variations in the Actual Financial Behaviour. This meant that Financial Knowledge especially perceived knowledge, is prominent in determining financial behaviour with other factors like income and control (Arifin & Anastasia, 2017; Riitsalu, 2019), Financial Attitude (Fünfgeld et al., 2009) and culture (Paule-Paludkiewicz, Fuchs-Schündeln, & Masella, 2017) accounting for the remaining variations.

The exogenous constructs (Actual Financial Knowledge and Perceived Financial Knowledge) jointly had a statistically significant but weak influence on Planning/Budgeting Behaviour (R^2=.108, p=.002). As presented in Table 29, the exogenous constructs accounted for approximately 10.8% variations in the Planning/Budgeting Behaviour. Factors like prior financial training, attitude, subjective norm and perceived behavioural control (Harrington et al., 2017) may also account for the remaining variation in the Planning/Budgeting Behaviour.

Finally, the exogenous constructs (Actual Financial Knowledge and Perceived Financial Knowledge) positively but weakly influenced the savings behaviour of individuals (R^2=.057, R^2Adj=.051, p=.002) as they explained only 5.7% of the variation. This means that other factors like higher education for women (Afoakwah et al., 2015), household size and composition (Capéau & De Rock, 2015), perceived behavioural control and financial planning (Shim et al., 2012), access to banking services (Koomson, Annim, & Peprah, 2016) could be additional factors that explain the variations in savings behaviour.

Effect Sizes (f^2) of Exogenous Variables

The effect sizes of the exogenous constructs' influence on the endogenous constructs were assessed with Cohen's (1998) f^2. The contributions of each construct to the predictive power of the model were examined. The results are presented in Table 29.

Results from Table 29 shows that Actual Financial Knowledge (f^2=.000) has no statistically significant effect on the model that explained variance in Actual Financial Behaviour. Perceived Financial Knowledge, however, had a significant but small effect on the predictive power of the model that explained variance in Actual Financial Behaviour.

Actual Financial knowledge (f^2=.000) contributed no effect to the model that explains the variance in Planning/Budgeting Behaviour (Table 29). This means that Actual Financial knowledge has no significant contribution to the predictive power of the model. However, Perceived Financial Knowledge (f^2=.108) had a small effect size on the model.

Moreover, Actual Financial Knowledge (f^2=.000) had no effect on the model's predictive power to explain variation in Savings Behaviour. However, Perceived Financial Knowledge (f^2=.053) had a small effective contribution to the model's predictive power.

Predictive Relevance (Cross-validated Redundancy)

The models' predictive relevance as well as the contributions of the various exogenous constructs to the models' predictive relevance, were assessed. The Q^2 and q^2 were examined. The results are presented in Table 29.

The result shows that the model that predicted Actual Financial Behaviour had predictive relevance (Q^2=.052) because the value for Q^2 was greater than 0. Also, while Actual Financial Knowledge (q^2=-.002) did not contribute to the predictive relevance, Perceived Financial Knowledge (q^2= .054) significantly contributed to the predictive relevance.

The model predicting Planning/Budgeting Behaviour (Q^2=.046) had predictive relevance since the Q^2 was greater than 0. However, while Perceived Financial Knowledge had a small effective contribution to the predictive relevance, Actual Financial Knowledge had no effective contribution to the predictive relevance of the model.

Finally, the model predicting Savings Behaviour (Q^2=.021) also had predictive relevance. Once again, Perceived Financial Knowledge had a small effect on the predictive relevance, whereas Actual Financial Knowledge had no effect on the predictive relevance.

The influence of Actual Financial Knowledge and Perceived Financial Knowledge on Financial Attitude and Financial Self-Efficacy

The initial hypotheses observed the non-significant influence of Actual Financial Knowledge on Financial behaviour as positioned by some researchers like (Braustein and Welch 2002; Borden, Joyce, & Dawn, 2008; Kholilah & Iramani, 2013; Henager & Mauldin, 2015). Even though Actual Financial Knowledge does not directly impact financial behaviour, the findings of other studies have shown that Actual Financial Knowledge impacts the skills and competence of people (Henager & Mauldin, 2015).

The second objective sought to explain the influence of Actual Financial Knowledge and Perceived Financial Knowledge on Financial Attitude and Financial Self-Efficacy. Financial Attitude takes the form of tendencies or preferences toward particular financial behaviour. Financial Self-Efficacy, on the other hand, is the conviction that one can successfully execute certain financial behaviour to produce the required results. Partial least squared structural equation modelling was used to test the hypothesis. The results are presented in Table 29 and Figure 7.

Outer Model Specification

The constructs used for this model were measured using the reflective indicators. Hence, the outer model was subjected to indicator reliability, internal consistency reliability, convergent validity, and discriminant validity assessments (Hair et al., 2019). The results are presented in Appendix D.

Reliability and Validity Indicators

The outer loading was used to assess the reliability of the indicators that were used to measure the various constructs. From the results (see

Appendix D), it is identified that all the indicators met the preferred threshold (≥0.7) according to Hair et al. (2019). This means that their respective latent constructs explain about 50% of the variations in the indicators. Consequently, the results prove that indicator reliability exists in the model.

From Appendix D, the rho_As were .715, .886, .968 and .715 for Financial Attitude, Financial Self efficacy, Perceived Financial Knowledge and Actual Financial Knowledge, respectively. Also, the Cronbach's alphas in the model ranged between .698 and .872, whereas the Consistent reliability ranged from .818 to .901. These results indicate that there is internal consistency among all the measures of the various latent constructs in the model.

It is evident from Appendix D that all the measures had convergent validity. Perceived Financial Knowledge (.529) had the least AVE, followed by Financial Self-Efficacy (.566), Actual Financial Knowledge (.619) and Financial Attitude (.633) had the highest AVE. This means that commonality exists in the model as all the constructs explain more than 50% variations in their respective indicators. Therefore, the required presence of convergent validity in the model has been satisfied.

The Heterotrait-Monotrait ratio was used to perform the discriminant validity assessment. The result from Appendix D indicates that none of the ratios exceeded the threshold of .900. The highest ratio was .341. Further assessment was made with the bootstrapping confidence interval (CI) to affirm whether the ratios were significantly different from .900. Again, the results show that all the values were significantly different from .900 as the highest confidence interval ranged between .244 and .448 with its upper limit lesser than .9. It was therefore concluded that the indicators had discriminant validity hence are true measures of their respective constructs.

Outer and inner model significance

The outer model assessment was concluded with a significance test. Wong (2013) recommends a significance at an alpha value of .05 and a T-statistic above 1.96. This was satisfied.

Having satisfied the specifications for the outer model, the inner model was assessed. This directly addresses the hypotheses of the second objective of the study. The procedures prescribed by Hair et al. (2019) and Wong (2013) were duly followed. Multicollinearity, path coefficients, effect sizes (f^2 and q^2), coefficient of determination, and predictive relevance were reported. The results, as presented in Table 29, indicate that the model has met the criteria.

Path coefficient assessment

The second objective hypothesised four relationships, and they were subjected to a test with the partial least squared structural equation modelling. The four hypotheses are as follows:

H2a: Actual Financial Knowledge positively influences Financial Attitude
H2b: Perceived Financial Knowledge positively influences Financial Attitude
H2c: Actual Financial Knowledge positively influences Financial Self-Efficacy
H2d: Perceived Financial Knowledge positively influences Financial Self-Efficacy

The path coefficients (β) of the hypotheses testing are presented in Table 30 and Figure 7.

Table 30: Objective Two Structural Model Path Coefficients

Hypotheses	Beta (β)	SD	t-stat	P-value	R^2	f^2	Q^2	q^2	VIF
H2a: AFK -> FA	0.107	0.058	1.792	0.066	0.099	0.011	0.051	0.006	1.1
H2b: PFK -> FA	0.247	0.049	5.015	0.000	0.099	0.061	0.051	0.035	1.1
H2c: AFK->FSE	0.131	0.050	4.830	0.017	0.106	0.057	0.054	0.029	1.1
H2d: PFK ->FSE	0.005	0.057	0.305	0.924	0.106	0.000	0.054	-0.001	1.1

Source: Field Survey (2021)

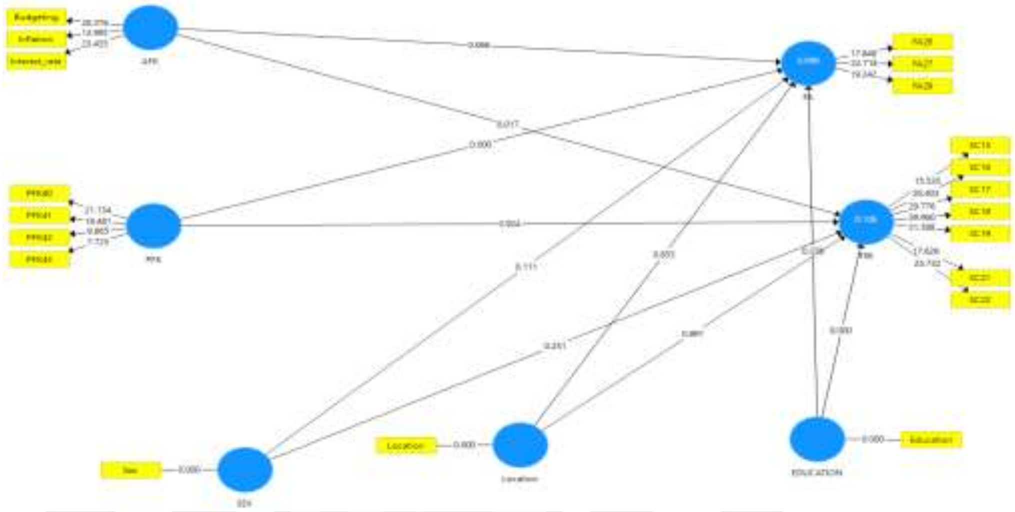
Budgeting
Inflation
Interest_rate
AFK
PFK
FA
FSE
FA26
FA27
FA28
SC15
SC16
SC17
SC18
SC19
SC21
SC22
21.134
18.481
9.865
7.729
17.848
22.718
19.242
20.403
29.776
17.626
23.702
0.066
0.017
0.000
0.924
0.111
0.251
Sex
SEX
Location
EDUCATION
Education

Figure 7: The influence of financial knowledge on financial attitude and self-efficacy.
Source: Field Survey, Sam (2021**)**

H2a: Actual Financial Knowledge positively influences Financial Attitude

Analysis of the first hypothesis indicates that there is no statistically significant influence of Actual Financial Knowledge on Financial Attitude (β=0.107, p=0.066, f^2=.011; Table 30, *Figure 7*). Therefore, the hypothesis was not supported. The observation meant that the Actual Financial Knowledge an individual has does not necessarily influence the Financial Attitude that the individual will develop towards the personal finance activities under study. Additionally, it also means that an increase in Actual Financial

Knowledge of a formal sector worker may not necessarily improve the persons' Financial Attitude.

H2b: Perceived Financial Knowledge positively influences Financial Attitude

The second hypothesis was supported as the test shows that Perceived Financial Knowledge has a statistically significant positive influence on Financial Attitude (β=0.247, p=0.000, f^2 =.061; Table 30, *Figure 7*). This means that Perceived Financial Knowledge contributes to the Financial Attitude an individual develops. When a person perceives him or herself to be financially knowledgeable, the findings show that the person will exhibit a better Financial Attitude than a person who subjectively rates him or herself lower.

Discussion of Results

The findings that Actual financial knowledge does not influence Financial attitude reflect that respondents may have knowledge in finance through their field of study, financial training that they have participated in, and other forms of informal education, with almost half (49.3%) of the respondents reporting to have had financial training is not enough to influence positive attitudes towards financial planning/ budgeting and Savings behaviour. Additionally, their attitude towards proper financial practices like preparing and living on a periodic budget and having regular savings may not be dependent on the prior knowledge they have been exposed to probably due to the orientation that the Financial Knowledge they have is for the corporate world and not to be used for personal management of finance. People believe that budgeting is necessary only when resources are scarce or inadequate.

Thus, when they have regular and enough monthly income, in the case of formal sector workers, budgeting is not needful. Alternatively, people are also of the view that budgeting makes them feel bad about their income being inadequate, thereby creating unfavourable experiences.

Especially, low-income earners may not want to budget because their income may not be sufficient to cater for all their needs hence, serving as a demotivation to budget periodically. Additionally, because the Income may not be adequate, attitude towards regular savings becomes a challenge. Ironically, having inadequate or high income is expected to be a very good reason for budgeting. This will enable the person to direct the scarce or excess resources to areas of prime importance.

However, the observation from the second hypothesis (H2b) gives a differing view. According to Fishbein & Ajzen (2010), attitudes are based on beliefs from past experiences and future anticipations. When workers believe that they have the required knowledge to manage their personal finances and also understand the benefits it offers to the individual and household, the chances are that they will develop a positive Financial Attitude towards these activities. Even though the effect size ($f^2 = .061$) is small, the relationship shows that Improving perceived knowledge alongside other beliefs may improve financial attitude. The second hypothesis, therefore, argues that the ability to calculate the interest rate and prepare budgets and other finance-related issues does not imply that a worker recognises the benefits and impact these calculations have on their personal finances. Thus without recognising the benefits the finance knowledge acquired will bring to the person, personal finance will continue to be more personal than it is finance.

Controlling for the effects of locational, educational and sex differences did not vary the initial findings significantly. The results confirm that financial attitude is indeed based significantly on non-cognitive factors like past experiences, future orientation and beliefs more than the knowledge on the subject matter of interest.

H2c: Actual Financial Knowledge positively influences Financial Self-Efficacy

The third hypothesis test revealed that Actual Financial Knowledge positively influences Financial Self-Efficacy (β=.131, p=.017, f^2 =.057); Table 30, *Figure 7*). Inferring from the result, an increase in Actual Financial Knowledge will lead to a marginal increase in an individual's confidence in their capacity to manage financial issues. Financial capacity and skills are achieved when people objectively have adequate knowledge of finance-related topics, including budgeting and savings (Henager & Mauldin, 2015).

H2d: Perceived Financial Knowledge positively influences Financial Self-Efficacy

The final hypothesis test revealed that Perceived Financial Knowledge has no statistically significant influence on Financial Self-Efficacy (β=.017, p=.761; Table 30, *Figure 7*). The Perceived Financial Knowledge of an individual does not necessarily influence his or her Financial Self-Efficacy. Subjectively claiming to possess Financial Knowledge may not be enough to give one the edge to confidently carry out the activity.

Discussion of findings

Given that the sample for the study was educated people, with over 70 percent of the respondents having acquired tertiary level education and almost

50 percent of them have had some form of financial training, it was expected that financial capacity and skills are improved. This also boosts their confidence in making financial decisions. However, it must be noted that having the capacity and the confidence does not automatically lead to an intention to practice the expected behaviour or the actual behaviour being undertaken. Knowledge in general boosts confidence, and thus when people are equipped with Financial Knowledge, their confidence in financial matters is enhanced (Farrell et al., 2016).

The level of income available to match the financial capacity and confidence that workers appear to have acquired is of great importance. When financial resources are not adequate to meet the basic needs of life, the Financial Knowledge and confidence a worker has may not be relevant. That notwithstanding, a person's income level must not determine whether or not good financial behaviours will be practised. Ideally, regular practice of good financial behaviour is expected to improve a person's financial position and wellbeing. Research into this area of personal finance appears to be inadequate, making empirical discussions limited.

Even though there is statistical evidence to support the observation that Perceived Financial Knowledge is influencing Financial Attitude positively, the confidence of being in possession with the skills and capacity may be lacking. Lacking the capacity and confidence may inhibit the possibility of actual behaviour. That notwithstanding, a positive Financial Attitude can motivate a person to acquire the knowledge and obtain the capacity to achieve results. In controlling for the effect of educational, locational and sex differences, the educational level of respondents exhibited a strong influence on financial self-efficacy, which supports the observation that knowledge actually improves one's skills and confidence and thus improved actual financial knowledge will lead to improved financial self-efficacy. Location and sex differences did not exhibit any influence.

Explanation of Variance in Endogenous Variable

The explained variance in the model's endogenous variables was assessed with the coefficient of determination (R2) to identify the model's predictive power. Firstly, from Table 30, there was a statistically significant weak influence of the exogenous constructs (AFK and PFK) on Financial Attitude (R^2=.099, R^2Adj=.098, $p<0.01$). This means that the exogenous constructs (AFK and PFK) jointly explain 9% of the variation that occurs in Financial Attitude. Other factors of variation in Financial Attitude may include cultural factors like religion, family and socio-economic status (Britt, 2016), future orientation and financial socialization of workers (Bhattacharya & Gill, 2020)

Secondly, it was evident from Table 30 that the exogenous constructs (AFK and PFK) have a weak statistically significant influence on Financial Self-efficacy (R^2=.106, R^2Adj=.105, p=.01). Actual Financial Knowledge and Perceived Financial Knowledge explain 10.6% of the variation in Financial Self-efficacy of formal sector workers. The objective for the hypothesis was to analyse the impact of only financial knowledge on Financial Self-Efficacy even though factors like personality trait (Gist & Mitchell, 1992), level of education, gender (Farrell et al., 2016) and the skills needed may also be considered as the antecedents of Financial Self-Efficacy in formal sector workers,

Effect Sizes (f^2) of Exogenous Variables

The effect sizes of the exogenous constructs' influence on the endogenous variables were assessed with Cohen's (1998) f^2. This examines the contribution of the variables to the predictive power of the model. The results are presented in Table 30.

Actual Financial knowledge (f^2=0.011) had no effect on the model that explains the variance in Financial Attitude. This means that Actual Financial Knowledge has no significant contribution to the predictive power of the model. However, Perceived Financial Knowledge (f^2=0.061) has a small effect size in the model.

With regards to the predictive power of explaining variation in Financial Self-Efficacy, Actual Financial Knowledge (f^2=0.057) had a small effect size. In contrast, Perceived Financial Knowledge (f^2=0.000) had no effective contribution to the predictive power.

Predictive Relevance (Cross-validated Redundancy)

The models' predictive relevance as well as the contribution of the various exogenous constructs to the models' predictive relevance, were assessed. The Q^2 and q^2 were examined to perform the assessment. The results are presented in Table 30.

The model predicting Financial Attitude (Q^2=0.051) had predictive relevance. However, while Perceived Financial Knowledge had a small effect on the predictive relevance, Actual Financial Knowledge had no effect on the predictive relevance; hence it had no contribution to the predictive relevance of the model.

Similarly, the model predicting Financial Self-Efficacy (Q^2=0.054) also had predictive relevance. But in contrast to the first model, Actual Financial Knowledge had a small effect on the predictive relevance, whereas Perceived Financial Knowledge had no effect on the predictive relevance. This means that Perceived Financial Knowledge had no contribution to the model used to predict Financial Self-Efficacy.

Chapter Summary

The findings of the study were that Actual Financial Knowledge appears not to influence financial behaviour directly even though Perceived Financial Knowledge significantly and positively correlated with Actual Financial Behaviour. Further analysis shows that the Perceived Financial Knowledge appears to have an impact marginally on planning/budgeting behaviour compared to savings behaviour. Additionally, the effect of Financial Knowledge, both perceived and actual, exhibited different influences on Financial Attitude and Financial Self-Efficacy.

Thus, workers who perceive to be knowledgeable financially develop positive beliefs about financial behaviour, thereby building a favourable attitude. Even though the person may have a positive attitude towards a financial activity, the confidence that he/she can carry out the task successfully may be lacking. The results thus reflect that perceived knowledge is significantly correlated with Financial Attitude but not Financial Self-Efficacy.

Inversely, Actual Financial Knowledge rather influences Financial Self-Efficacy and not Financial Attitude. When a person objectively possesses Financial Knowledge, his/her confidence in performing a finance-related task is higher. Even though the effect sizes are not so large as found in the study, improved financial knowledge can help improve financial behaviour when other predictive factors are enhanced concurrently. It was, however, expected that Financial Attitude would be affected by actual knowledge, but that was not supported by the findings. It appears that few studies have been conducted in this research area, and such findings could not be discussed alongside existing literature.

CHAPTER SIX

FINANCIAL BEHAVIOUR INTENTION AND ITS DETERMINANTS

Introduction

Financial Behaviour Intention is the estimation of a person's likelihood to undertake a personal finance activity. Thus the readiness of the individual to carry out certain financial behaviour (Fishbein & Ajzen, 2010). Financial Behaviour Intention in this study focused on two areas: financial planning/budgeting and savings behaviour of workers. The respondent's Financial Behaviour Intention was above average, signalling the respondents' readiness to carry out positive financial management practices. Research objective three sought to examine the determinants of Financial Behaviour Intention of formal sector workers.

Sample Base

The same sample size was applied in analysing research objective three. A total of 406 questionnaires were used in the analysis. PLS-SEM algorithms were used in assessing both the outer and inner models.

Theoretical Framework

In applying the Reasoned Action Approach theory, the readiness to engage in certain financial behaviour is based on the Financial Attitude, Financial Self-Efficacy, and Descriptive Norm. In this study, the theory was extended to incorporate Financial Knowledge and Locus of Control. Financial Knowledge was measured both as perceived and actual in order to ascertain their impact separately. The findings are presented subsequently.

Specifying the Outer Model

The constructs of this model were measured with reflective measures. The outer model was therefore assessed using the reflective assessment rubrics. The results are presented (see Appendix E).

Indicator reliability

This study certified indicator reliability of the latent construct measures after the outer loadings were evaluated. Except for few indicators *(SC15, SC21, Loc32, LoC33, DN36, DN39, FBI49, and FBI52)*, all the indicators met the preferred threshold (≥ 0.7). The exceptions, however, met the acceptable threshold (≥ 0.4) Hair et al. (2016). The assessment of outer loading concludes that the indicators used for this model are all reliable as they range between the indicator loadings of 0.589 and 0.833.

Internal consistency reliability

The study further assessed the reliability within the measures of latent constructs with the use of rho_A because it falls within the Cronbach Alpha and the composite reliability (Dijkstra and Henseler, 2015). From the results displayed in Appendix E, composite reliability (CR) ranged between .822 and .895, rho_A ranged between .742 and .980, and Cronbach's alpha (CA) ranged from .698-.872. The results indicate that internal consistency reliability is present in the indicators of all the reflective latent constructs as their rho_As comply with the criterion (>0.7) (Hair, Risher, & Ringle, 2018). This means the indicators reliably measure their constructs. Besides, an assessment of Cronbach's alpha and composite reliability affirms the presence of internal consistency reliability. Consequently, it is concluded that there was adequate internal consistency reliability within the measures in the model.

Convergent validity

To evaluate the convergent validity of reflective constructs' indicators, the average variance extracted (AVE) was examined (Hair et al. 2016). From Appendix E, it is realised that Financial Self Efficacy (.552) Financial Attitude (.632), Locus of Control (.543) Descriptive Norm (.540), Perceived Financial Knowledge (.622), Actual Financial Knowledge (.608) and Financial Behaviour Intention (.548) satisfied the criterion (≥0.5) for convergent validity (Hulland, 1999). Therefore, the convergent validity of the indicators in this model was assured.

Discriminant validity

Subsequently, the study assessed whether the indicators were the true measures for their respective latent constructs through a discriminant validity test. Specifically, the HTMT ratio was computed to perform the evaluation. The lowest and highest values were .546 and .087, respectively; hence they all met the threshold (<0.90) (see Appendix E). This means that indicators for all the constructs achieved discriminant validity (Henseler et al., 2015). Moreover, bootstrapping was performed to assess the significance of the HTMT values. The confidence intervals (CI) generally ranged from 0.0675-0.692, which interprets that the HTMT ratios were all significantly different from 0.900. In a nutshell, there was discriminant validity for all the construct measures.

Outer Model Significance

Finally, Wong's (2013) recommendation that all outer model loadings should be significant at an accepted alpha level was satisfied. The results (see Appendix F) indicate that all T-statistics of the outer model loadings were larger than 1.96, and the p-values were lower than the alpha level (.05). This means that all outer model loadings are statistically significant.

Specifying the inner model

After assessing the outer model of objective three, the study went ahead to assess the inner model. The Assessment procedure conformed to prescriptions by (Hair et al. 2016; Wong, 2013). The results are presented and reported subsequently in tables and a diagram.

Multicollinearity assessment

To ensure the study was void of any multicollinearity among the exogenous constructs, the variance inflation factor (VIF) and tolerance levels were computed and examined. All the constructs have tolerance levels above 0.5 with the least being that of LoC (0.751). Also, all the VIFs were below 2 as the highest was LoC (1.331). This occurred because of the inverse relationship between VIF and tolerance. Thus, the result simply proves that there is no issue of multicollinearity among exogenous or predictor constructs of the structural equation model.

Path coefficient assessment

Six hypotheses of the third objective were subjected to a hypotheses test to check whether there were influences of the exogenous constructs (AFK, DN, FA, FSE, LoC, and PFK) on the endogenous construct (FBI). The hypotheses are listed below:

H3a: Actual Financial Knowledge positively influences Financial Behaviour Intention
H3b: Descriptive Norm positively influences Financial Behaviour Intention
H3c: Financial Attitude positively influences Financial Behaviour Intention
H3d: Financial Self Efficacy positively influences Financial Behaviour Intention
H3e: Locus of Control positively influences Financial Behaviour Intention

H3f: Perceived Financial Knowledge positively influences Financial Behaviour Intention

The findings of the test are presented in Table 31 and Figure 8.

Table 31: Objective Three Inner Model Specification

Hypotheses	Beta (β)	SD	t-stat	p-val.	R^2	f^2	Q^2	q^2	VIF
H3a: AFK -> FBI	0.098	0.045	2.199	0.028	0.343	0.01	0.177	0.00	1.190
H3b: DN -> FBI	0.180	0.041	4.427	0.000	0.343	0.05	0.177	0.02	1.054
H3c: FA -> FBI	0.262	0.054	4.885	0.000	0.343	0.09	0.177	0.04	1.227
H3d: FSE -> FBI	0.000	0.070	0.007	0.994	0.343	0.00	0.177	0.00	1.142
H3e: LoC -> FBI	0.199	0.052	3.811	0.000	0.343	0.05	0.177	0.02	1.331
H3f: PFK -> FBI	0.215	0.053	4.052	0.000	0.343	0.06	0.177	0.02	1.250

Source: Field Survey (2021)

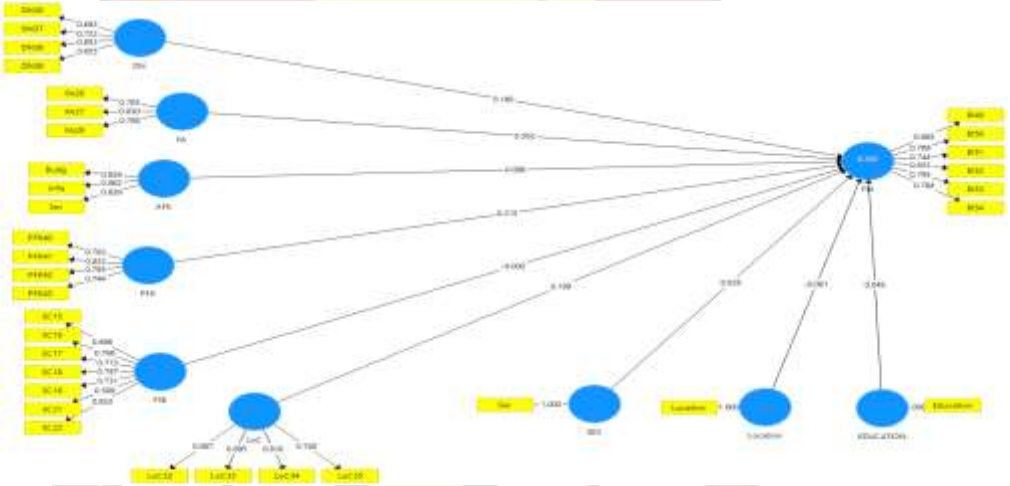

Figure 8: Determinants of Financial Behaviour Intention
Source: Field Survey, Sam (2021)

H3a: Actual Financial Knowledge positively influences Financial Behaviour Intention

The first hypothesis sought to investigate the influence of Actual Financial Knowledge on Financial Behaviour Intention. The result indicates a statistically significant influence of Actual Financial Knowledge on Financial Behaviour Intention (β=.098, p=.028, f^2 =.012; Table 31; Figure 8). The hypothesis was supported even though the effect size was small. This means that Actual Financial Knowledge contribute marginally to the Financial Behaviour Intention an individual is likely to develop.

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H3b: Descriptive Norm positively influences Financial Behaviour Intention

The second hypothesis test revealed a positive statistically significant influence of Descriptive Norm on Financial Behaviour Intention (β=.180, p=0.000, $f^2 = .05$; Table 31; Figure 8). The hypothesis was thus supported. This means that formal sector workers are influenced by the behaviours of their friends, co-workers and other influential personalities in their life.

H3c: Financial Attitude positively influences Financial Behaviour Intention

The finding from Table 31 was consistent with the third hypothesis, and hence the hypothesis was supported. It was evident that Financial Attitude positively influences Financial Behaviour Intention (β=.262, p=0.000, $f^2 = .09$; Table 31; **Error! Reference source not found.**). This means that improving one's Financial Attitude will undoubtedly contribute to an improvement in the individual's Financial Behaviour Intention.

H3d: Financial Self Efficacy positively influences Financial Behaviour Intention

Moreover, the fourth hypothesis of the second objective investigated the influence of Financial Self-Efficacy on Financial Behaviour Intention. The result indicates that Financial Self-Efficacy had no statistically significant influence on Financial Behaviour Intention (β=.000, p=.994, $f^2 = .00$; Table 31; Figure 8). This means that Financial Self-Efficacy has no contribution to the Financial Behaviour Intention formed by an individual.

H3e: Locus of Control positively influences Financial Behaviour Intention

Furthermore, an assessment of the fifth hypothesis in the second objective revealed that Locus of Control had a statistically significant influence on Financial Behaviour Intention (β=.199, p=0.000, $f^2 = .05$; Table

31; Figure 8). The hypothesis was supported. The result suggests that workers with an internal locus of control are likely to develop better Financial Behaviour intentions compared to the workers with external locus of control beliefs

H3f: Perceived Financial Knowledge positively influences Financial Behaviour Intention

Unlike Actual Financial Knowledge, Perceived Financial Knowledge had a statistically significant influence on Financial Behaviour Intention (β=.215, p=0.000, f^2 =*.06*; Table 31; Figure 8). Since the Hypothesis was supported, it can be deduced that an increase in an individual's Perceived Financial Knowledge will improve the Financial Behaviour Intention of that Individual.

Explanation of Target Endogenous Construct Variance

To examine exogenous constructs' collective predictive power on the endogenous construct (FBI), the coefficient of determination (R^2) was examined. The coefficient of determination (R^2), with its significance, was presented in Table 31.

Results from Table 31 suggest that the exogenous variables (AFK, DN, FA, FSE, LoC, and PFK) put together have a statistically significant moderate influence on Financial Behaviour Intention (R^2=0.331, R^2Adj=0.321, p<0.01). This implies that the exogenous variables explain about 33% of the variation in Financial Behaviour Intention. Consequently, about 67% of the variation is explained by other constructs that could either not be controlled or captured by the model. Such constructs may not have been captured due to the delimitation and focus of this study.

Effect Sizes (f2) of Exogenous Variables

Having identified the predictive power (R^2) of the model, the effect sizes of the exogenous constructs on the predictive power (R^2) were examined in conformity to Cohen's (1998) f^2 criterion. It was aimed at examining the contributions of the exogenous constructs to the predictive power of the model. The results are presented in Table 31.

From the results in Table 31, Actual Financial Knowledge (.01) and Financial Self Efficacy (0.00) had no effect on the model's predictive power. This was consistent with the finding in the hypothesis where both constructs had no influence on Financial Behaviour Intention. This means that the two constructs (AFK and FSE) do not contribute to the prediction of Financial Behaviour Intention.

Conversely, Descriptive Norm (0.05), Financial Attitude (0.09), Locus of Control (0.05) and Perceived Financial Knowledge (0.06) all have small effect sizes on the predictive power of the model. It was fascinating to realise that none of the exogenous constructs had neither medium nor large effects sizes even though they collectively have moderate predictive power (R^2). This appears to suggest that the exogenous constructs cannot singularly predict Financial Behaviour Intention. All the exogenous constructs have to be present before Financial Behaviour Intention can be accurately predicted alongside other factors that are not considered in the current study.

Predictive relevance (cross-validated redundancy)

After determining the predictive power of the study, it was imperative to determine whether or not the predictive power was relevant (Stone-Geiser's Q^2 value). Also, the contribution (effect size = q^2) of the various exogenous constructs to the models' predictive relevance were assessed. The results are presented in Table 31.

The structural equation model had predictive relevance (Q^2=0.172) after the blindfolding cross-validated redundancy algorithm was performed. Hair et al. (2019) assert that there is predictive relevance when Q2 is greater than 0.

Further assessment of the exogenous constructs' contribution to the predictive relevance indicates that Actual Financial Knowledge (q^2 =0.00) and Financial Self Efficacy (q^2 =0.00) had no effect on the predictive relevance of the model. This is expected as they do not even contribute to the predictive power of the model.

However, Descriptive Norm (q^2 =0.02), Financial Attitude (q^2 =0.04), Locus of Control (q^2 =0.02), and Perceived Financial Knowledge (q^2 =0.03) had small effects on the predictive relevance. Once again, all the constructs have to be present to render the model's predictive power relevant.

Discussion of findings

From the results, perceived knowledge has shown to impact positively and significantly on Financial Behaviour Intention. This implies that workers who believe to be financially knowledgeable also have intentions to practice good financial behaviours. This finding compares favourably with other studies like Ejigu and Filatie (2020), who found that perceived knowledge influences people's investment intentions. Alternatively, a study by Nguyen et al. (2017) on regular personal saving behaviour also revealed that perceived and Actual Financial Knowledge has a different impact on financial behaviour. Their observation was that saving behaviour was influenced by

Actual Financial Knowledge instead of Perceived Financial Knowledge. Additionally, (2016) also observed that both perceived and Actual Financial Knowledge affects financial behaviour on credit card usage, investment, loans, insurance, and financial advice.

Actual Financial Knowledge did not significantly influence Financial Behaviour Intention as reflected in the results displayed in Table 31. Generally, the expectation was that workers who possess financial knowledge would practice prudent financial behaviours, but it appears that is not the case for our study population. Even though some studies support these findings (Borden, Joyce, & Dawn, 2008; Kholilah & Iramani, 2013; Henager & Mauldin, 2015). Other studies also found that Actual Financial Knowledge impacted financial behaviour positively (Arifin, 2017; Garber & Koyama, 2017; Kadoya & Khan, 2017). The observation from this research could be explained as financially knowledgeable workers probably did not see the need to budget or may have their budget in memory since they have a regular income. Likewise, they may not be saving because of the regular monthly income and the compulsory retirement plan undertaken for them by their employers. That notwithstanding, it is expected that workers budget and save to ensure present and future financial stability for themselves and their families. Arguably, some people also believe that serious budgeting is done when available funds are not adequate to cater for the demands of the person. These are beliefs that need to be corrected to enhance good financial behaviour among the working class in the country.

Financial Attitude is one of the psychological factors that has been observed to influence financial behaviour. Generally, Attitude influence behaviour significantly (Ajzen, 2015; Sniehotta et al., 2014). Financial Attitude has also been shown to influence Financial Behaviour Intention, as observed in this study. The finding implies that formal sector workers who have developed positive Financial Attitudes also develop the intention to carry out good financial behaviour. Especially with savings behaviour, workers frequently save when they have a favourable attitude and the required enabling environment. Studies supporting these findings include (Faique et al., 2017; Sundarasen & Rahman, 2017; Zsótér & Németh, 2017). In the study by Faique et al (2017), attitude was used as a moderator between financial behaviour and Financial Self-Efficacy, resulting in a positive correlation.

The effect size of Financial Attitude in explaining Financial Behaviour Intention seems to be greater compared to the other factors under consideration. Financial Attitude could then be considered as one of the major factors in explaining the financial behaviour intention of the working populace. Additionally, Financial Attitude was seen to be influenced by Financial Knowledge, as shown by the first hypothesis. Impliedly, to improve Financial Behaviour Intention, Financial Attitude of workers must be boosted positively with Financial Knowledge education. Even as Kaiser and Menkhoff (2017) in their studies found that financial education has minimal impact on financial behaviour directly, the current study shows that financial education, which is impacting Financial Knowledge and developing positive financial beliefs, will first improve Financial Attitude and further improve Financial Behaviour Intention alongside other influencing factors.

According to the Reasoned Action Approach Theory, Financial Self-Efficacy was expected to influence Financial Behaviour Intention. It is expected that people who perceive to be financially self-confident will have intentions to practice good financial behaviour. This assertion was not supported by the findings of the current research. Even though there was a positive relationship between Financial Self-Efficacy and Financial Behaviour Intention, the relationship was not significant. This position is not new in the literature, as Faique et al. (2018) observed similar findings.

In contrast, other studies have reported a significant relationship between Financial Self-Efficacy and Financial behaviour directly and indirectly through Financial Attitude (Farrell et al., 2016; Montford & Goldsmith, 2016; Rothwell et al., 2016). Studies that have shown positive and significant relationships, as stated above, considered investment and savings behaviour as the dependent variable. Respondents, however, exhibited an average level of confidence in managing their finances.

To understand workers' financial behaviour, a person's Locus of Control (LoC) over outcomes in life was considered a determinant. The results indicated that truly a person's Locus of Control does have a bearing on their Financial Behaviour Intention. Workers who scored higher on the Locus of Control scale are considered skewed to the internal LoC continuum. The positive correlation between Financial Behaviour Intention and LoC observed in this study affirms the belief that people who have internal LoC believe they can improve their financial well-being and develop intentions to do so. A study by Cobb-clark et al. (2013) also found similar findings but in respect of actual savings behaviour. The finding shows that households with internal LoC reference persons tend to save more towards the future both in terms of levels and as a percentage of their permanent income compared to households with external LoC reference persons.

On the contrary, workers with lower scores and aligned to the external LoC believe that the happenings in their life are beyond their control, including financial situations that they find themselves in. They believe everything is destined to be, and not every situation is within their power to change. Based on their beliefs, they are therefore not motivated to make the extra effort in getting their financial situation better. A Study by Rasyid, et al. (2018) observed similar findings in workers' investment decisions. Very often, workers with external LoC do not save a higher percentage of their permanent income and at a more frequent interval as compared with people who exhibit beliefs of an internal LoC.

Additionally, workers are motivated by friends, relatives, and some important personalities to take certain actions. According to Fishbein and Ajzen (2010), people are motivated to do what friends are seen doing. This is termed the Descriptive Norm. The result indicates that there is a positive relationship between Descriptive Norm and Financial Behaviour Intention. This implies that workers who have friends, relatives and important personalities practising good financial behaviour have a higher probability of developing good Financial Behaviour Intention. Thus, they are more likely to observe financial discipline and ensure financial stability. The findings conform to the position of the theory as posited by Fishbein and Ajzen (2010).

The fact that the Income level of workers may not play a direct role in forming Financial Behaviour Intentions (Arifin, 2017; Grable et al., 2009), income level may be seen to play a motivational role subtly in building up the main antecedents of Financial Behaviour Intention of workers. An instance is where a household of four persons earn below GH₵500 monthly. Meeting the family's needs with such a limited amount will make it practically impossible to save and demotivating enough to entertain the intention to save. Even when workers have the knowledge that friends, family and important personalities (Descriptive Norm) are saving regularly and thus they are expected to develop such behaviour intention, the existing limitation may nullify the influence that Descriptive Norm is expected to have on the Financial Behaviour Intention of such workers. The impact of income is discussed extensively in chapter seven.

Chapter Summary

The findings of the study were discussed in the light of underlying theories and empirical results available. The research findings upheld the tenets of the Reason Action Approach theory with the exception of the perceived control construct, which was measured as Financial Self-Efficacy in the current study. Actual Financial Knowledge, Perceived Financial Knowledge, Financial Attitude, Descriptive Norms and Locus of Control exhibited influence on workers' Financial Behaviour Intention with Financial Attitude and Actual financial Knowledge showing the highest and the least impact respectively. Financial Self-Efficacy did not establish a significant effect on workers' financial behaviour.

Generally, the findings point to the fact that workers' intention to practice financial planning/budgeting and savings may depend on the positive Financial Attitude developed towards that activity, behaviours exhibited by friends, family, and important personalities around them, beliefs about fate and happenings in life, and the level of subjective Financial Knowledge a person is in possession with.

CHAPTER SEVEN

THE RELATIONSHIP BETWEEN FINANCIAL BEHAVIOUR INTENTIONS AND ACTUAL FINANCIAL BEHAVIOURS

Introduction

The fourth objective of the study was focused on examining whether Age of respondents, Family Support status and Income level moderate the relationships between Financial Behaviour Intention and Actual Financial Behaviour. To better understand the phenomenon, the study also analysed the moderating effects of Age, Family Support and Income level on "savings intention and savings behaviour" as well as "planning/budgeting intention and planning/budgeting behaviour".

Sample Base

A sample of 406 questionnaires was used in the analysis with PLS-SEM algorithms as the analytical tool for the analysis. The outer and inner models were all assessed with PLS-SEM.

Theoretical Framework

The fourth objective is underpinned by the main theory being the reasoned action approach and moderated by the life cycle hypothesis and the cushion hypothesis. From the life cycle hypothesis, variables such as age and income level were used as moderators, whiles the use of Family Support as a moderator was inspired by the cushion hypothesis.

Actual Financial Behaviour has been conceptualized as the financial behaviour practices being undertaken by workers currently or at least within the last three months. The Actual Financial Behaviour centred on activities related to planning and budgeting, and savings behaviour of formal sector workers. The overall mean of Actual Financial Behaviour was slightly above average (3.24), meaning workers are practising good financial behaviour to a certain level. The activity with the least mean of 2.64 is in the area of savings, “I have been saving part of my income every month at least for the last 3months”. This is a great concern since saving is the first step to financial stability and wellness for both individuals and families. Research has shown that households who do not save regularly often encounter financial problems and disorders (Davidson & Silva, 2013; Koomson et al., 2016; Lusardi et al., 2011).

Even though the intention to save part of their income recorded an average mean of 3.91, the actual behaviour of saving part of the income recorded an average mean of 2.64. This shows that workers may have the intention to practice good financial behaviour, but actual control factors may inhibit this intention from materializing. This brings to the fore the assertion that not all intentions are acted upon (Ajzen, 1985). Thus, the study examined the moderating effects of income level, age and, Family Support on the relationship between Financial Behaviour Intention and Actual Financial Behaviour. Based on the life cycle hypothesis by Franco Modigliani, the young are expected to save and accumulate wealth so that when they retire or cannot work, they will deplete the accumulated funds to spend. The theory also asserts that the very young have little wealth, the middle-aged have more and this rise to the peak just before they retire. Retirees offload their wealth gradually to cater for their needs as they live through their golden years (Bloom et al., 2003; Capéau & De Rock, 2015).

The cushion hypothesis by Hofstede (2011) also posits that the collectivism and individualism nature of society impact the financial decisions of people. Thus, people with the assurance that they can gain support in times of difficulty may not be motivated to take steps in practising good financial behaviour like financial planning/budgeting and savings compared to those who are certain help may not come when the need arises.

The financial intention from Table 32 has been shown to influence the Actual Financial Behaviour of formal sector workers significantly. Financial intention thus explains 29.9 percent of the variation in Actual Financial Behaviour. The findings correspond with the position of the theory of reasoned Action Approach and empirical findings observed by other researchers, especially within the health sector (Fishbein & Ajzen, 2010; Magendans, Gutteling, & Zebel, 2017; Wiedemann et al., 2009).

Specifying the Outer Model

The outer model was assessed with the same rubrics used for estimating reflective models. However, the moderator constructs (Income, Age and Family Supports) were single construct items that did not need to be assessed. The results were presented (see Appendix G).

Indicator Reliability

The indicator reliability was assessed with the outer loading. It was identified that all the indicators do meet the acceptable threshold of 0.4 (see Appendix G). The least outer loading among the various models was 0.665 (Pl_Bdg72) in the *H3e* hypothesis. Also, most of the indicators met the preferred threshold of 0.7. This result shows that the various models of the fourth objective had reliable indicators that measured the constructs. Income

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level, Age, and Family Support, being single-item constructs, did not go through the scrutiny for reflective measures.

Internal consistency reliability

Chronbach's Alpha, rho_A and composite reliability were observed to assess the internal consistency reliability of the various measures of the study. It was revealed that all the measures had internal consistency reliability as rho_A ranged from 0.714 to 0.757 across the modelled hypotheses. Rho_A, falling, between Cronbach's alpha and composite reliability gave a more accurate assessment of internal consistency reliability of the measures.

Convergent Validity

The average variance extracted (AVE) was used to assess the convergent validity of the indicators in all the models. The results (see Appendix H) indicated that all the measures had convergent validity as they all exceeded the threshold of 0.5 and ranged between 0.530 and 0.670. This means that the constructs could explain more than 50% variations in the indicators used in the various models.

Discriminant Validity

The HTMT ratios were used to check how indicators discriminately measured their respective constructs. None of the HTMT ratios exceeded the threshold of 0.9. A further assessment of the confidence intervals (CI) showed how significant the ratios were. Across all the measures, the least lower-limit CI was 0.015, whereas the highest upper-limit CI was 0.751 (see Appendix H). These findings suggested that the discriminant validity of indicators significantly existed in the models.

Outer Model Significance

The results (see Appendix J) indicate that all T-statistics of the outer model loadings were larger than 1.96, and the p-values were lower than the alpha level (.05). This means that all outer model loadings are statistically significant.

Specifying the Inner Model

To assess the moderating effects of the various moderating hypotheses, the path multicollinearity and the path coefficient were assessed together with their significance levels. The results were presented in Table 32 and Table 33.

Multicollinearity Assessment

The exogenous variables in the various models of the fourth objective were assessed with the Tolerance and VIF values. The results (see Appendix I) had all the VIFs to be lesser than the threshold of 5, whereas none of the tolerance values fell below the threshold of 0.20. The results indicate that across all the models, there was no problem of multicollinearity.

Explanation of Variance in Endogenous Variable

The explained variances of Actual Financial Behaviour, Planning/Budgeting Behaviour and Savings Behaviour by their respective exogenous constructs (Financial Behaviour Intention, planning/Budgeting Intention and Savings Intention) were assessed with the coefficient of determination (R^2 and R^2Adj).

Table 32: Objective Four Coefficient of Determination

Endogenous Variable	R^2	Assessment	P-Value
Actual Financial Behaviour	.300	Moderate	.000
Planning/Budgeting Behaviour	.226	Weak	.000
Savings Behaviour	.139	Weak	.000

Source: Field Survey (2021)

The results presented in Table 32 shows the variance explained by the exogenous construct of each endogenous construct. First of all, Financial Behaviour Intention significantly and moderately explains variations in the Actual Financial Behaviour of respondents (R^2=.300, R^2Adj=.299, p<.001). This meant that FBI explains about 30 percent variations in AFB. Further analysis of the Planning/Budgeting Intention and Planning/Budgeting Behaviour nexus was done. The results show that PBI weakly but significantly explains about 22.6 percent variations in PBB (R^2=.226, R^2Adj=.224, p<.001). This means that PBI accounts for 22.6 percent variations in PBB. Finally, results from Table 19 shows that Savings Intention weakly explains variations in Savings Behaviour (R^2=.139, R^2Adj=.137, p<.001). This suggests that SI explains 13.9 percent variations in the SB of formal sector workers.

Path Coefficient Assessment

In objective four, nine hypotheses (*H4a, H4b, H4c, H4d, H4e, H4f, H4g H4h, and H4i*) were tested to check for the moderating effects of Income level, Age and Family Support on the nexuses between Financial Behaviour Intentions and Actual Financial Behaviour, Planning/Budgeting Intention and Planning/Budgeting Behaviour as well as Savings Intention and Savings Behaviour. The findings of the test are presented in Table 20 and subsequent Figures.

Table 33: Hypotheses Tests of Moderating Effects

Hypotheses		Beta (β)	T Stat	P Values
H4a	FBI -> AFB	.531	14.298	.000
	Age -> AFB	.014	.339	.735
	FBI*Age -> AFB	.077	1.771	.077
H4b	PBI -> PBB	.473	11.859	.000
	Age -> PBB	-.009	.195	.846
	PBI*Age -> PBB	.066	1.304	.193
H4c	SBI -> SB	.378	8.382	.000
	Age -> SB	.039	.727	.467
	SI*Age -> SB	.079	1.501	.134
H4d	FBI -> AFB	.522	14.015	.000
	FSupport -> AFB	-.116	2.910	.004
	FBI* FSupport -> AFB	-.093	2.318	.021
H4e	PBI -> PBB	.468	11.618	.000
	FSupport -> PBB	-.098	2.174	.030
	PBI*FSupport -> PBB	-.065	1.406	.160
H4f	SI -> SB	.363	8.686	.000
	FSupport -> SB	-.076	1.673	.095
	SI*FSupport -> SB	-.098	2.088	.037
H4g	FBI -> AFB	.557	16.004	.000
	Income -> AFB	-.028	.622	.534
	FBI* Income -> AFB	.167	3.759	.000
H4h	SI -> SB	.397	9.231	.000
	Income -> SB	.088	1.814	.070
	SI*Income -> SB	.191	4.104	.000
H4i	PBI -> PBB	.504	12.305	.000
	Income ->PBB	-.090	1.893	.059
	PBI*Income -> PBB	.150	3.105	.002

Source: Field Survey (2021)

H4a: Age moderates the relationship between Financial Behaviour Intention and Actual Financial Behaviour.

The first hypothesis examined the moderating effect of age on the nexus between Financial Behaviour Intention and Actual Financial Behaviour. First of all, the finding from Table 33 and Figure 9 revealed that Financial Behaviour Intention positively and significantly influenced the Actual Financial Behaviour of formal sector workers (β=.531, P=.001). Also, Age (β=.014, P=.735) had no statistically significant influence on Actual Financial Behaviour. Consequently, Age had no statistically significant moderating effect on the relationship between Financial Behaviour Intention and Actual Financial Behaviour (β=.077, P=.077). The hypothesis was not supported. This means that the influence of Financial Behaviour Intention on Actual Financial Behaviour does not vary across age differences of formal sector workers. To gain an in-depth understanding of this finding, the next two hypotheses were examined.

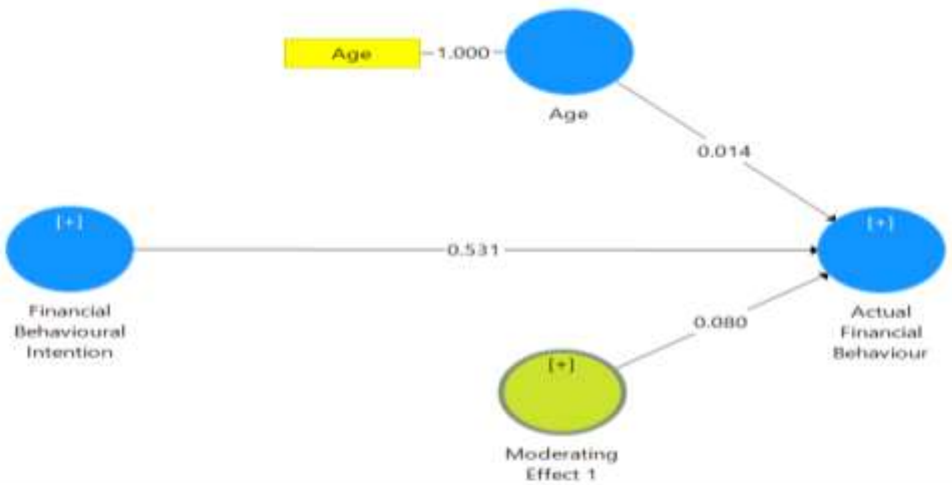

Figure 9: Age as a moderator between Financial Behaviour Intention and Actual Financial Behaviour
Source: Field Survey, Sam (2021)

H4b: Age moderates the relationship between Planning/Budgeting Intention and Planning/Budgeting Behaviour

This hypothesis explored the moderating effect of age on the relationship between PBI and PBB. Consistent with the first model in objective four, the results (Table 33; Figure 10) showed that Planning/Budgeting Intention had a positive and significant influence on Planning/Budgeting Behaviour (β=.473, p=.001). The results revealed that Age had no statistically significant relationship on PBB (β=-.009, P=.846). Besides, Age (β=.066, p=.193) does not have a statistically significant moderating effect on the simple relationship between PBI and PBB. This means that how old or young a person is does not necessarily affect the relation between his or her Planning/Budgeting Intention and Planning/Budgeting Behaviour.

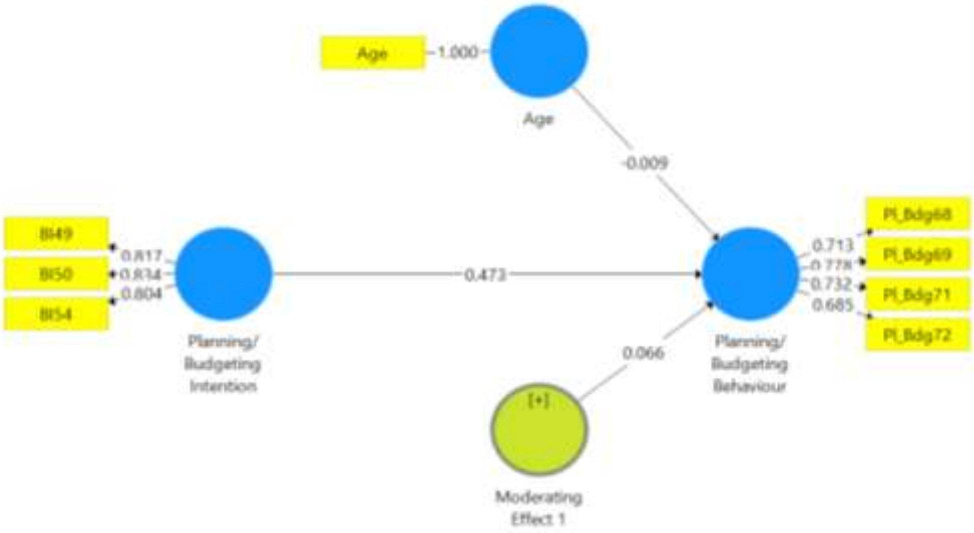
Age
1.000
Age
-0.009
BI49
BI50
BI54
0.817
0.834
0.804
0.473
Planning/ Budgeting Intention
0.713
0.778
0.732
0.685
Pl_Bdg68
Pl_Bdg69
Pl_Bdg71
Pl_Bdg72
0.066
Planning/ Budgeting Behaviour
[+]
Moderating Effect 1

Figure 10: Age as a moderator between PBI and PBB
Source: Field Survey, Sam (2021)

H4c: Age moderates the relationship between Savings Intention and Savings Behaviour

This hypothesis also addressed the moderating effect of age on the relationship between Savings Intention and Savings Behaviour. The results (Table 33; Figure 11) show that Saving Intention has a positive and significant simple effect (β=.378, p=.001) on Savings Behaviour. This conformed to the findings in the preceding models of objective four. While Age, on its own, does not affect (β= .039, p=.467) savings behaviour, it also has no significant moderating effect (β=.079, p=.134) on the relationship between Savings Intention and Savings Behaviour. The hypothesis was therefore not supported. This means that regardless of one's age, the relationship between his/her Savings Intention and Savings Behaviour remains the same.

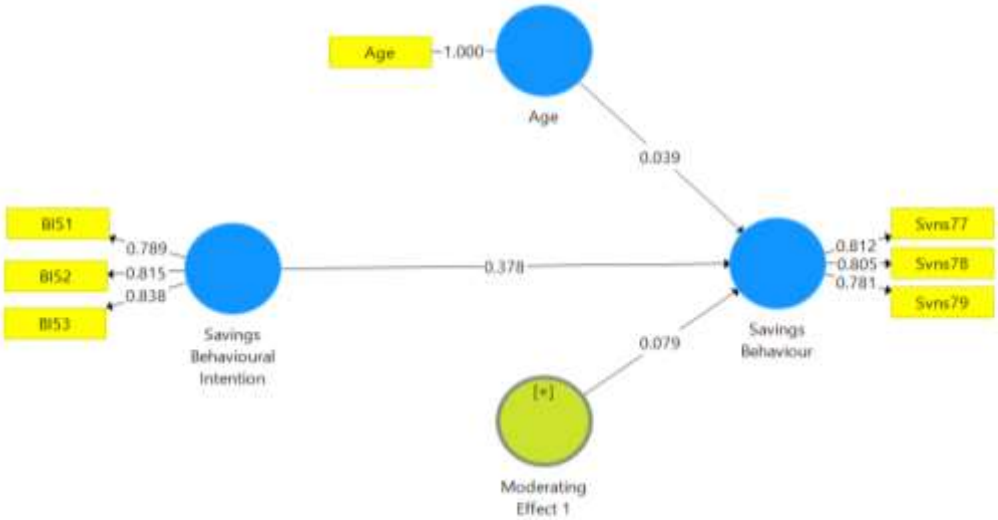
Age
1.000
Age
0.039
BI51
BI52
BI53
0.789
0.815
0.838
Savings Behavioural Intention
0.378
Savings Behaviour
0.812
0.805
0.781
Svns77
Svns78
Svns79
0.079
[+]
Moderating Effect 1

Figure 11: Age as a moderator between SI and SB
Source: Field Survey, Sam (2021)

Inferring from the life-cycle hypothesis (LCH), workers were expected to save more towards retirement as they grew older and earned more income. Age was expected to positively moderate the intention-Actual Financial Behaviour relationship such that as a person grows older and earn a higher income, savings towards retirement will increase. Even though the correlation observed was positive, it was not significant. The implication is that people do not necessarily increase their savings as they grow. Even those who have the intention to practice good financial behaviour like planning and budgeting, savings still are not influenced to actualize their intentions because of their age. An increase in Income level in itself did not influence good financial behaviour, and thus the findings of this study did not support the tenets of the LCH. This contradicts the findings of Hong et al. (2002) as they observed that households headed by people aged above forty (40 years) save less compared to those between the ages of 30-39 years.

Grinstein-Weiss et al. (2015) also found that given the same dosage of financial education, people aged 35 years and below save less compared to those above 35years. Studies have found other factors like life expectancy (Bloom et al., 2003), employment status (Friedline & Nam, 2014), cultural norms and social institutions (Goedecke, Guérin, D'Espallier, & Venkatasubramanian, 2018) and financial innovations (Ansong, Marfo-Yiadom, & Ekow-Asmah, 2011) to influence savings behaviour of people. The findings of the current study may be as a result of the respondents involved. The fact that formal sector workers have relatively stable and secured source of income that they expect to earn all through their working years may be a contributing factor.

H4d: Family Support moderates the relationship between Financial Behaviour Intention and Actual Financial Behaviour.

The fourth hypothesis of this objective examined the moderating effect of Family Support on the relationship between Financial Behaviour Intention and Actual Financial Behaviour. From Table 33 and Figure 12, as established initially, FBI significantly influences AFB (β=.522 p=.001). The result further shows that Family Support (β=-.116, p=.004) had a significant and negative influence on the Actual Financial Behaviour of workers. It was also revealed that Family Support negatively moderates the relationship between FBI and AFB (β=-.093, p=.021). This means that a unit increase in Family Support will reduce the relationship between FBI and AFB to .429 (i.e., .522-.093). This finding suggests that when people anticipate that they will receive financial support from their family during financial challenges, the probability of carrying out their good financial intentions when performing their financial activities significantly reduces. Subsequent hypotheses give a clearer perspective on this finding.

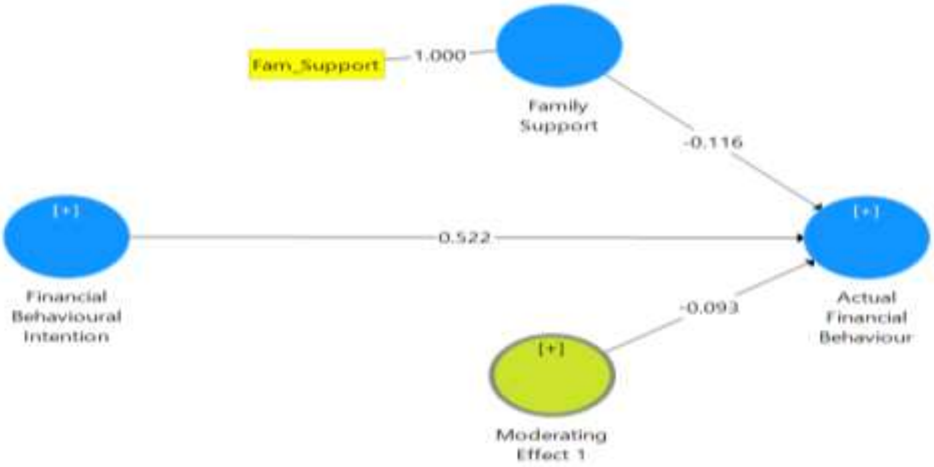

Figure 12: Family Support as a moderator between FBI and AFB
Source: Field Survey, Sam (2021)

H4e: Family Support moderates the relationship between Planning/Budgeting Intention and Planning/ Budgeting Behaviour

The fifth model in the fourth objective of this study focused on the moderating effect of Family Support on the relationship between Planning/Budgeting Intention and Planning/Budgeting Behaviour. The result (Table 33; Figure 13) affirms that there was a positive and significant simple effect of PBI on PBB (β=.468, p=.000). Unlike Age, Family Support had a negative effect (β=-.098, p=.030) on an individual's Planning/Budgeting Behaviour. This means that higher levels of Family Support will lead to lower Planning/Budgeting Behaviour. However, the results do not support the hypothesis as Family Support (β=-.065, p=.160) does not significantly moderate the simple effect of Planning/Budgeting Intentions on Planning/Budgeting Behaviour.

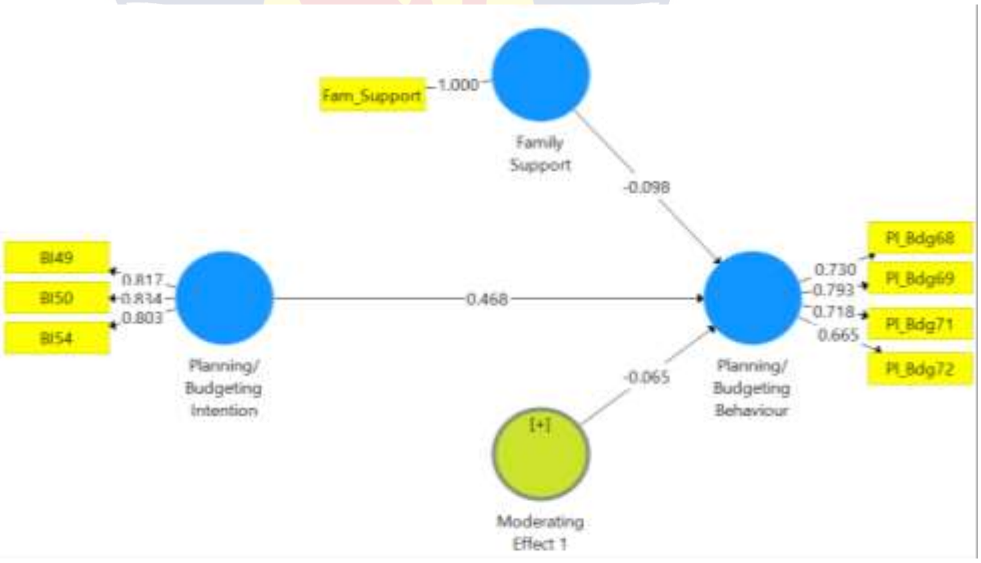
Fam_Support
1.000
Family Support
-0.098
BI49
BI50
BI54
0.817
0.834
0.803
Planning/ Budgeting Intention
0.468
Planning/ Budgeting Behaviour
0.730
0.793
0.718
0.665
PI_Bdg68
PI_Bdg69
PI_Bdg71
PI_Bdg72
-0.065
[+]
Moderating Effect 1

Figure 13: Family Support as a moderator between PBI and PBB
Source: Field Survey, Sam (2021)

H4f: Family Support moderates the relationship between Savings Intention and Savings Behaviour

This hypothesis investigated the moderating effect of Family Support on the relationship between Savings Intention and Savings Behaviour. The results (Table 33; Figure 14) revealed that Savings Intention has a positive and significant simple effect (β=.363, p=.001) on Savings Behaviour. This is an affirmation of the findings that the FBI influences AFB. Family Support did not have a significant effect (β=-.076, p=.095) on savings behaviour. This suggested that whether or not people receive support from family does not necessarily affect their Savings Behaviour. However, Family Support had a significant negative moderating effect (β=-.098 p=.037) on the relationship between Savings Intention and Savings Behaviour. This means that a unit increase in Family Support is likely to reduce the effect of Savings Intention on savings behaviour to .265 (i.e., .363 - .098). The hypothesis was supported; thus, Family Support weakens the relationship. It may be explained that when people have financial support, they do not become disciplined enough to save.

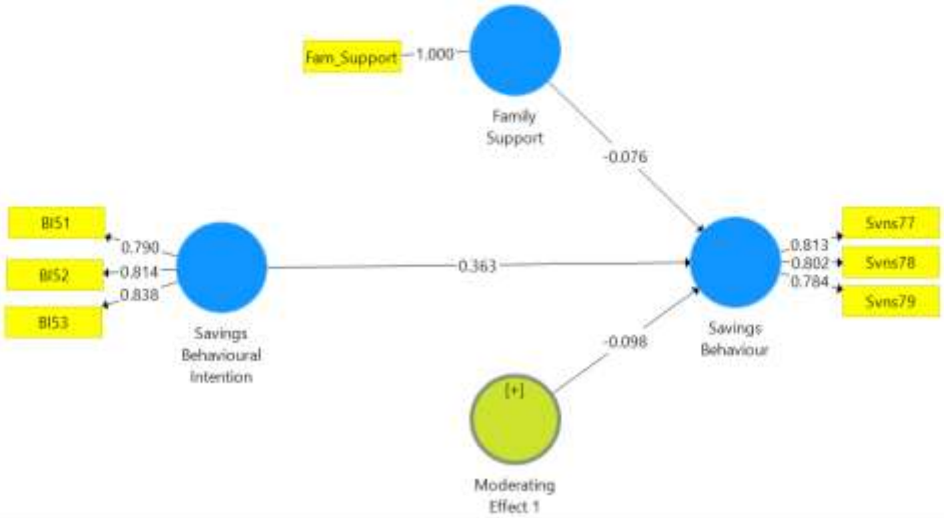
Fam_Support
1.000
Family Support
-0.076
BIS1
BIS2
BIS3
0.790
0.814
0.838
Savings Behavioural Intention
0.363
Svns77
Svns78
Svns79
0.813
0.802
0.784
Savings Behaviour
-0.098
[+]
Moderating Effect 1

Figure 14: Family Support as a moderator between SI and SB
Source: Field Survey, Sam (2021)

The findings of the study support the tenets of the cushion hypothesis by Hsee, & Weber, (1998) and subsequently Hofstede, (2011). According to Hofstede (2011), collectivist and individualistic cultural backgrounds influence people in their financial decisions. The inverse relationship observed from Table 19 means that the higher the assurance of financial support from family in times of need, the less attention workers give to personal financial behaviour. Workers who believed that they could have financial support in times of need were found to be paying less attention to good financial behaviour practices like saving and planning/budgeting. In contrast, those who could not assure themselves of financial support from family made much more effort in managing their finances well to reduce the occurrence of financial challenges.

The results also showed that financial support from spouses ranked highest. Workers with spouses who are financially supporting appear to give less priority to personal finance management. Even though the intention to practice good financial behaviour is there, the zeal to materialize such thoughts is lacking as compared to persons who do not have such assurance of financial support from families. Further analysis shows that when financial behaviour is disintegrated into savings and planning/ budgeting behaviour, Family Support as a moderator exhibits an inverse correlation with actual savings behaviour and not planning and budgeting behaviour. This confirms that workers do not often save when they have the assurance of financial support from their families.

Even as the findings of this research appear to be new in the literature, it seeks to expand the works of Hsee & Weber (1998), which considered the risk perception of people from both the collectivist and individualist perspectives primarily.

H4g: Income level moderates the relationship between Financial Behaviour Intention and Actual Financial Behaviour

The study further assessed the moderating effect of income level on the relationship between Financial Behaviour Intention and Actual Financial Behaviour. Consistent with findings in other models, the results show that the FBI significantly and positively influence the AFB of workers (β=.557, p=.001; Table 33, Figure 15). The study revealed that Income had a negative influence (β=-.028, p=.534) on Actual Financial Behaviour, but this finding was not significant. There was a positively significant moderating effect of Income on the nexus between Financial Behaviour Intention and Actual Financial Behaviour (β=.167, p=.001). This supported the hypothesis that a unit increase in a worker's income will strengthen the relationship between FBI and AFB (i.e., 0.557 + 0.167=.724). Subsequent hypotheses gave a detailed perspective to this finding.

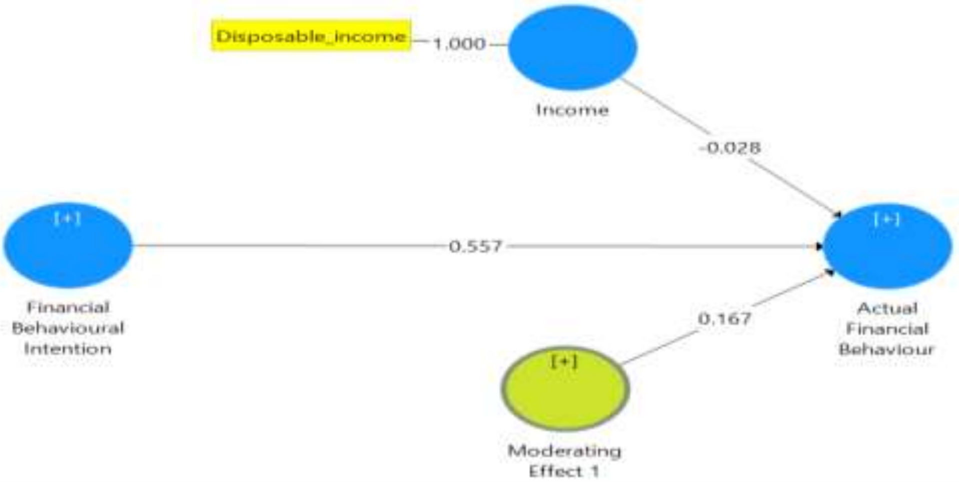

Figure 15: Income as a moderator between FBI and AFB
Source: Field Survey, Sam (2021)

***H4h: Income level moderates the relationship between Planning/Budgeting Intention and Planning/Budgeting Behaviour*.**

This hypothesis in objective three investigated the moderating effect of income on the nexus between Planning/Budgeting Intention (PBI) and Planning/Budgeting behaviour (PBB). The results (Table 33; Figure 16) indicates that the Planning/Budgeting intention has a positive and significant simple effect on Planning/Budgeting behaviour (β=.504, p=.001). This means that a good Planning/Budgeting intention will lead to sound planning and budgeting behaviour. Also, the results indicate that Income, on its own, does not have a significant effect on planning and budgeting behaviour (β=-.09, p=.059). However, the hypothesis is supported as income (β=.150, p=.002) positively moderates the relationship between Planning/budgeting intention and planning/budgeting behaviour. This means that a unit increase in income level will improve the simple effect of PBB to .654 *(i.e., 0.504+0.150*).

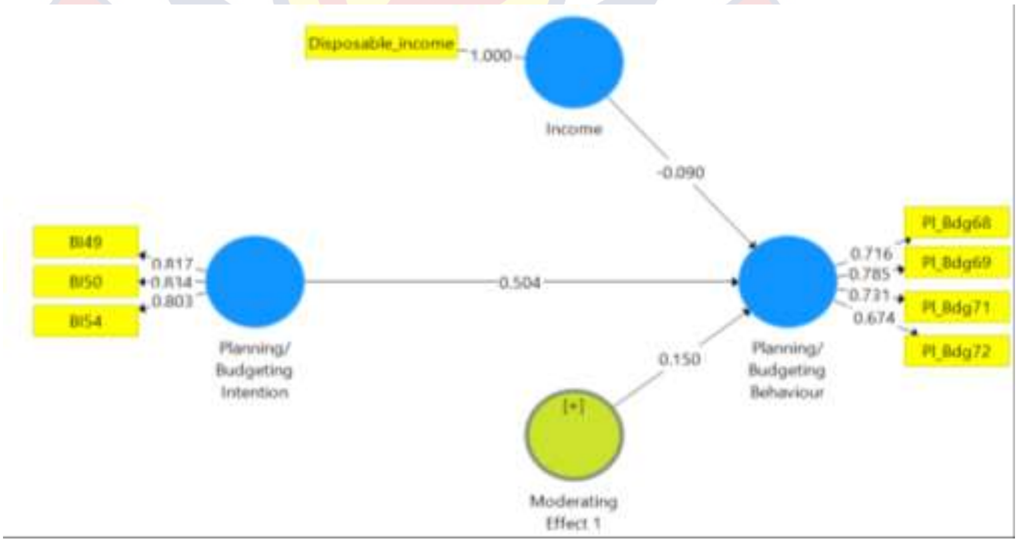
Disposable_income
1.000
Income
-0.090
BI49
BI50
BI54
0.817
0.814
0.803
Planning/ Budgeting Intention
0.504
0.150
[+]
Moderating Effect 1
Planning/ Budgeting Behaviour
0.716
0.785
0.731
0.674
Pl_Bdg68
Pl_Bdg69
Pl_Bdg71
Pl_Bdg72

Figure 16: Income as a moderator between PBI and PBB
Source: Field Survey, Sam (2021)

H4i: Income level moderates the relationship between Savings Intention and Savings Behaviour

The third objective's final hypothesis investigated the moderating role of income on the relationship between Savings Intention and Savings Behaviour. The results (Table 33, Figure 17) showed that Savings Intention Positively affects (β=.397, P=.001) Savings behaviour. This means that the higher one’s savings intentions, the more that individual actually put up savings behaviour. Income had no statistically significant direct effect (β=.088, p=.070) on savings behaviour. Income, however, positively moderated (β=.191, p=.000) the relationship between Savings Intention and Savings behaviour. The hypothesis was supported, and this means that a unit increase in one’s income level will increase the effect of Savings intention on Savings Behaviour to .588 (i.e., 0.397+0.191). Therefore, if one has the intention to save, the intention would be more effective on savings behaviour if there is a higher level of income.

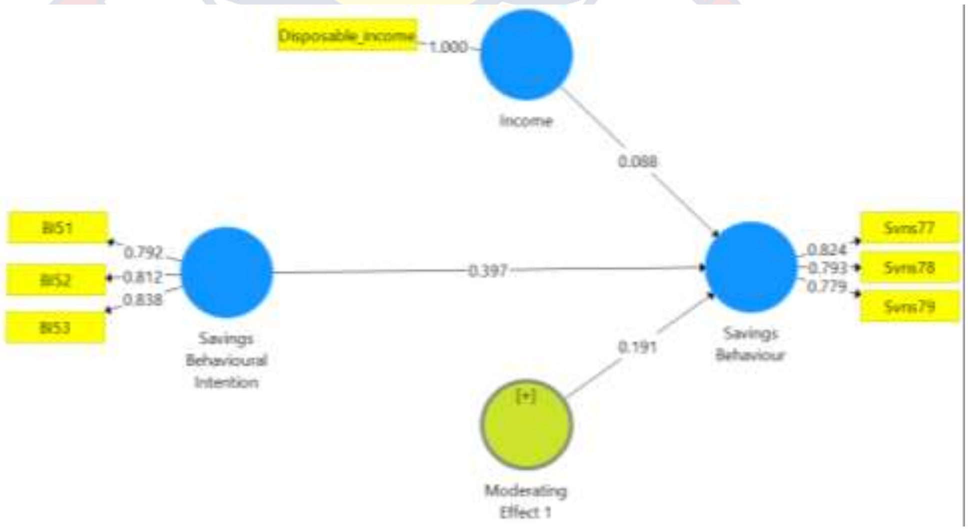
Disposable_income
1.000
Income
0.088
BIS1
BIS2
BIS3
0.792
0.812
0.838
Savings Behavioural Intention
0.397
0.824
0.793
0.779
Svns77
Svns78
Svns79
Savings Behaviour
0.191
[+]
Moderating Effect 1

Figure 17: Income as a moderator between SI and SB
Source: Field Survey, Sam (2021)

The income level of respondents exhibited a negative correlation with Actual Financial Behaviour as depicted in Table 32. This implies that the higher the worker's income, the less attention he/she pays to proper financial management practices. This relationship was, however, not significant. Conversely, Income level positively moderated the relationship between Actual Financial Behaviour and Financial Behaviour Intention significantly. The impact is significant, with a moderating effect of .173. This shows that the direct effect is .568 while the simple effect is (0.564+0.173) .737. Workers who have already developed a positive intention towards proper financial behaviour actually carry out such behaviour when income level increases.

The result of the study does not support a direct effect of income on financial behaviour intention. This implies that workers' income, either high or low, may not significantly affect their financial behaviour. Additionally, the result showed a very low negative correlation (.009), signalling that workers with higher Income rather do not pay much attention to financial planning, budgeting, and probably savings even though the correlation was not significant. The findings are consistent with studies by (Arifin, 2017; Kholilah & Iramani, 2013; Grable et al., 2009). However, the findings contrast with the studies of Hong et al. (2002); Perry & Morris (2006), where income was seen to have a positive relationship with financial behaviour.

Where income is used as a moderator between the intention-Actual Financial Behaviour relationship, the result indicates a significant positive correlation (.173). This means the higher the income, the higher probability that a worker will put to practice the Financial Behaviour Intentions developed. Workers who have intentions to practice financial planning, budgeting, savings, paying bills on time will actually carry out those behaviours when income increases. The result supports the reasoned action theory by Fisbein and Ajzen (2010), which posits that there are actual control factors that moderate the relationship between behavioural intention and the actual behaviour process. According to Ajzen (1985) 'not all intentions are acted' due to some of these control factors.

The income level of respondents has shown to moderate the intention-Actual Financial Behaviour relationship of savings and planning and budgeting separately. Higher-income levels have shown to positively improve both the rate at which workers who have developed a positive intention to save will actually save and carry out proper financial planning.

Chapter Summary

Theoretically, the research findings confirmed the assertion that not all intentions are acted on as posited by the reasoned action approach. The positions of the life cycle and cushion hypotheses were also upheld except for the age of respondents. Respondent's age did not significantly cause variation in Actual Financial Behaviour. Thus, the level of income earned by workers and the assurance of financial support from family are likely to influence the financial behaviour of formal sector workers.

CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The study sought to examine the antecedents of the personal finance behaviour of workers within the formal sector. The study's specific objectives were first to assess the relationship between Financial Knowledge and Actual Financial Behaviour, second to explain the influence of Financial Knowledge on Financial Attitude and Financial Self-Efficacy. The third objective was to examine the effect of Financial Knowledge, Financial Attitude, Locus of Control, Financial Self-Efficacy and Descriptive Norm on Financial Behaviour Intention and finally to assess the influence of Family Support, Income levels and Age on the relationship between Financial Behaviour Intention and Actual financial behaviour.

The study employed a quantitative research method relying on primary data collected through questionnaires from formal sector workers within the Accra Metropolis, KEEA Municipal and Twifo Ati-Mokwa District. Data were analysed using PLS-SEM and SPSS.

This is the concluding chapter of the report. The chapter is divided into four sections. The first section summarizes the findings of the study in line with the research objectives. This is followed by the conclusions drawn and the contributions of the study towards knowledge building. The recommendations section follows after that and ends with suggestions for further research.

Summary of findings

The financial knowledge of respondents on Financial planning/Budgeting and Savings was found to be average. Data available shows overconfidence as respondents' Perceived Financial Knowledge was higher than the Actual Financial Knowledge recorded. More than 50 percent of respondents reported high Perceived Financial Knowledge as against 18.5 percent of respondents obtaining high Actual Financial Knowledge score. Even though initial analysis showed that private-sector workers and workers within the Accra Metropolis exhibited higher financial knowledge than public sector workers and workers from other localities of the survey, further rigorous analysis did not sustain this observation.

Respondents' performance in terms of Financial Attitude, Financial Self-Efficacy, Locus of Control and Financial Behaviour Intention were above average except for Descriptive Norm (average mean of 2.42) and Actual Financial Behaviour. Actual Financial Behaviour results showed that 31.5 percent, 50 percent and 18.5 percent of respondents had insufficient, average and high financial knowledge, respectively.

Gender disparity was not established in all tested variables even though females appear to rank higher in terms of Financial Self-Efficacy and skewed more to the internal side of the Locus of Control continuum.

The first objective was to establish a relationship between Financial Knowledge (both perceived and actual) and Actual Financial Behaviour. The findings of the study revealed that Perceived Financial Knowledge influences Actual Financial Behaviour whilst Actual Financial Knowledge does not significantly influence Actual Financial Behaviour. Additionally, the findings remain the same when financial behaviour is disintegrated into financial planning/budgeting and savings behaviour. This may be as a result of the notion held by workers, especially the professionals within the finance and accountancy fraternity, that the Financial Knowledge acquired is meant for corporate work and not to manage personal finances.

The second objective was to explain the influence of Financial Knowledge on Financial Attitude and Financial Self-Efficacy. The results indicate that Perceived and Actual Financial Knowledge possessed by workers have a different effect on their Financial Attitude and Self-Efficacy. Perceived knowledge appears to influence the Financial Attitude of workers, whilst Actual Financial Knowledge does influence the Financial Self-Efficacy of workers. People perceive to have more financial knowledge than they actually have, which may lead to overconfidence. However, being confident in terms of finance-related issues does not necessarily lead to practising prudent financial behaviours.

Additionally, the third objective of the study was to examine the effect of Financial Knowledge, Financial Attitude, Locus of Control, Financial Self-Efficacy and Descriptive Norm on Financial Behaviour Intention. The results revealed that a worker’s intention to carry out financial planning/ budgeting and savings are influenced partly by the person’s Actual Financial Knowledge, Perceived Financial Knowledge, Financial Attitude, Locus of Control, and Descriptive Norm. Financial Self-Efficacy did not significantly influence Financial Behaviour Intention. Financial Attitude recorded the most significant influence on Financial Behaviour Intention among the six variables tested even though the effect sizes were generally small to medium for each variable.

The five variables put together explains about 34 percent variations in the financial behaviour intention of formal sector workers. Educational, Locational and Sex differences among respondents were used as control variables. The initial effect observed was not changed after introducing the controls, however, the educational difference appears to have a significant relationship with the financial self-efficacy of workers.

Lastly, the fourth objective assessed the influence of Family Support, Income levels and Age on the relationship between Financial Behaviour Intention and Actual financial behaviour. It was observed from the findings that Financial Behaviour Intention developed by people might lead to Actual Financial Behaviour. Thus, developing the intention to plan/budget and save is likely to lead to actual budgeting and savings by the person. However, not all intentions are acted upon due to Actual factors like Income level and the assurance of Financial Support from family. These factors tend to moderate a person's readiness to actualise his or her positive intentions towards good financial behaviour. Thus, it was observed that workers with positive intentions to budget and save are more likely to implement their intentions when income levels are high, whilst workers who have the assurance of Family Support in times of financial need are likely not to carry out their intentions to save. The age of workers, however, did not moderate the Intention-Actual Financial Behaviour relationship as expected.

Conclusions

The conclusions drawn from the analysis of the first objective posit that Financial Knowledge influences financial behaviour, but this only happens when the worker perceives to understand the link between the knowledge he or she may possess and the implications of such knowledge on his financial well-being. However, when workers exhibit the capacity to calculate and explain financial concepts due to an objective Financial Knowledge they possess as a result of their educational background or financial training but fails to link that knowledge to their personal finance and financial wellbeing, then the Actual Financial Knowledge alone may not influence behaviour. Thus, Actual Financial Knowledge does not directly influence financial behaviour, but Perceived Financial Knowledge does.

The findings of the second objective conclude that understanding financial terms, having the capacity to calculate and explain financial concepts builds a person's financial skills and competence, thereby improving financial confidence. Therefore, Actual Financial Knowledge directly influences the Financial Self-Efficacy of workers. On the contrary, Perceived Financial Knowledge was observed to influence the Financial Attitude of workers. Thus, workers who subjectively think they have Financial Knowledge and perceive to understand the link between Financial Knowledge and its benefits to their personal finance may develop a positive Financial Attitude towards financial planning/budgeting and savings behaviour.

Objective three concludes that those who have a positive attitude towards financial planning/ budgeting and savings develop greater intention to carry out such practices. Financial Attitude was seen to be the most significant determiner of Financial Behaviour Intention among the variables considered for this study. Additionally, a worker's financial behaviour is shown to be influenced by the financial behaviour of friends, family, and respected persons of the worker. That is the Descriptive Norm. It thus implies that family practices on finances, particularly when growing up, what friends and colleagues at the office do, and the type of financial discussions they take could affect the Financial Behaviour Intention of workers.

Locus of Control also exhibited some influence on the intention to carry out financial behaviour. Workers with Internal Locus of Control (Internals) appear to develop positive intentions towards savings and budgeting behaviour compared to those with external Locus of Control. Again, those who perceive to be financially knowledgeable also appear to develop good intentions towards savings and financial planning/budgeting behaviour. It appears from the findings that there is a motivation to develop positive Financial Attitudes that may result in good financial behaviour when a worker is able to link the impact of the Perceived Financial Knowledge acquired to his/her financial wellbeing.

Furthermore, it was observed from this study that Actual Financial Knowledge and Financial Self-Efficacy might not directly improve the Financial Behaviour Intention of workers in terms of savings, financial planning/ budgeting. Workers who are well educated in finance and its related areas of study may not necessarily have better Financial Behaviour Intentions than workers who are not grounded in finance-related areas of study. Thus, persons are influenced more by their Financial Attitude and Locus of Control beliefs concerning life and its expectations and the credence that they can contribute to improving their financial stability through Financial Knowledge and Descriptive Norm.

Lastly, the conclusion drawn from objective four was that a lot more people have the intention to practice good financial behaviour like undertaking financial planning/ budgeting and savings. However, they do not actually carry out such intentions partly due to their income levels and the assurance of financial support during difficult situations from spouses, parents and family members. Workers with a positive intention to save appear to save higher when income levels are high. Thus, the findings showed a positive moderating effect. Likewise, workers who have the assurance of financial support appears to give inadequate attention to financial planning/budgeting and savings. Thus, a negative moderating effect was observed. Surprisingly, the Age of respondents did not impact savings behaviour as was expected from the tenets of the life cycle hypothesis. The observation may result from the youthful nature of the sample as 81.7 percent of the respondents had their ages up to 40yrs. Additionally, the perception that there is a regular flow of income monthly may also be a contributing factor to the behaviour observed.

Contribution to Knowledge

The study contributes empirically to the body of knowledge on financial behaviour with the finding that assurance of financial support from family in difficult times and income level of workers moderate the extent to which positive intentions developed by workers towards savings are practised. Furthermore, findings from this study also revealed that the Financial Attitude and Financial Self-Efficacy of formal sector workers are influenced by their Perceived Financial Knowledge and Actual Financial Knowledge, respectively. It was, however, observed that an increase in the income level of workers does not directly lead to improved financial behaviour, especially in the area of savings and financial planning/budgeting, as presumed by the life cycle hypothesis. Instead, it moderates the relationship when the Financial Behaviour Intention is positive.

Additionally, the study contributes to the theory through the findings that the theory of reasoned action approach applies to people's financial behaviour. It was further confirmed by the study's findings that not all financial intentions developed especially in the area of financial planning/ budgeting and saving, are practised by people. This confirms the position of the theory, according to Fishbein and Ajzen (2010). The study also confirmed that workers are motivated to practice good financial behaviour when their friends, families, and notable personalities in the field of finance also practice them. This is the first study that has employed the theory to examine formal sector workers' personal finance behaviour to the best of the researcher's knowledge.

Lastly is the contribution to practice, the study contributes to the argument that obtaining financial knowledge in itself does not influence financial behaviour substantially. Thus, improved financial knowledge alone does not lead to improved financial behaviour. Obtaining Financial Knowledge improves financial skills and expertise, thereby improving the financial confidence of people. Again, the perception of having adequate Financial Knowledge does influence a person’s Financial Attitude towards a particular financial behaviour. With the small effect size of each variable, the implication is that all the factors that appear to influence financial behaviour must be worked on concurrently to achieve the expected outcome.

Recommendations

The government in an attempt to enhance good financial behaviour instituted the yearly financial week celebration through the Ministry of Finance and Economic Planning. In order to achieve target results, it is recommended that the focus of such yearly celebrations should be to improve the Financial Attitude of persons. There must be a gradual change of certain myths and beliefs that characterise the development of specific financial behaviours through symposiums, talk shows and press engagement.

Through the Ministry of Education, the government must introduce personal finance management as part of the educational curriculum at various levels of the education system to equip the next generation of workers with the requisite knowledge, skills, confidence, and attitude required in optimizing their financial opportunities.

Financial Attitude has been observed to be a significant influence on financial behaviour. The findings have shown that perceived and objective Financial Knowledge impact positively on Financial Attitude and Financial Self-Efficacy. Therefore, it is recommended that employers educate workers through seminars and workshops to enhance their understanding of financial planning/budgeting and savings and the rippling effect of their financial behaviour on their financial well-being.

It is further recommended that workers take up lessons in personal finance to improve their skills, competence and confidence. They must also appreciate the impact of their financial behaviour on their financial wellbeing and households. Workers are also encouraged to demystify the myths surrounding fate, luck and financial behaviour. People with an external Locus of Control, in particular, need more orientation to adjust their beliefs gradually.

Workers are encouraged to save periodically to meet financial obligations and enhance financial well being. They must also plan adequately towards their retirement by adopting a personal retirement plan in addition to the compulsory pension scheme instituted by the government through their employers.

It is again recommended that workers prepare and maintain a periodic budget in order to control spending and enhance prudent financial management.

Suggestions for Future Research

Firstly, it is suggested that further research is conducted across the informal sector to examine their financial behaviour to determine whether the findings of this study apply to that sector.

Further studies are also required to unearth other factors that equally impact people's financial behaviour. Though the study found a relationship between a number of variables tested, the explained variation was not exhaustive and thus required further research.

A lot more studies are required to understand workers' Financial Attitude and their antecedents. This will help improve the Financial Attitude of workers because the study observed that Financial Attitude contributes significantly to financial behaviours.

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APPENDIX A

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

SURVEY ON PERSONAL FINANCE BEHAVIOUR

Dear Respondent,

This survey is intended to measure **"Personal Finance Behaviour of Formal Sector Workers in Ghana**". The study is for academic purpose only. I would be grateful if you could spare 15-20minutes of your time to answer this questionnaire. Please you are not required to indicate your name on the questionnaire. Participation is voluntary.

PERSONAL INFORMATION

Please TICK [√] the appropriate box where applicable.

1) Sex [ ] Male [ ] Female

2) Age range: [ ] up to 25yrs [ ] 26yrs to 30yrs [ ]31yrs to 35yrs [ ] 36yrs to 40yrs [ ] 41yrs to 45yrs [ ] 46yrs to 50yrs [ ] 51yrs and above

3) What is your HIGHEST completed educational qualification or nearest equivalent?

[ ] No Formal education [ ] Primary school [ ] JHS/SHS or equivalent [ ] Diploma [ ] Bachelor Degree [ ] Master Degree and above [ ] Professional qualification please specify………………..

4) Please indicate your profession ………………………..

5) In which sector do you work? [ ] Public [ ] Private

6) Indicate the name of the organisation and place of work (eg. Ghana Post, Accra)……………………………………...

7) What is your **number of years** of post-qualification experience? [ ] up to 5yrs [ ] 6yrs to 10yrs [ ] above 10yrs

8) Which staff category do you belong? [ ] Junior staff [ ] Senior staff [ ] Senior Member [ ] Management Others please specify ………………….

9) What is your Disposable Income level? [ ] Below GH¢500.00 [ ] 500.00 - 1,000.00 [ ] 1001.00 -2,000.00 [ ] 2,001.00- 3,000.00 [ ] Above 3,000.00

NB: (Disposable Income is Gross Income less statutory deductions)

10)What is your source of income? [ ] Employment [ ] Business/Investment [ ] Family Others please specify……………………………

11) What is your family size (Respondent inclusive) [ ] up to 2 [ ] 3-4 [ ] 5-6 [ ] above 6

12) Do you have a reliable source of financial support from family should you face some financial challenges in the future? [ ] Yes [ ] No

13) Please indicate source of financial support. [ ] Parents [ ] Spouse [ ] Extended family [ ] Not Applicable

14) Have you taken a course or participated in a training/workshop programme on personal finance before? [ ] Yes [ ] No

Questions of Self-Efficacy

From questions 15-22, kindly rank the level of truth that the following assertions are applicable to you.

SELF CONFIDENCE	ET	HT	T	MT	ST
It hard to stick to my spending plan in most instances					
It challenging to make progress towards my financial goals					
When faced with financial challenge, I have a hard time coming up with a solution					
I lack confidence in my ability to manage my finances					
I often postpone financial decisions					

I am anxious about financial and money matters					
I worry about running out of money during retirement					
When unexpected expenses occur, I usually have to go for a loan					

Questions on Financial Attitude

From questions 23-30, Kindly rank your level of agreeableness to the following.

FINANCIAL ATTITUDE	**EA**	**HA**	**A**	**MA**	**SA**
I tend to live for today and let tomorrow take care of itself					
It is more satisfying to spend money today than to save it for the future					
I like to join conversations about financial matters					
Budgeting financial resources reduces financial distress					
Before I buy something I carefully consider whether I can afford it					
I find it hard not to save money for a rainy day					
To care for the future is essential for me					
I feel uncomfortable with having loans					

Questions on Locus of Control

From questions 31-35, Kindly rank your level of agreeableness to the following.

CONTROL	**EA**	**HA**	**A**	**MA**	**SA**
What happens to me is my own doing					
Doing things the right way depends upon ability, luck has nothing to do with it					
When I get what I want, it is usually because I worked hard for it.					
In the long run, people who take care of their personal finances stay wealthy					
Many of the unhappy financial situations in people's life could be their own responsibility					

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Questions on Descriptive Norm

From questions 36-39, Kindly indicate the personal finance behaviour of people around you.

SOCIAL INFLUENCE ON BEHAVIOUR	VF	F	ST	VA	E
How many of your friends have a monthly savings plan that they follow regularly?					
Among your colleagues and friends, how many of them do have a monthly budget that they follow?					
How many of the people you respect and admire have a personal retirement plan apart from the statutory one.					
Among your friends and family, how many of them do have a contingency/emergency fund.					

Questions on Perceived Financial Knowledge

From questions 40- 43, Kindly indicate your perceived financial knowledge.

PERCEIVED FINANCIAL KNOWLEDGE	ET	HT	T	MT	ST
I understand budgeting and the benefits it offers to the individual					
I have a good knowledge about inflation and its impact on our purchasing power					
I know the differences in the classes of assets and their liquidity					
I understand how interest rate are calculated					

Questions on Financial Risk Preference

From questions 44- 48, Kindly indicate your level of agreeableness to the following.

FINANCIAL RISK PREFERENCE	EA	HA	A	MA	SA
Taking risk makes life more fun					
I will take a risk even if it is probable that I might loose					
I commonly make risky decisions					
I am a believer of taking chances					
You never get anywhere without taking chances					

Questions on Intention to practice proper financial behaviour

From questions 49-54, Kindly rank your intentions about some personal finance management practices.

BEHAVIOURAL INTENTION	ET	HT	T	MT	ST
I intend to budget financial resources periodically					
I intend to track my monthly expenditure regularly					
I intend to save a % of my salary monthly					
I intend to have adequate insurance cover for my family					
I intend to have a personal retirement plan					
I intend to observe my financial plan strictly					

ACTUAL FINANCIAL KNOWLEDGE

55. A personal budget will help you to: [ ] Allocate future personal income towards expenses [ ] Prioritize your spending [ ] Monitor the sources of your income [ ] All of the above

56. Which of these assets can be turned into cash readily without losing much value? [ ] Money in a fixed deposit account [ ] Money in a current account [ ] A car [ ] company shares

57. Which type of these banking products usually pays the **least** interest?

[ ] Savings account [ ] Current Account [ ] Time deposit [ ] Treasury bill

58. Suppose you put GH¢1,000 into a **no charges savings account** with a guaranteed interest rate of 2% per year. You don't make any further payments into this account neither do you withdraw any money. How much, in your opinion, would be in the account at the end of the first year, once the interest payment is made? [ ] GH¢ 1,002.00 [ ] GH¢1,200.00 [ ] GH¢1,020.00 [ ] GH¢1,000.00

59. An investment with a high return is likely to be high risk or if someone offers you the chance to make a lot of money, it is likely that there is also a chance that you will lose a lot of money. [ ] True [ ] False [ ] Not sure

60. In your opinion, the interest charged on a loan is calculated based on? [ ] Borrower's monthly income [ ] Borrower's net income [ ] Principal amount borrowed [ ] None of the above

61. You borrow GH¢2,000.00 from a bank. You are expected to pay GH¢200.00 every month for one year. What, in your opinion, is the percentage interest on this loan? [ ] 10% [ ] 15% [ ] 20% [ ] 30%

62. Imagine that five siblings are given a gift of GH¢1,000 in total. If the siblings have to share the money equally, how much do you anticipate that each one gets? [ ] GH¢1,000.00 [ ] GH¢ 200.00 [ ] GH¢100.00 [ ] GH¢20.00

63. From Q62, imagine that the siblings have to wait for one year to get their share of the GH¢1,000 and inflation rate stays at 9 percent. In one year's time, what do you think will be the real value of each sibling's share of the gift. a) GH¢ 100.00 b) GH¢200.00 c) GH¢182.00 d) GH¢180.00

64. High inflation means that the cost of living is increasing rapidly.

[ ] True [ ] False [ ] Not sure

Suppose you earn GH¢ 1,200 monthly and you spend GH¢500 on food, GH¢70 on utilities, GH¢100 on transport and GH¢440 on other expenses every month. Please use this to answer Questions 65-67.

65. What do you think is the percentage of your income spent on food alone for one month? [ ] 42% [ ] 50% [ ] 4.2% [ ] 5.0%

66. How much of your income could be saved assuming those expenditures are necessary for the survival of the home.

[ ] GH¢80.00 [ ] GH¢90.00 [ ] GH¢100.00 [ ] GH¢60.00

67. Suppose you borrow funds from the bank that requires a monthly payment of GH¢ 200.00, what do you anticipate to be the position of your budget.

[ ] deficit of GH¢90.00 [ ] deficit of GH¢110.00 [ ] surplus of GH¢90.00 [ ] surplus of GH¢110.00

ACTUAL PERSONAL FINANCE BEHAVIOUR

From question 68-79, kindly rank the level of truth that the following assertions are applicable to you.

FINANCIAL BEHAVIOUR	**ET**	**HT**	**T**	**MT**	**ST**
I have a monthly financial plan in place at least for the last 3months					
I have been tracking monthly actual expenditure with budgeted at least for the last 3months					
I pay my bills on time					
I carefully consider whether I need something before I buy					
I carefully consider whether I can afford something before I buy					
FINANCIAL BEHAVIOUR	**ET**	**HT**	**T**	**MT**	**ST**
I often borrow to support household demands					
I ensure that my non-mortgage debt is below 25% of my disposable income					
When unexpected expenses occur, I usually have to borrow					
I have been saving part of my income every month at least for the last 3months					
I have emergency fund/savings					
I have insurance cover for myself/ family					
I have a personal retirement fund apart from the statutory requirement					

80. What percentage (%) of your income do you save every month ………………….

81. Sometimes people find that their income does not quite cover their living costs. In the last 12 months, has this happened to you? [ ] Yes [ ] No

82. What did you do to make ends meet the last time this happened? **Tick as many as applicable**

[ ] Cut back on spending [ ] Draw money out of savings to support living cost [ ] Sell something I own [ ] Work overtime to earn extra money [ ] Borrow money from family/friends/employer [ ] Borrow money from the Bank/Finance Institutions Other sources (please specify) ………………

83. If you lost your main source of income, how long could you continue to cover living expenses, without borrowing any money?

[ ] Less than a week [ ] At least a week, but not one month [ ] At least one month, but not three months [ ] At least three months, but not six months [ ] More than six months.

84. Tick any of the financial products you currently hold

Investment:		**Borrowings:**	
Insurance	[ ]	Consumer loan from bank	[ ]
Personal Retirement Fund	[	Mortgage	[]
Education Fund	[ ]	Soft loans from friends	[ ]
Treasury bill/Fixed deposit	[ ]	Salary Advance from employer	[ ]
Shares/Bonds	[ ]		

Others (please specify)………………………..

Thank you for the time used in answering this questionnaire. God bless you

APPENDIX B

STATISTICAL TEST OF DIFFERENCES

AFK ranks on Sector

	Working Sectors	N	Mean Rank
Actual Financial Knowledge Score	Public	295	202.98
	Private	111	204.88
	Total	406	

Mann Withney U test on AFK/Sector

	Actual Financial Knowledge Score
Mann-Whitney U	16219.00
Wilcoxon W	59879
Z	-.146
Asymp. Sig. (2-tailed)	.884

AFK ranks on Location

	Work location of respondents	N	Mean Rank
Actual Financial knowledge score of respondents.	KEEA	96	197.72
	TAM	80	181.81
	Accra	230	213.46
	Total	406	

Kruskal Wallis test on AFK/Location

	Actual Financial Knowledge Score
Chi-Square	4.675
Df	2
Asymp. Sig.	.097

FA ranks on sector

	Working Sectors	N	Mean Rank
Financial Attitude	Public	295	207.37
	Private	111	193.21
	Total	406	

Mann Withney U on FA/Sector

	Composite Financial Attitude Score
Mann-Whitney U	15231.500
Wilcoxon W	21446.500
Z	-1.086
Asymp. Sig. (2-tailed)	.278

FSE ranks on Sex

	Sex	N	Mean Rank
Composite Self-Efficacy Score	Male	254	201.36
	Female	152	207.08
	Total	406	

Mann Withney U test on FSE/Sex

	Financial Self-Efficacy Score
Mann-Whitney U	18760.00
Wilcoxon W	51145.00
Z	-.476
Asymp. Sig. (2-tailed)	.634

LoC Ranks on Sex

	Sex	N	Mean Rank
Composite Locus of Control Score	Male	254	201.18
	Female	152	207.37
	Total	406	

Mann Whitney U on LoC/Sex

	Composite locus of control
Mann-Whitney U	18715.500
Wilcoxon W	51100.500
Z	-.516
Asymp. Sig. (2-tailed)	.606

Ranks on financial behaviour and financial intention

					Percentiles		
	Mean	S D	Min.	Max.	25th	50th (Mdn)	75th
composite Actual Financial Behaviour	3.2529	.53974	1.83	4.83	2.8333	3.2500	3.6667
composite financial behaviour intention	3.7221	.82710	1.00	5.00	3.1250	3.8333	4.3333

Wilcoxon Test on FBI/AFB

	Composite Financial Behaviour Intention- Composite Actual Financial Behaviour
Z	-11.028
Asymp. Sig. (2-tailed)	.000

APPENDIX C

OBJECTIVE ONE OUTER MODEL SIGNIFICANCE

	SD	T Stat	P Values
FA26 <- Financial Attitude	0.044	18.246	0.000
FA27 <- Financial Attitude	0.037	21.916	0.000
FA29 <- Financial Attitude	0.044	17.649	0.000
PFK40 <- Perceived Financial Knowledge	0.040	21.588	0.000
PFK41 <- Perceived Financial Knowledge	0.038	21.392	0.000
PFK42 <- Perceived Financial Knowledge	0.069	10.621	0.000
PFK43 <- Perceived Financial Knowledge	0.077	8.366	0.000
SC15 <- Financial Self Efficacy	0.048	14.431	0.000
SC16 <- Financial Self Efficacy	0.036	20.846	0.000
SC17 <- Financial Self Efficacy	0.024	33.862	0.000
SC18 <- Financial Self Efficacy	0.025	31.764	0.000
SC19 <- Financial Self Efficacy	0.026	30.333	0.000
SC20 <- Financial Self Efficacy	0.050	12.237	0.000
SC21 <- Financial Self Efficacy	0.038	18.736	0.000
SC22 <- Financial Self Efficacy	0.033	22.487	0.000
Score <- Actual Financial Knowledge	0.000		

APPENDIX D

OBJECTIVE TWO OUTER MODEL SPECIFICATIONS

Latent Construct	Indicators	Outer Loading	CA	rho_A	CR	AVE
Perceived Financial Knowledge (PFK)	PFK40	.720	0.704	0.711	0.818	0.529
	PFK41	.852				
	PFK42	.837				
	PFK43	.763				
Financial Attitude (FA)	FA26	.788	0.712	0.715	0.838	0.633
	FA27	.813				
	FA29	.787				
Financial Self Efficacy (FSE)	SC15	.663	0.872	0.886	0.901	0.566
	SC16	.731				
	SC17	.801				
	SC18	.816				
	SC19	.798				
	SC21	.678				
	SC22	.764				
Actual Financial Knowledge (AFK)	Budg	.811	.698	.715	.830	.619
	Infla	.731				
	Sav	.816				

	HTMT Ratio	Confidence Interval (CI)
FA -> AFK	0.260	$CI_{0.900}$[0.140-0.401]
FSE -> AFK	0.272	$CI_{0.900}$[0.170-0.386]
FSE -> FA	0.118	$CI_{0.900}$[0.081-0.239]
PFK -> AFK	0.365	$CI_{0.900}$[0.246-0.472]
PFK -> FA	0.284	$CI_{0.900}$[0.190-0.406]
PFK -> FSE	0.108	$CI_{0.900}$[0.081-0.214]

APPENDIX E

OBJECTIVE THREE OUTER MODEL SPECIFICATION

Latent Construct	Indictors	Outer Loadings	CA	Rho_A	CR	AVE
FBI	BI49	0.685	0.834	0.843	0.879	0.548
	BI50	0.769				
	BI51	0.744				
	BI52	0.653				
	BI53	0.795				
	BI54	0.784				
DN	DN36	0.693	0.732	0.857	0.823	0.540
	DN37	0.722				
	DN38	0.853				
	DN39	0.655				
FA	FA26	0.785	0.712	0.857	0.837	0.632
	FA27	0.830				
	FA29	0.768				
AFK	Budge	0.826	0.698	0.742	0.822	0.608
	Infla	0.662				
	Sav	0.839				
LoC	LoC32	0.687	0.727	0.751	0.825	0.543
	LoC33	0.695				
	LoC34	0.810				
	LoC35	0.748				
PFK	PFK40	0.783	0.805	0.830	0.868	0.622
	PFK41	0.832				
	PFK42	0.795				
	PFK43	0.744				
FSE	SC15	0.696	0.872	0.980	0.895	0.552
	SC16	0.766				
	SC17	0.773				
	SC18	0.787				
	SC19	0.731				
	SC21	0.589				
	SC22	0.833				

OBJECTIVE THREE HTMT RATIOS

	HTMT Ratio	Confidence Interval (CI)
DN -> AFK	0.150	CI$_{0.900}$[0.118-0.239]
FA -> AFK	0.260	CI$_{0.900}$[0.137-0.406]
FA -> DN	0.087	CI$_{0.900}$[0.070-0.220]
FBI -> AFK	0.288	CI$_{0.900}$[0.198-0.407]
FBI -> DN	0.228	CI$_{0.900}$[0.150-0.350]
FBI -> FA	0.546	CI$_{0.900}$[0.402-0.675]
FSE -> AFK	0.272	CI$_{0.900}$[0.172-0.385]
FSE -> DN	0.282	CI$_{0.900}$[0.164-0.403]
FSE -> FA	0.118	CI$_{0.900}$[0.081-0.234]
FSE -> FBI	0.114	CI$_{0.900}$[0.097-0.216]
LoC -> AFK	0.244	CI$_{0.900}$[0.153-0.378]
LoC -> DN	0.126	CI$_{0.900}$[0.105-0.328]
LoC -> FA	0.534	CI$_{0.900}$[0.383-0.673]
LoC -> FBI	0.483	CI$_{0.900}$[0.363-0.603]
LoC -> FSE	0.147	CI$_{0.900}$[0.120-0.247]
PFK -> AFK	0.365	CI$_{0.900}$[0.251-0.479]
PFK -> DN	0.068	CI$_{0.900}$[0.069-0.199]
PFK -> FA	0.284	CI$_{0.900}$[0.196-0.413]
PFK -> FBI	0.432	CI$_{0.900}$[0.324-0.539]
PFK -> FSE	0.108	CI$_{0.900}$[0.081-0.216]
PFK -> LoC	0.420	CI$_{0.900}$[0.317-0.524]

APPENDIX F

OBJECTIVE THREE OUTER MODEL SIGNIFICANCE

	SD	T Stat	P Values
BI49 <- Financial Behaviour Intention	0.039	17.508	0.000
BI50 <- Financial Behaviour Intention	0.027	28.399	0.000
BI51 <- Financial Behaviour Intention	0.032	23.620	0.000
BI52 <- Financial Behaviour Intention	0.041	15.886	0.000
BI53 <- Financial Behaviour Intention	0.022	36.297	0.000
BI54 <- Financial Behaviour Intention	0.023	34.813	0.000
DN36 <- Descriptive Norm	0.117	5.943	0.000
DN37 <- Descriptive Norm	0.113	6.376	0.000
DN38 <- Descriptive Norm	0.079	10.779	0.000
DN39 <- Descriptive Norm	0.102	6.419	0.000
FA26 <- Financial Attitude	0.037	21.406	0.000
FA27 <- Financial Attitude	0.027	30.336	0.000
FA29 <- Financial Attitude	0.039	19.712	0.000
LoC32 <- Locus of Control	0.051	13.338	0.000
LoC33 <- Locus of Control	0.053	13.156	0.000
LoC34 <- Locus of Control	0.027	29.570	0.000
LoC35 <- Locus of Control	0.041	18.143	0.000
PFK40 <- Perceived Financial Knowledge	0.030	26.425	0.000
PFK41 <- Perceived Financial Knowledge	0.024	34.924	0.000
PFK42 <- Perceived Financial Knowledge	0.033	23.782	0.000
PFK43 <- Perceived Financial Knowledge	0.038	19.732	0.000
SC15 <- Financial Self Efficacy	0.197	3.542	0.000
SC16 <- Financial Self Efficacy	0.206	3.726	0.000
SC17 <- Financial Self Efficacy	0.190	4.072	0.000
SC18 <- Financial Self Efficacy	0.180	4.371	0.000
SC19 <- Financial Self Efficacy	0.183	3.995	0.000
SC21 <- Financial Self Efficacy	0.203	2.896	0.004
SC22 <- Financial Self Efficacy	0.250	3.327	0.001
Score <- Actual Financial Knowledge	0.000		

APPENDIX G

OBJECTIVE FOUR OUTER MODEL SPECIFICATIONS

Hypotheses	Latent Construct	Indicator	Outer Loading	CA	rho_A	CR	AVE
H3b:	PBI	BI49	0.817	0.754	0.757	0.859	0.670
		BI50	0.834				
		BI54	0.803				
	PBB	Pl_Bdg68	0.716	0.704	0.718	0.818	0.530
		Pl_Bdg69	0.785				
		Pl_Bdg71	0.731				
		Pl_Bdg72	0.674				
	Income	DI	1.000	1.000	1.000	1.000	1.000
H3c:	PBI	BI49	0.817	0.754	0.757	0.859	0.670
		BI50	0.834				
		BI54	0.804				
	PBB	Pl_Bdg68	0.713	0.704	0.714	0.818	0.530
		Pl_Bdg69	0.778				
		Pl_Bdg71	0.732				
		Pl_Bdg72	0.685				
	AGE	Age	1.000	1.000	1.000	1.000	1.000
H3e	PBI	BI49	0.817	0.754	0.757	0.859	0.670
		BI50	0.834				
		BI54	0.803				
	PBB	Pl_Bdg68	0.730	0.704	0.718	0.818	0.530
		Pl_Bdg69	0.793				
		Pl_Bdg71	0.718				
		Pl_Bdg72	0.665				
	FSupport	FS	1.000	1.000	1.000	1.000	1.000
H3f	SI	BI51	0.792	0.746	0.748	0.855	0.663
		BI52	0.812				
		BI53	0.838				
	SB	Svns77	0.824	0.721	0.735	0.841	0.638
		Svns78	0.793				
		Svns79	0.779				
	Income	DI	1.000	1.000	1.000	1.000	1.000
H3h	SI	BI51	0.789	0.746	0.749	0.855	0.663
		BI52	0.815				
		BI53	0.838				
	SB	Svns77	0.812	0.721	0.728	0.842	0.640
		Svns78	0.805				
		Svns79	0.781				
	AGE	Age	1.000	1.000	1.000	1.000	1.000
H3i	SI	BI51	0.790	0.746	0.749	0.855	0.663
		BI52	0.814				
		BI53	0.838				
	SB	Svns77	0.813	0.721	0.728	0.842	0.640
		Svns78	0.802				
		Svns79	0.784				
	FSupport	FS	1.000	1.000	1.000	1.000	1.000

APPENDIX H

OBJECTIVE FOUR HTMT RATIOS

Hypothesis		HTMT Ratio	Confidence Interval
H3b:	PBI <-> PBB	0.639	$CI_{0.90}$[0.521-0.751]
	Income <-> PBB	0.080	$CI_{0.90}$[0.048-0.166]
	Income <-> PBI	0.244	$CI_{0.90}$[0.138-0.346]
H3c	Age <-> PBB	0.023	$CI_{0.90}$[0.0210-0.140]
	PBI <-> PBB	0.639	$CI_{0.90}$[0.525-0.748]
	PBI <-> Age	0.081	$CI_{0.90}$[0.0279-0.161]
H3e	PBI <-> APBB	0.639	$CI_{0.90}$[0.531-0.741]
	FSupport <-> PBB	0.150	$CI_{0.90}$[0.079-0.248]
	FSupport <-> PBI	0.040	$CI_{0.90}$[0.015-0.157]
H3f	Income <-> SI	0.159	$CI_{0.90}$[0.072-0.279]
	SB <-> SI	0.500	$CI_{0.90}$[0.363-0.620]
	SB <-> Income	0.145	$CI_{0.90}$[0.074-0.257]
H3h	SI <-> Age	0.082	$CI_{0.90}$[0.023-0.180]
	SB <-> Age	0.049	$CI_{0.90}$[0.023-0.141]
	SB <-> SI	0.500	$CI_{0.90}$[0.382-0.616]
H3i	FSupport <-> SI	0.074	$CI_{0.90}$[0.025-0.178]
	SB <-> SI	0.500	$CI_{0.90}$[0.381-0.611]
	SB <-> FSupport	0.119	$CI_{0.90}$[0.033-0.228]

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APPENDIX I

OBJECTIVE FOUR OUTER MODEL COLLINEARITY

Hypotheses	Exogenous Constructs	Tolerance	VIF
H4b	PBI	0.951	1.051
	Income	0.954	1.048
H4c	Age	0.997	1.003
	PBI	0.998	1.002
H4e	Family Support	0.999	1.001
	PBI	0.997	1.003
H4f	Age	0.962	1.039
	SI	0.993	1.007
H4h	Family Support	0.996	1.004
	SI	0.993	1.007
H4i	Income	0.981	1.019
	SI	0.955	1.047

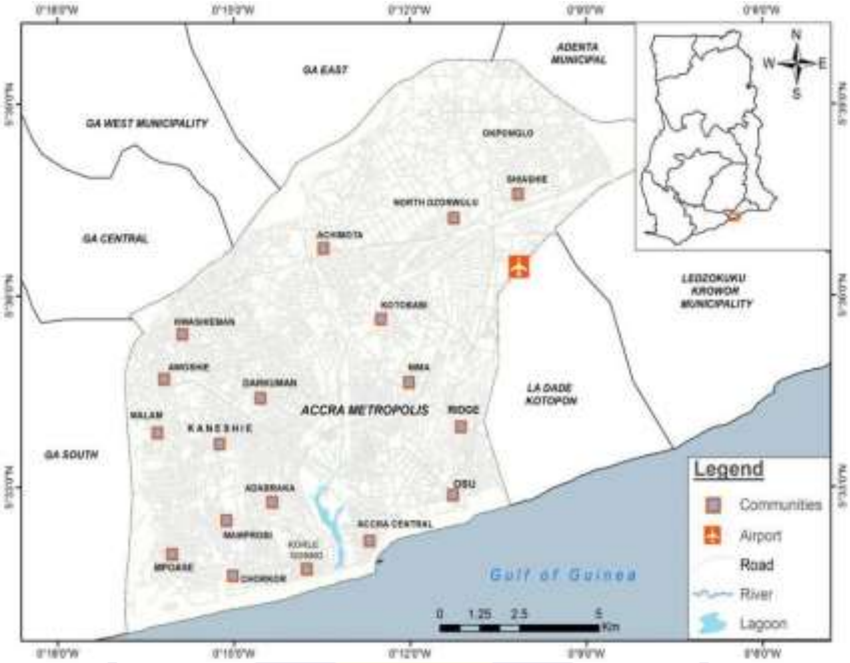
APPENDIX J

OBJECTIVE FOUR OUTER MODEL SIGNIFICANCE

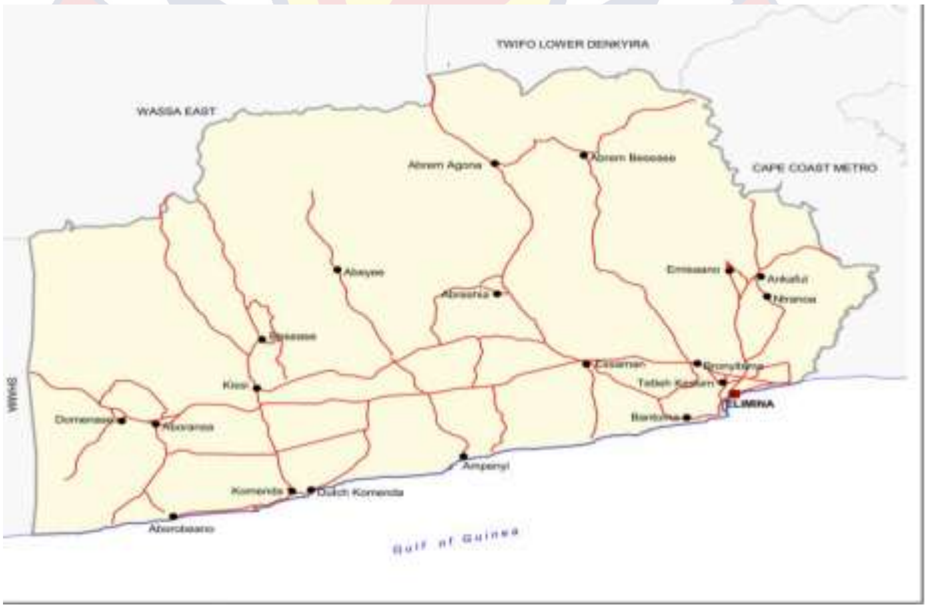
		T Stat	P Values
H4b	BI49 <- PBI	25.573	0.000
	BI50 <- PBI	30.761	0.000
	BI54 <- PBI	34.970	0.000
	Pl_Bdg68 <- PBB	13.788	0.000
	Pl_Bdg69 <- PBB	21.339	0.000
	Pl_Bdg71 <- PBB	16.837	0.000
	Pl_Bdg72 <- PBB	13.056	0.000
H4c	BI49 <-PBI	25.016	0.000
	BI50 <-PBI	32.061	0.000
	BI54 <- PBI	36.028	0.000
	Pl_Bdg68 <- PBB	15.833	0.000
	Pl_Bdg69 <- PBB	24.562	0.000
	Pl_Bdg71 <- PBB	17.031	0.000
	Pl_Bdg72 <- PBB	11.876	0.000
H4e	BI49 <- PBI	25.573	0.000
	BI50 <- PBI	30.923	0.000
	BI54 <- PBI	35.408	0.000
	Pl_Bdg68 <- PBB	16.021	0.000
	Pl_Bdg69 <- PBB	25.125	0.000
	Pl_Bdg71 <- PBB	16.385	0.000
	Pl_Bdg72 <- PBB	12.576	0.000
H4f	BI51 <- SI	24.299	0.000
	BI52 <- SI	28.519	0.000
	BI53 <- SI	31.365	0.000
	Svns77 <- SB	26.844	0.000
	Svns78 <- SB	23.656	0.000
	Svns79 <- SB	20.730	0.000
H4h	BI51 <- SBI	24.299	0.000
	BI52 <- SBI	28.519	0.000
	BI53 <- SBI	31.365	0.000
	Svns77 <- SB	26.844	0.000
	Svns78 <- SB	23.656	0.000
	Svns79 <- SB	20.730	0.000
H4i	BI51 <- SBI	23.160	0.000
	BI52 <- SBI	30.839	0.000
	BI53 <-SBI	32.230	0.000
	Svns77 <- SB	27.103	0.000
	Svns78 <- SB	26.608	0.000
	Svns79 <- SB	23.202	0.000

APPENDIX K

GEOGRAPHICAL LOCATIONS OF THE TARGET POPULATION


0°18'0"W
0°15'0"W
0°12'0"W
0°9'0"W
0°6'0"W
5°39'0"N
5°36'0"N
5°33'0"N
GA EAST
ADENTA MUNICIPAL
GA WEST MUNICIPALITY
GA CENTRAL
GA SOUTH
OKPONGLO
SHIASHIE
NORTH DZORWULU
ACHIMOTA
KOTOBABI
KWASHIEMAN
AWOSHIE
DARKUMAN
NIMA
ACCRA METROPOLIS
RIDGE
MALAM
KANESHIE
LA DADE KOTOPON
LEDZOKUKU KROWOR MUNICIPALITY
ADABRAKA
OSU
MAMPROBI
ACCRA CENTRAL
KORLE GONNO
MPOASE
CHORKOR
Gulf of Guinea
0
1.25
2.5
5
Km
N
W
E
S
Legend
Communities
Airport
Road
River
Lagoon

Map of Accra Metropolis (Source: Accra Metropolitan Assembly)


TWIFO LOWER DENKYIRA
WASSA EAST
CAPE COAST METRO
SHAMA
Abrem Agona
Abrem Besease
Abeyee
Abrasha
Ensaano
Ankaful
Nyanoa
Besease
Kissi
Essaman
Bronyibima
Tetteh Kesim
ELMINA
Domenase
Abonasa
Bantuma
Ampenyi
Komenda
Dutch Komenda
Aberobaano
Gulf of Guinea

Map of Komenda Edina Aguafo and Abbriem Municipal (Source: Gha na Statistical Service, 2014)

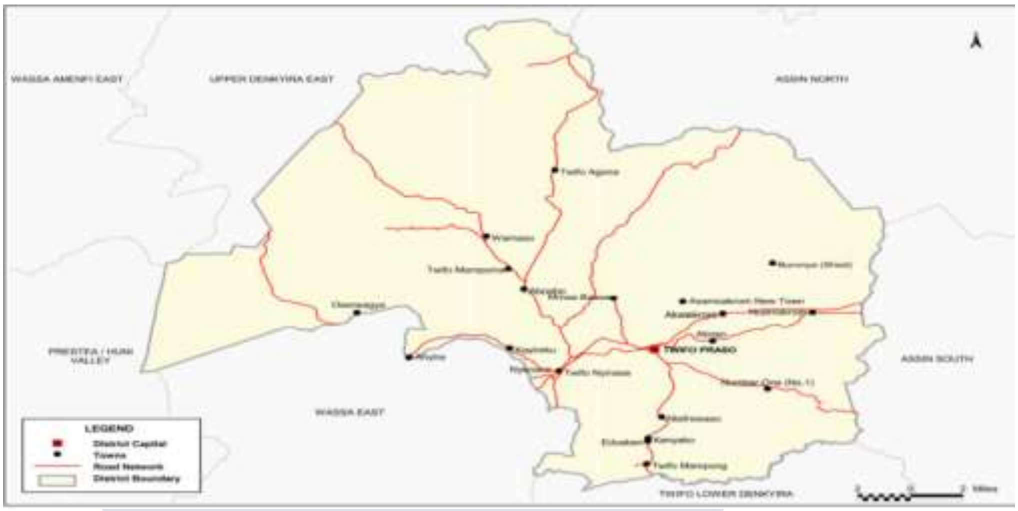

WASSA AMENFI EAST
UPPER DENKYIRA EAST
ASSIN NORTH
Twifo Agona
Twifo Mampong
TWIFO PRASO
Twifo Nyinase
PRESTEA / HUNI VALLEY
ASSIN SOUTH
WASSA EAST
LEGEND
District Capital
Towns
Road Network
District Boundary
Twifo Mampong
TWIFO LOWER DENKYIRA
Miles

Figure 4: Map of Twifo Ati Mokwa District (Source: Twifo Ati Mokwa District Assembly

VERITAS LUMEN NOBIS