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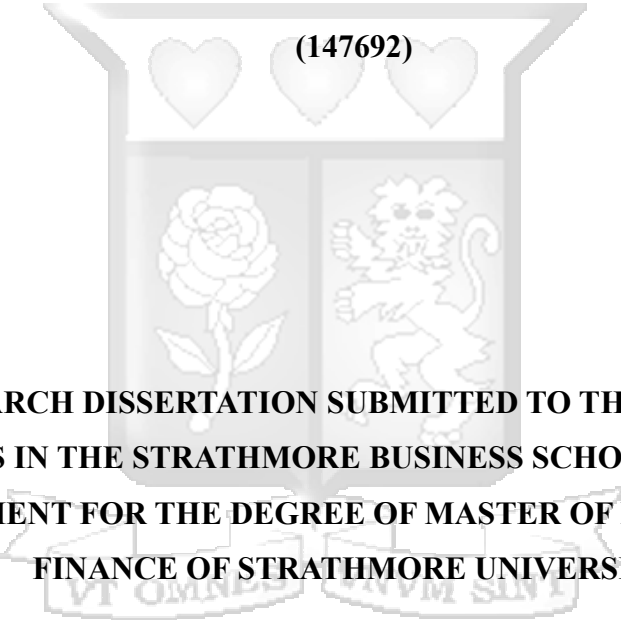
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**FINANCIAL LITERACY AND PERSONAL FINANCIAL MANAGEMENT  
AMONG ATHLETES IN KENYA: MODERATING EFFECT OF DIGITAL  
LITERACY**

**MERCY ROTICH**

**(147692)**



**A RESEARCH DISSERTATION SUBMITTED TO THE SCHOOL OF  
BUSINESS IN THE STRATHMORE BUSINESS SCHOOL IN PARTIAL  
FULFILLMENT FOR THE DEGREE OF MASTER OF DEVELOPMENT  
FINANCE OF STRATHMORE UNIVERSITY**

**MAY, 2024**

## DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the research contains no material previously published or written by another person except where due reference is made in the dissertation itself.

Name of Candidate: MERCY CHERONO ROTICH

 Signature  Date 31<sup>st</sup> May 2024

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Dr.

Director, Office of Graduate Studies

## ACKNOWLEDGEMENT AND DEDICATION

I say a big thank you to God for gift of good health during the time I wrote this research. Thank you too to everyone who in various ways contributed to my success at Strathmore University. Thank you, my supervisor Dr. Farida Abdul for good supervision and working with me the entire time. I am grateful for the many comments and reviews that were critically invaluable. Lastly, thank you my friends, relatives, classmates and workmates that have been encouraging me when I wrote this research.

To my family, close friends, supervisor and research advisors, this work is earnestly dedicated to you. They have been helpful in several ways among them pushing me to work diligently in this research study. I also dedicate it to my workmates for constant encouragement.



## ABSTRACT

Professional athletes have the opportunity to amass significant money at a relatively young age. From the standpoint of personal finance, athletes may find it difficult to manage such a large sum of money. The brief and unpredictable nature of an athlete's active career makes money management crucial. The study's objective was to determine the impact of financial literacy on Kenyan athletes' individual financial management. It also examined how financial literacy and individual financial management among Kenyan athletes were related to digital literacy. The study evaluated the influence of financial behavior, attitude, and knowledge on Kenyan athletes' individual financial management. It also sought to ascertain the impact of digital literacy on the relationship between financial literacy and personal financial management of Kenyan athletes. The study is based on the Theory of Planned Behavior and Social Learning Theory.

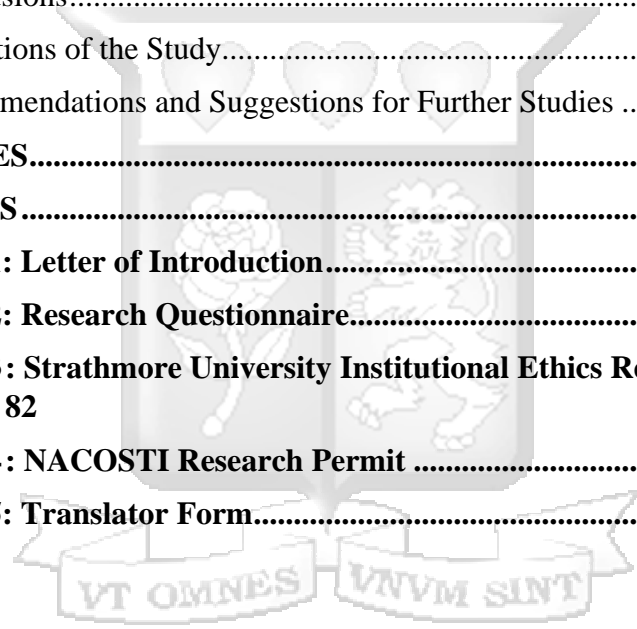
In this investigation, the pragmatic philosophy was applied. The study employed a cross-sectional research design since data collection was done once. The population under study comprised all professional athletes in Kenya. Professional athletes formed the target audience at Iten Camps. There were 1,500 professional athletes in the Iten region. Using the Yamane formula, the sample size for this study consisted of 316 athletes. Standardized questionnaires were given to respondents to collect primary data for this research. The researcher used a translator to assist in gathering data from individuals who might not be able to communicate in English or Kiswahili. Quantitative approaches were applied to the processing of the data obtained from Likert-style questions.

Data analysis showed that financial literacy significantly influenced personal financial management of athletes in Kenya. Moreover, financial knowledge and financial control had positive and statistically significant effects on personal financial management of athletes in Kenya. In contrast, financial behavior had a negative and statistically significant effect on personal financial management in Kenya. Further, digital literacy did not moderate the relationship between financial literacy and personal financial management by athletes. The study recommends to Athletics Kenya to conduct financial training to athletes as part of training over and above the prime aim of training camps. This would improve their financial literacy that ultimately leads to better personal financial management.

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## DEFINITION OF TERMS

**Digital literacy:** is the knowhow of using tools of technologies, more so digital technologies to evaluate situations and make decisions (Chan, Churchill, & Chiu, 2017).

**Financial behaviour:** This relates to how people actually behave in financial related decisions (Arianti, 2018).

**Financial Control:** This refers to review of financial plans and taking of corrective actions (Daniel, Richard, Dee, John, & Warmath, 2018).

**Financial Knowledge:** This is possession of various skills that relate to management of resources including investing, saving and preparation of financial plans (Banthia & Dey, 2022; Barbić et al., 2019; OECD, 2017)

**Financial Literacy:** This is possession of financial skills, financial behaviour and financial attitude that is essential in making effective financial decision and achievement of financial targets (OECD, 2017; Lusardi, 2019; Goyal et al., 2021)

**Personal Financial Management:** This refers processes done to ensure achievement of short and long-term financial stability (Kebede, 2015).



## LIST OF ABBREVIATIONS

<b>ICT</b>	Information Communication Technology
<b>NACOSTI</b>	National Commission for Science, Technology Innovation
<b>OLS</b>	Ordinary Least Squares
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>PFM</b>	Personal Financial Management
<b>SPSS</b>	Statistical Package for Social Sciences
<b>SU-ISERC Committee</b>	Strathmore University- Institutional Scientific Ethics Review Committee



## CHAPTER ONE: INTRODUCTION

### 1.1 Background of the Study

In spite of earning large sums of prize money, most athletes face unique challenges in managing their finances. According to Megan et al. (2019) the inability to prudently manage finances exposes athletes to financial difficulties even after earning so much money. This reveals that there is need for athletes to undertake robust personal financial management if they are to avoid financial pitfalls. Personal financial management among athletes was as difficult as the actions on running tracts. For instance, American athletes faced challenges in budgeting practices, retirement preparation and this has been attributed to poor financial literacy (Darnel, 2023). Possessing financial literacy equips one with the knowledge and skills necessary to make prudent financial decisions. An individual with apt financial literacy is able to budget, save, invest and grow financially (Abeyrathna, 2020).

Although financial literacy is an important skill for sportspeople, many athletes are financially illiterate. For instance, Hong and Ian (2017) noted that in Japan, South Korea, Singapore, Portugal, United Kingdom and Mexico, most professional athletes obtained financial knowledge, skills through self-attained means and by trial and error. As such, they ended up making financial mistakes as a result of financial misjudgements and this put them in financial difficulties. Athletes have time constraints to seek financial training as most of their times is spent in training and in the competition arena. This typically exposes them to challenges in managing finances as they do it in an unplanned manner, which eventually leads to financial hardships due to overspending (Rubin, Joseph, & Roberts, 2021).

In Africa, athletes are not excused from challenges in personal financial management. Owusu et al., (2023) investigated the relatedness of financial literacy and the financial conduct of professional football players. The study discovered that raising the financial literacy of Ghanaian professional football players is necessary to promote responsible financial behavior. In Kenya, athletes are becoming overnight millionaires and this brings out major problems due to poor financial decisions (Wanyonyi, Biwott, & Sakataka, 2019). In respect of this, there is a need to explore more on personal financial

management practices in Kenya as this sheds light and offer key information that can be used to improve the situation.

The modern world is a technology world and all processes are influenced by digital technologies in a way and personal financial management has not been exempt. With the advent of internet, the way people do things has changed and personal financial management is not exempted. For example, access to information relating to financial matters have revolutionised how people manage their finances. The digital landscape has advanced financial literacy and financial management in several folds. Firstly, financial information is available on the internet and this has improved financial decision making (Ward, Grillo, & Fernbach, 2022). Nowadays, individuals acquire great deal of information relating to markets, credit and lending options through their phones. Secondly, the internet has introduced digital financial knowledge that is accessible and affordable to most people regardless of wealth status. Li, et al., (2020) view that digital finance and literacy has improved financial inclusion that has instrumentally boosted the fight against poverty.

### **1.1.1 Personal Financial Management**

The phrase "personal financial management" refers to a person's financial goals, including behavior and financial planning. According to Irawati, Sadalia and Raras (2021) personal financial management distinctively entails earning and spending of financial resources that aim at establishing prosperity for individuals. In this context, robust financial management entails processing of information to achieve financial skills that improve financial matters of an individual. Moreover, personal financial management focuses on mitigating future financial risks through apt budgetary skills. For instance, Abeyrathna (2020) notes that personal financial management is crucial in ensuring that individuals are able to survive financial distress during financial crises. Therefore, effective personal financial management is critical towards good lifestyles as it equips individuals with skills that lead to good financial health.

Ineffective personal financial management puts people into risky situations such as bankruptcy and heavy indebtedness (Waliszewski & Warchlewska, 2021; Chuah, Noor, & Singh, 2020). Thus, personal financial management has immense benefits. However, most individuals find personal financial management a difficult undertaking. According to Asih and Khafid (2020) each individual has different personal financial goals and this presents diverse structures that guide them towards achieving such goals.

Individuals explore tools and methods that enable them achieve financial freedom. One such facet that scholars have tabled as a driver of personal financial management is financial literacy (Waliszewski & Warchlewska, 2021; Morgan & Long, 2020; Anshika, Singla, & Mallik, 2021).

Studies done on managing finance by professionals have showed that various factors influence finance management. For instance, Torsten, et al. (2022) analysed precautionary saving practices among professional footballers and found out that professional footballer face saving uncertainties. This is not in tandem with the expectations considering that football career is a high-risk career that end prematurely. Hence, managing finance includes saving practices in order to sufficiently protect oneself against financial risks. Research of also Wisnu, et al., (2023) revealed that financial literacy affects individuals in different fields. This is because financial literacy knowledge boosts personal financial decisions relating to investments, savings that determine financial welfare. Equally, Lusardi, Hasler and Paul (2021) noted that financial literacy equips individuals with knowledge on making sound personal finance decision enabling them to navigate finance distress. Kumar and Goyal (2020) noted that financial management by professionals is not an easy fete and is controlled by many variables like debt literacy, investing literacy, saving literacy, mortgage decisions and other personal factors.

According to Anshika, et al. (2021) financial management is difficult because it is multi-faceted. For instance, professionals perceived financial knowledge could deviate from actual financial knowledge and therefore fail to achieve the financial stability. Moreover, knowing and practising adequate prudent financial behaviour can be a different ball game. In as much as individuals have knowledge in finance, practising the skills calls for apt consideration. Chuah, and Singh (2020) notes that lack of adequate financial skills puts people into unmanageable debts which compromises financial wellness. Other challenges that professionals face in personal finance management relate to investments and debt servicing. For instance, Dave (2023) notes that physicians face challenges in repayment of student debts, investing and meeting their insurance needs even where they earn good salaries.

Therefore, earning a good income does not necessarily lead to better financial management. In absence of sufficient financial literacy individuals are unable to lead financially viable lives. Dewi, et al., (2020) views that financial literacy vitally equips individuals with skills to plan how to earn, spend, save and invest for financial prosperity.

### **1.1.2 Financial Literacy**

Financial literacy has been defined in several ways. In some cases, it is taken to infer the awareness, skill and financial behaviour that an individual exhibits (Nsiah & Agyei, 2018). Other scholars consider financial literacy as capability to make appropriate financial decisions (Adetunji & West, 2019). The information, abilities, conduct, and mindset regarding money denotes financial literacy as per Organization for Economic Co-operation and Development (OECD) definition. This definition fits the study's objectives after all viewpoints were carefully considered and the feasibility of using the concept to research was determined (OECD, 2017). Moolman (2020) observed that because most professional athletes begin their careers when they are still in their teens and frequently lack financial literacy in areas like budgeting and financial planning, most of them make unsustainable financial decisions. This is concerning since a professional athlete's career is marked by a sudden increase in income that is followed by a sudden decrease in income once they leave from competitive sports.

Globally, Lusardi, Hasler and Paul (2021) notes that even in some of world's biggest economies like the United States, financial literacy is low and this makes it futile for individuals to outline sound financial decisions. As such, financial literacy poses major considerations for researchers around the world. It is intriguing in the sense that it without financial skills, it would be difficult to make financial decisions. These decisions are in the form of risk understanding, insuring, investing, earning, consuming, savings and borrowing (Lusardi, Hasler, & Paul, 2021). In Ghana, a study by Owusu et al. (2023), demonstrated the poor financial management and low level of financial understanding among football players. The results indicated that encouraging football players to adopt appropriate financial practices requires a strong foundation in financial literacy.

Financial literacy opens an individual to endless possibilities in the world of money considering that it is a concept that aids in effective use of money. It is not one-point action, but is a lifelong skill that individuals use in earning, saving and investing financial resources to achieve desired ends. It is the basic foundation of financial freedom as a person who is literate is able to generate wealth by use of available resources (Akinyede, Owoabi, & Akinola, 2017). This ability to decipher information and use it to make some robust financial decisions is of key concern to individuals regardless of age or background. For instance, a person can inherit so much money but without apt financial skills, they may not be able to multiply them. Therefore, financial literacy forms the fabric to a fulfilled financial life.

Whilst financial literacy is a crucial skill, there is no standard way of acquiring the skills that qualify individuals as financially literate. For instance, individuals can get the literacy from various sources such as attending training, reading written materials, watching television programs or seeking professional guidance in matters finance. All in all, these skills must be put in practice for a person to be considered as financially literate (Anshika, Singla, & Mallik, 2021). However, there is so much information that is available in regard to financial information, while some can be essential and other misleading. For this reason, reliable financial information must be relevant to the case, depending on whether it is valid for use or not. Again, there are so many financial products and services that are available for investments and if individuals are not careful, it may lead to poor decisions.

Where individuals lack financial literacy, their chances of making worthy decisions in respect to money is critically flawed. Therefore, financial literacy equips a person with the knowhow to use information for effective decision making. For instance, it is vital for a person to distinguish between long term and short term financial desires and how the two can be interlinked. In absence of these robust skills, financial decisions are made haphazardly and this does not improve the financial muscles of a person (Abeyrathna, 2020). Moreover, lack of financial literacy is a catalyst to poor spending, poor investing and saving decision which occasions financial instability. In this aspect, poor financial literacy is a receipt for negative consequences considering that an individual is unable to develop and implement financial strategies for his/ her wellbeing.

Kenya's financial landscape is dynamic. However, financial literacy among her adult population stands low at 38 percent (Global Financial Literacy Survey, 2022). As a result, people have poor savings and investments culture leading to alarming rates of poverty. This is against the Sustainable Development Goals that seek to eliminate poverty through sustainable development. Lindahl and Mokvist (2020) argue that financial literacy in Kenya entails financial knowledge that in turn is used in prosperity of individuals and business entities. Hence, increase in financial literacy improves socio-economic profiles of individuals. Meanwhile, Omosa (2023) views that Kenya suffers from high levels of poverty due to widespread use of indigenous financial knowledge instead of use of robust financial literacy pedagogies. This discontentment reveals that there is need to conduct more empirical works in respect to antecedents of financial literacy in Kenya.

Moolman (2020) asserts that financial literacy can help professional athletes attain sustainable financial stability which is important because the athletes often retire early and may find it challenging to find fulfilling post-athletic careers. The three ideas of financial knowledge, financial behavior, and financial attitudes are combined to form financial literacy, according to OECD (2017). These are the concepts that this study has used. Financial literacy is a process that is guided by the results that are sought. In this aspect, financial literacy focuses on goals and activities are outlined. Financial literacy is achieved when financial goals are attained and this process repeats itself when more goals are set. Therefore, there is no conclusive position that a person can be said to be financially literate. Moreover, financial goals change from time to time depending on socio-economic status of an individual. For instance, investing skills can only be practiced if someone have resources earned that can be invested. It is the ability to establish actionable tasks that ultimately determines a person's financial literacy levels.

### **1.1.3 Digital Literacy**

Digital literacy is the critical knowhow of using technologies in accessing information. Chan, et al., (2017) note that digital literacy is concerned with use of technology to synthesis information to generate value from it. In this aspect, one has digital literacy if they have digital skills that not only refers to use of digital media but also utilisation of knowledge from the digital media. Therefore, the search, interpretation and use of information from digital media plays a major role on digital literacy. In the modern times, ICT has revolutionised the way things are done.

For instance, there is vast information from the internet that has improved people's knowledge. Digital technologies also provide paths for acquiring knowledge (Krish, et al., 2018).

The OECD (2018) highlights the importance of digital technology in improving financial literacy. It is concerned with utilizing online financial resources for complex mathematical operations and financial product comparisons. According to Moolman (2020), an emerging trend in financial management is the use of online advisors known as "robo-advisers," which function similarly to online investment advisers or financial planners at a far lower cost. According to Declan, Donal and Elaine (2021) digital literacy helps individuals to navigate through various technologies in the search of information. For instance, knowledge about performance of stocks can be obtained through digital media. Furthermore, the digital media has information on investment opportunities that individuals can take up. Therefore, using digital gadgets can help investors make better decisions, access new markets, and enhance their personal financial management. Thus, the aim of this study is to ascertain whether the relationship between financial literacy and personal financial management is moderated in Kenyan athletes who use digital information.

#### **1.1.4 Athletes in Kenya**

Kenya is a global icon when it comes to athletics. Kenyan athletes have won major races around the world including setting World records for some of the most competitive races in the world. As at 2024, Kenyan athletes that have set world records included David Rudisha in 800m that was set in the UK on 2012, late Kelvin Kiptum for 42km marathon set in the US on 2023 among many others (Athletics Kenya, 2024). Athletics is a well performing career as it pays well for most of the athletes. Regardless of this, many Kenyan athletes have found themselves in financial difficulties and in social problems due to the sudden change in status. In absence of robust personal financial management practices, the windfall gains from competitive races turns more of curse than a blessing.

Reports show that athletes in Kenya make poor financial decisions. For instance, in Elgeyo Marakwet County, 63 percent of athletes do not have saving accounts while 62 percent lacked a retirement plan (Biwott, Sakataka, & Wanyonyi, 2019). This is an indication of poor financial management among athletes.

Moreover, Magut (2024) noted that Kenyan athletes need to manage their finances to avoid plunging into poverty even after becoming overnight millionaires. Without robust financial management plans, the wealth earned by athletes becomes a distant memory. It is a common thing to see athletes in Kenya in abject poverty or experiencing critical financial woes with no much to show after their glory days in the track and field (Korir, 2023).

### **1.1.5 Iten Town in Kenya**

Iten town is located in Uasin Gishu County. The town is a high-altitude region, 2400 metres above sea level and about 450 kilometres from the capital, Nairobi. The training camps are located within the town and some outside and attract local and international athletes. The camps offer training sessions for upcoming athletes and it is here that they meet seasoned athletes who inspire them for greatness. The town's contributions to the sport earned it a 2020 Heritage Site designation from the World Athletics governing body. Iten has developed into a significant center for the global sports industry (Kovač, 2023). Data from a sample of the athletes at the various training camps was gathered for the study. Iten was chosen because it holds Kenya's biggest training camps for athletes. Additionally, the camps are expertly planned and run, complete with support teams and training experts (Kenya Experience, 2024).

### **1.2 Statement of the Problem**

Around the world, personal financial management among athletes is a challenge. The overarching desire of professionals is to accrue sufficient financial resources to cater for their needs (Moolman, 2023). In this aspect, robust personal financial management would go a long way towards improving their financial welfare. However, this is not always the case, as most have ended up being in critical financial distress (Hong & Fraser, 2021; Moolman, 2023). According to McCoy, et al., (2019) athletes have little time to focus on financial literacy considering their fast careers that can start at an early age. In Kenya, financial literacy among adult populations stands at paltry 38 percent (Global Financial Literacy Survey, 2022). This means that over 60 percent of adults do not have financial skills that relate to debt management, budgeting, saving and investing skills. Akinyede et al., (2017) delved on financial literacy and money management in Nigeria.

From the results, it emerged that financial literacy comprises of savings, investment, spending and budgeting skills and have a positive contribution on personal money management. The study is informative but did not consider digital literacy as a facet in financial literacy as it was done in this study. Anokye and Siaw (2017) delved into financial literacy and financial planning of retirees. The findings indicated that the number of dependents, family support, investment planning, financial behavior, and financial literacy all had an impact on retirees' financial wellbeing. In contrast to current professional athletes, the study's focus was on retirees who may not be able to provide a significant amount of revenue in the future. Zerihun and Makgoo (2019) conducted a study to evaluate young people's financial management and financial literacy in South Africa. The findings indicated that borrowing and saving abilities were critical competencies that impacted financial management. This study was conducted in Kenya, where investment habits and culture may differ from those in South Africa, which creates a contextual gap.

In spite of empirical works being available, the specific case of professional athletes in Kenya has not been adequately studied. Empirical works have shown that financial literacy aids in poverty eradication, consumer protection and boost socio-economic welfare of individuals (Koomson, Ansong, Okumu, & Achulo, 2022; Musau, Muathe, & Mwangi, 2022). Mbarak's (2022) study examined the connection between financial literacy and the personal financial management (PFM) of KRA employees. According to the findings, PFM increased with financial knowledge. Abere (2018) studied how financial literacy helped Mombasa County law firm staff members handle their finances better. The results showed that financial management on an individual basis is significantly improved by financial literacy. Expertise in investing, budgeting, and saving, in particular, improved personal money management. The studies that are mentioned provide insightful information on how professionals handle their finances; yet, professional athletes face unique difficulties because most of them gain significant riches at a young age and some of them may not have finished high school. Therefore, the focus of this study was on financial control, financial behaviors, and financial understanding. It also looked at whether digital literacy have moderates the relationship between financial literacy and individual money management among Kenyan athletes.

### **1.3 General Objective**

This study's main goal is to ascertain how financial literacy affects Kenyan athletes' individual financial management.

#### **1.3.1 Specific Objectives**

The specific objectives of the study include;

- i. To investigate the effect of financial knowledge on personal financial management among athletes in Kenya.
- ii. To establish the effect of financial behaviours on personal financial management among athletes in Kenya.
- iii. To establish the effect of financial control on personal financial management among athletes in Kenya.
- iv. To investigate the moderating effect of digital literacy on the relationship between financial literacy and personal financial management among athletes in Kenya.

### **1.4 Research Questions**

The study sought to answer the following research questions;

- i. What is the effect of financial knowledge on personal financial management among athletes in Kenya?
- ii. What is effect of financial behaviours on personal financial management among athletes in Kenya?
- iii. How does financial control affect personal financial management among athletes in Kenya?
- iv. Is there moderating effect of digital literacy on the relationship between financial literacy and personal financial management among athletes in Kenya?

### **1.5 Scope of the Study**

The theoretical aim of the study is to link financial literacy and personal financial management among Kenyan athletes. It also examines the relatedness between personal financial management and financial literacy and how digital literacy affects it. The study employed cross-sectional data from a sample of professional athletes from Kenya.

The study's predictors are three things: financial knowledge, financial behavior, and financial control. The dependent variable is how well one manages their personal finances. The study took place in Kenya between September 2023 and May 2024. The information that was gathered came from athletes.

## **1.6 Significance of the Study**

The study's findings have practical implications for sports individuals, sports regulators and contributes to research and academia.

### **1.6.1 Sports Professionals**

The findings can also be of value to professionals in other sports in Kenya such as rugby, boxing and in football who may learn on how to undertake personal financial management.

### **1.6.2 Sports Regulators**

The Ministry of Sports and Athletics Kenya and the Government of Kenya, among other policymakers can acquire valuable feedback that may help in better understanding the importance of financial literacy among athletes. The findings can provide evidence-based recommendations for policies and programs that encourage Kenyan athletes, professional athletes, and other athletes to practice improved personal money management and financial literacy.

### **1.6.3 Researchers and Academia**

The study contributes to the corpus of knowledge regarding financial literacy, personal financial management, and digital literacy in developing countries. As a result, the study may address the differences in financial literacy and personal financial management among professional athletes from Kenya. Furthermore, the results offer valuable empirical backing for upcoming financial literacy investigations conducted by academics and other learners.

## **1.7 Chapter Summary**

As the introductory chapter, it concentrated on the problem statement, research objectives, and study background. The purpose of the study is to ascertain how financial literacy affects Kenyan athletes' individual financial management. The chapter also includes research questions, outlines the study's parameters, and analyzes the research's importance.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

The literature review is the main topic of this section. Different literature is discussed in this way, ranging from theoretical to empirical. This part also includes an operationalization framework. The relatedness among variables is equally presented on a conceptual framework. At the end, a summary of this chapter is made.

### 2.2 Theoretical Literature

In research, theories provide an explanation on key variables and concepts that are investigated. Moreover, theories offer guidance on formulation of hypothesis that aid in providing answers to the research problem. The study backed up by two theories: Theory of Planned Behaviour and Social Learning Theory

#### 2.2.1 Social Learning Theory

Bandura (1977) articulated Social Learning Theory with the intent of elucidating on individuals learning and behaviour. This theory's central claim is that learning is a cognitive process that happens when people engage in social interactions. Put differently, learning occurs when someone observes what others do and then applies that information to generate value through modeling. Moreover, the theory posits that social interactions are key in spread of knowledge in the societal as people learn by observing and imitating others. For this reason, learning is a cognitive process which is doubly influenced by social interactions and presence of reinforcement (Schunk & Maria, 2020; Almulla & Rahmi, 2023).

The theory posits that learning is an active process where the learner is not passive. Thus, learning is not only behavioural but a process influenced by societal context. In addition, the theory indicates that learning is more prevalent where consequences of behaviour are observed through vicarious reinforcement (Dace, Stibe, & Lelde, 2020). Hence, learning is type of stimulus-response kind of a process that principally entails observation, extraction of information, decision on information and practise of the behaviour. However, this does not necessarily mean that for learning to have occurred, a change in behaviour must be evident. Yang and Wendian (2022) note that observational modelling or learning is based on reciprocal determinism where a person learns from the environment and the result of learning is instant or delayed.

Social learning theory has several pros. The theory provides a sound and natural consideration of how learning occurs. The theory posits that learning occurs through social interactions. Individuals get to learn new skills by observing peers in their communities (Almulla & Rahmi, 2023). In a natural set up, this is what happens as individuals are constantly learning by observing what happens in their environment. Secondly, the theory offers practical ways of sharing knowledge among people and in organisations. The theory indicates that sharing information, skills and knowledge is a day to day affair and therefore offers opportunity for sharing knowledge. Moreover, the theory indicates that there is better retention through social learning. What people observes tends to stick easily more than what they are formally trained. The conscious and unconscious learning improves knowledge retention (Dace, Stibe, & Lelde, 2020).

Although Social Learning Theory has been used in research, it has a number of drawbacks. Firstly, the theory posits that learning is a function of the environment. However, a change in environmental conditions does not necessarily result to change in behaviour due to learning. Secondly, human behaviour and learning is a complex process which the theory has oversimplified (Zhou, Qin, Zhang, & Cao, 2023). For instance, innate characteristics of individuals can influence actions and thus learning by people. For example, biological traits of individuals are key aspects that influence learning and this has not been factored in Social Learning Theory. Thus, the interplay between the individual, environment, society and behaviour is loosely interconnected.

This theory is relevant as it provides information on how individuals acquire knowledge. Hence, the tenets of Social Learning Theory aids in understanding how financial literacy learning happens among professional athletes. To start with, professional athletes start their careers early and therefore, rarely have high academic qualification. Thus, professional athletes are more likely to learn through social learning by interactions with peers and others. Through this learning they can learn key financial skills which could shape their financial behaviours. Secondly, social learning theory indicates learning is dependent on the environment considering that individuals learn through observation and imitating others (Chen, Cao, & Liang, 2023). It therefore offers subtle information in relation to availability of financial information in Kenya and how this availability or lack of it influences acquisition of financial skills. Therefore, the theory also underpins digital literacy variable.

### **2.2.2 Theory of Planned Behaviour**

Azjen (1991) created the planned behavior theory. It makes the assumption that three principles—attitudes, subjective norms, and behavioral control—direct people's reasonable behavior. The three factors exert control over an individual when they decide how to behave or not behave. Therefore, attitudes, norms, and beliefs all influence behavior. In explanation, the theory defines attitudes as extent in which an individual considers an action favourable or otherwise (Steinmetz, Knappstein, Azjen, Schimdt, & Kabst, 2016). Thus, there could be positive attitudes where an individual is inclined towards a certain behaviour or negative attitudes where an individual is disinterested in acting in some way. Subjective norms are factors that are dynamic from one person to another and depends on whether a person is convinced that the behaviour is acceptable by peers or not. Perceived behavioural control is a measure of ease or difficulty in behaving in a certain way which is dependent on prevailing environmental situations (Leeuw, Valois, Azjen, & Schmidt, 2015).

One tenet in this theory that has recently sparked curiosity in research for social behaviours is the aspect of perception of behavioural control. It is considered that where an individual feels they have control over some behaviour, the more the impetus to behave in that specific way. In contrast, where individuals' perceived control is less, individuals act in a particular way. According to Abid and Jie (2023) the rule of thumb is that a positive attitude with a favourable subjective norm coupled with a greater perceived control, the more likely do individuals behave as per the behaviour in consideration. Therefore, the intention to behave depends on beliefs, attitudes and behavioural control.

The theory of planned behaviour has been pros. To start with, the theory can be used to predict behaviour in a wide range of context. Therefore, the theory has a wide usage in helping understand what influences people to behave in some ways or change in behaviour. Secondly, the theory considers role of subjective norms in influencing intentions and behaviours (Benedickt, Marcus, & Roman, 2019). Subjective norms are key factors in all human behaviours. In addition, the theory can be used in different cultural set up as it factors in role of social norms in influencing human behaviours. Individuals do not live in isolation and therefore the role of beliefs should be considered in studies and theories of behaviours. This theory does not fall short of this as it considers behavioural, normative and control aspects in its conceptualisation.

Lastly, this theory does not require technical knowledge to apply it in different fields. It is designed in concepts and variables that can be understood easily and this has boosted its wide use in human behaviours (Abid & Jie, 2023; Sarah, et al., 2019).

Whilst the theory of planned behaviour offers plausible explanations in relation to human behaviours, it still suffers from a few flaws. For instance, Alhamad and Donyai, (2021) note that the theory does not resonate that attitudes are not the only cause for behaviours because needs drive attitudes. In other words, the theory does not explain the cause or source of favourable or unfavourable attitudes that later influence human behaviour. For instance, a professional athlete may have a positive attitude towards investments but still fail to invest because they lack sufficient resources. Furthermore, the theory is unable to account for how emotions impact attitudes and intentions. Making decisions is heavily influenced by emotions. Finally, the theory postulates that attitudes, norms, and perceived control all play a role in human intents and social behavior. This isn't necessarily the case, though, as attitudes can affect goals (Sussman & Gifford, 2019).

The theory of planned behaviour is relevant in this study because it expounds on the independent variables: financial behaviours and financial control. The study endeavours to link financial literacy measures to personal financial management among athletes. The theory offers a sound framework that defines how individuals act, and what guides their actions (Bosnak, Azjen, & Schimdt, 2020). According to the theory, attitudes, perceived behavioral control, and subjective norms serve as the foundation for individual behavior. Thus, individuals may actively consider these factors or evaluate them subconsciously before engaging in a certain behaviour. As such, this theory is essential as it provides information on what may influence professional athletes' financial behaviours and financial controls.

### **2.3 Empirical Review**

Examining the body of research and identifying any gaps in knowledge is the main goal of an empirical review. In essence, it is done on variables to highlight the current study's interest and breadth.

### **2.3.1 Financial Knowledge on Personal Financial Management**

Moko, et al. (2022) investigated the evidence supporting the relationship between financial literacy, attitude, and personality with regard to financial management for Malaysian youth entrepreneurs. The research collected primary data from 150 participants. Regression analysis results revealed that while financial attitudes and personality have a substantial impact on financial management among young entrepreneurs, financial knowledge had no significant effect on it.

Yap, Komalasari and Hadiansah (2018) investigated the effects of financial attitudes and financial literacy on married people's money management practices in Kelurahan Sepanjang Jaya, Bekasi. Data was gathered from 200 couples that were selected using the non-probability sampling method. Regression estimates were derived during the results process. The study found that married people's money management behaviors were significantly influenced by their financial attitude and financial literacy.

Nazah, et al., (2022) conducted a study to find out how financial attitudes and literacy affect the way people manage their money among students receiving UKT scholarships. Data on 81 pupils were gathered. The linear regression model was employed for the analysis of the gathered data. The results of the study showed that financial literacy had a favorable and significant influence on financial management behavior, but financial attitudes had no effect on it.

Morgan and Long (2020) examined the relationship between Laos' savings culture, financial inclusion, and financial literacy. First-hand information was obtained from people. The results of the study showed that financial literacy enhanced people's savings habits. Furthermore, it was discovered that financial literacy allowed people to assess different savings platforms.

Ameliwati and Setiyani (2018) conducted research in Indonesia to determine the relationship between financial management and attitude. The study also connected financial decisions to financial socialization and experience. 278 students at the State University of Semarang provided the data. The data that was gathered was analysed using path analysis. The study's findings indicated that financial attitude, financial socialization, financial literacy, financial experience, and financial management behavior were all positively correlated.

Bongomin, Ntayi and Malinga (2020) investigated the relationship between personal financial management, inclusiveness, and financial literacy. Information was gathered from a sample of 5,000 impoverished Ugandans who live in rural areas. The results of the study showed that social networks, financial inclusion, and financial literacy enhanced individual financial management.

### **2.3.2 Financial Behaviours on Personal Financial Management**

Arianti (2018) investigated the impact of financial behavior and financial literacy on investment choices. Questionnaires were used to gather data from a sample of one hundred pupils. Statistical analysis, multiple regression, the f test, the t test, the coefficient of determination, the classical assumption test, and the data quality test were used to analyze the gathered data. According to the data's findings, financial behavior significantly influenced investment decisions whereas financial literacy had no discernible effect.

Rai, Dua and Yadav (2019) examined the connection between working women in Delhi, India, and their financial knowledge, behavior, and attitude. A standardized questionnaire was utilized to gather information from 394 working women in the sample. Utilizing structural equation modeling, the gathered information was examined. Results showed that money management was improved by financial literacy. Furthermore, the working women's money management was significantly moderated by their financial attitude and behavior.

### **2.3.3 Financial Control on Personal Financial Management**

Yong, Yew and Wee (2018) examined the relationship between young working persons in Malaysia and their financial attitude, knowledge, behavior, and financial literacy. A sample of 1915 young working adults provided data, which was subsequently analyzed using structural equation modeling. The study's findings showed that financial education had a beneficial impact on financial knowledge, which in turn strongly predicted financial behavior and attitude.

Novitasari et al., (2021) investigated the effects on students' personal financial management of financial literacy, parents' socioeconomic status, and student lifestyle. Questionnaires were used to gather primary data from a sample of 220 pupils. Utilizing structural equation modeling, the gathered data was examined. The results of the data analysis showed that personal financial management was significantly impacted by financial literacy.

Nguyen and Thao (2015) centered on elements that affect individual financial management. Vietnam was the study's location. The findings demonstrated that key variables influencing personal financial management included financial attitudes and knowledge. Additionally, among Vietnamese young, locus of control had an impact on personal financial management.

Meti, et al. (2024) linked personal finance management and financial literacy in Indonesia. Understanding the function of financial ideas and concepts, being able to manage one's personal finances, being able to make financial decisions, and having the confidence to create future plans were the other main goals. Regression analysis was utilized to analyze the primary data for the study, which came from a sample of Halmahera University students. The findings demonstrated that students' personal financial management was unaffected by financial behavior, financial planning, or control.

#### **2.3.4 Digital Literacy and Personal Financial Management**

Kumar, et al., (2023) examined the relationship between financial well-being, digital financial literacy, and skills in India. Five hundred and twelve respondents in the capital provided data for the study. The results, which employed structural equation modeling, showed a clear relationship between financial well-being and financial skills and capabilities. Furthermore, it became clear that the association between financial wellness and financial abilities was directly mediated by digital financial literacy.

Markus, et al., (2023) aimed to investigate millennials' financial management and financial knowledge. Examining financial literacy and assessing educational resources among millennials were the study's goals. A questionnaire was used to collect primary data from college students. Results showed that financial literacy was effective in helping students plan and manage their finances. Moreover, it emerged that effective financial literacy boosted achievement of long term financial goals among the students. Additionally, digital literacy was established to be a major boost in improving financial literacy of the college students. This was because digital resources were easily adopted by the younger generation and this provided them with information bettering their financial skills.

Tiina, et al., (2023) explored financial literacy in the digital age. The study used content analysis where diverse literature was selected. The results of the study demonstrated the close relationship between financial capability and financial literacy. Furthermore, the outcomes demonstrated the critical role that digital technologies played in promoting financial literacy. Therefore, individuals with digital literacy were likely to exhibit sound financial behaviors which better personal financial management. This was because digital literacy boosted financial skills of individuals which made them better finance managers.

#### **2.4 Summary of Literature and Research Gaps**

It has emerged that most studies were not done in Kenya and therefore this leads to a contextual gap (Yap, Komalasari, & Hadiansah, 2018; Nazah, Ningsih, Irwansyah, Pakpahan, & Nabella, 2022; Abeyrathna, 2020). In addition, most studies operationalised financial literacy in form of financial skills and not intrinsic individual behaviours as this study purposes to do. There are studies done in Kenya, but with different variables (Abera, 2018). The goal of the study is to ascertain how financial literacy affects athletes' personal financial management in Kenya in order to close these conceptual and contextual gaps. Financial control, financial behavior, and financial understanding are the input variables. In light of this, the study investigated how digital literacy influences the association between financial literacy and individual money management among Kenyan athletes. Table 2.1 summarizes empirical literature, identifies the gaps and how the gaps are filled in the current study.

**Table 2: 1 Summary of Literature and Research Gaps**

Author and Year	Topic	Findings	Gaps	Focus of Current Study in filling the gaps
Yap, Komalasari and Hadiansah (2018)	Impact of financial literacy and financial attitudes on the financial management behaviour among the married people	Financial attitudes and financial literacy influence financial management	The independent variables were two while the current study has three variables and a moderating	The current study examined role of financial knowledge, behaviour and control on personal financial management and further examine moderating effect of digital literacy on the interlink between financial literacy and PFM
Ameliwati and Setiyani (2018)	Influence of financial attitude, financial socialization and financial experience to the financial management behaviour in Dubai.	Financial attitude, financial socialization, financial literacy, financial experience and financial management behaviour	The study did not look into role of financial behaviour and control and did not look at sports men and women	This study aims at examining financial literacy and further considers moderating effect of digital literacy. Also, the study dwells in athletes in Kenya

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Yong, and (2018)	Yew Wee financial literacy among the young working adults in Malaysia	attitude, knowledge, behaviour and financial literacy	Results showed that both financial attitude and behaviour influence financial literacy	The response variable was financial literacy	In the current study, financial literacy is the independent variable.
Novitasari et al., (2021)	Financial literacy, parents' social economic and student lifestyle on student's personal financial management	Financial literacy was significant in PFM	Financial literacy was significant in PFM	The study was done among students leading to a contextual gap	The current study examines the effect of financial literacy on PFM among athletes in Kenya
Nguyen and Thao (2015)	Factors that influence personal financial management in Vietnam	Findings showed that financial attitudes and knowledge and locus of control were key factors in personal financial management	Findings showed that financial attitudes and knowledge and locus of control were key factors in personal financial management	The study did not look into financial behaviour and also did not consider digital literacy	The current study has three predictors: financial knowledge, financial behaviour and financial control and further examines moderating role of digital literacy

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Meti, et al. (2024)	Financial literacy and personal financial management in Indonesia.	Results showed that both financial control and financial planning and financial behaviour	The study did not explore the role of financial knowledge	The current study has three predictors: financial knowledge, financial behaviour and financial control and further examines moderating role of digital literacy.
Morgan and Long (2020)	Financial literacy on financial inclusion and savings behaviour in Laos.	Financial literacy improves financial management	The study was not done in Africa	The study focuses on financial knowledge, behaviour and control on PFM, case of athletes in Kenya
Bongomin, Ntayi and Malinga (2020)	Social network on the correlation between financial literacy and financial inclusion of the poor in Uganda	The results indicated that social network affected significantly and positively the relationship between financial literacy and financial inclusion	The study had social networks as the moderating variable while the current study has digital literacy	The study sought to find out the moderating effect of digital literacy on the relationship between financial literacy and personal financial management among athletes in Kenya.

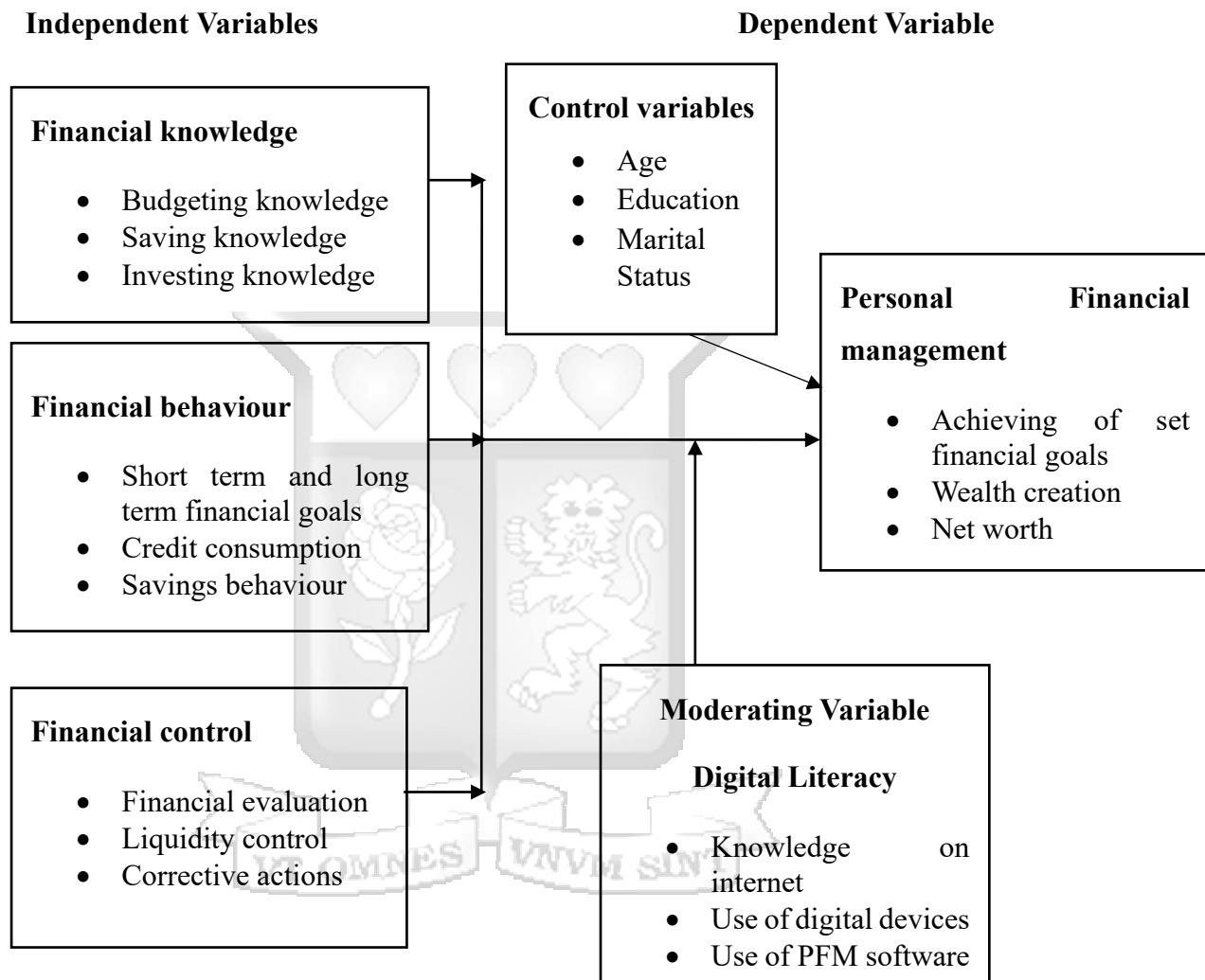
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Rai, Dua and Yadav (2019)	Financial knowledge, financial behaviour and financial attitude among the working women in Delhi India	Financial attitude and financial behaviour have strong association	The study two variables while the current study has an additional variable (financial control) and also was done outside Africa	The current study is based in Kenya
Kumar, et al., (2023)	The study examined role of skills, digital literacy and financial well being in India	The results found a direct link financial skills and capability on financial well-being	The study was done in India and focused on digital financial literacy	The current study is based in Kenya and considers digital literacy as a moderating variable
Tiina, et al., (2023)	Financial literacy in the digital age	The results showed that digital technologies were instrumental in fostering financial literacy	The study was not done in Kenya	The current study is based in Kenya.

Source: Author (2024).

## 2.5 Conceptual Framework

Simply, a conceptual framework diagrammatically illustrates variables. The current study has three input variables and one response variables as Figure 2.1 indicates.



**Figure 2: 1 Conceptual Framework**

Source: (Author, 2024)

## 2.6 Operationalization and Measurement of Study Variables

Table 2.2 focuses on how variables are defined, their indicators, measurement and supporting literature and theories.

**Table 2: 2 How variables are Operationalised and Measured**

Variable	Definition of Variable	Indicators	Measurement of Variable	Supporting Literature	Supporting Theories
Financial Knowledge	This refers to skills necessary in managing finances	Budgeting knowledge Savings knowledge Investing knowledge	5-Point Likert's scale	Yap, Komalasari and Hadiansah (2018)	Social Learning Theory
Financial Behavior	This relates to how actual financial goals are pursued	Short term financial goals and long term goals Credit consumption Savings behavior	5-Point Likert's scale	Arianti (2018)	Theory of Planned Behavior
Financial Control	This refers to review of financial plans and taking	Financial evaluation Liquidity control	5-Point Likert's scale	(Nguyen & Thao, 2015)	Theory of planned behavior

	corrective actions	Corrective actions				
Digital literacy	This relates to knowledge and use of ICT tools such as phones and internet	Knowledge of internet Use of digital devices	5-Point Likert's scale	Asih and Khafid (2020)	Social Learning Theory	
Personal Financial Management	Achievement of financial goals	Wealth creation Net worth	5-Point Likert's scale Likert's scale	Sadalia and Raras (2021)	Social Learning Theory	
Age	This is number of years a person has lived	Number of years	Nominal scale	Control	Control	
Education	This is level of schooling attained by a person	Education level (University, College or basic education)	Nominal scale	Control	Control	
Marital Status	This is whether a person is married or not	Married Single	Nominal scale	Control	Control	

Source: (Author, 2024)

## 2.7 Chapter Summary

The second chapter details literature review from several angles. The Social Learning Theory and the Theory of Planned Behavior are two of the study's hypotheses that were covered at the beginning of the chapter. Second, in order to identify the conceptual and contextual gaps that the current study aims to address, an empirical evaluation of local and global studies was conducted. A tabular summary of gaps and literature reviews has also been included. Finally, a conceptual framework, variable operationalization, and measurement are covered.



## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

The third chapter covers the methods that were used to accomplish the study's goals. The chapter's themes include research design, population and sampling, data collection techniques, data analysis, research quality, and ethical issues.

### 3.2 Research Philosophy

Research philosophy offers sound foundational understanding of how data is sourced, analysed and stored in relation to a phenomenon. Depending on the type of data, methods of data analysis and objectivity, there are four main research philosophies (Shan, 2022; Mason, Marcjanna, Augustyn, & Arthur, 2022). The first one is positivism that considers that a research problem can be addressed carefully by collection and analysis of data. It more often uses numerical data and analysis is often quantitative. The second one is interpretivism whose main concern is that reality is a social construct. In interpretivism, qualitative methods such as interviews are used in synthesis of realities. The third one is pragmatism that focuses on utility of research findings and adopts both quantitative and qualitative methods. Lastly there is realistic philosophy whose goal is to offer divergent concepts in addressing a problem (Watjana, 2016).

This study adopted positivism paradigm for two reasons. Firstly, quantitative data was collected to examine a phenomenon and through this it was expected that predictions could be made regarding personal financial management of athletes in Kenya. Positivism assumes that accurate predictions about social patterns can be made using quantitative methods (Gemma, 2008). Secondly, considering that positivism is associated with quantitative data, then it was possible to obtain more insights on variables. Moreover, positivism is built on the assumption that reality is practically observable and data analysis can yield truth and inferences about what is observed (Park, Konge, & Artino, 2020).

### 3.3 Research Design

The cross-sectional descriptive design was used to inform this study. Information from respondents or participants was gathered all at once. Cross-sectional studies are non-experimental in this sense since data is gathered all at once (Wang & Cheng, 2020). Utilizing a cross-sectional design was further justified by the study's use of quantitative data. Because cross-sectional research collects data and draws conclusions about people at a single point in time, it is analytical in nature. Furthermore, Schmidt and Brown (2019) point out that the use of questionnaires and surveys is more extensive in cross-sectional research designs. The purpose of the current study was to determine the impact of financial literacy on individual financial management using data collected from athletes.

### 3.4 Population and Sampling

Population refers to units that are uniquely identifiable and whom a researcher is investigating (Adam, 2021; Uakram, Chaokromthong, & Sintao, 2021). The target population was professional athletes at Iten Camps. The Athletics Kenya indicated that there are 1500 athletes in Iten area. The study used a formula to determine the sample size. The study adopted the formula developed by (Yamane, 1967):

$$n = \frac{N}{1+N(e)^2}$$

Where the  $n$  proxy sample size,  $N$  is the target population and  $e$  is alpha parameter based on confidence level. Data analysis was undertaken at 95 % confidence level and therefore,  $e$  is 5 %. On substituting, the formula is:

$$n = \frac{1500}{1+1500(0.05)^2} = 316$$

From the quotient, the sample size was 316 athletes. Individual respondents were picked through stratified sampling technique. The sample size for each category was obtained by getting its ratio as per the target population and multiplying by the sample size (316). For instance, the sample size for the first category (women short races) was obtained by dividing 150 by 1,500 and then multiplying by 316. The population was categorised into four strata as shown on Table 3.1

**Table 3: 1 Sample Size**

Category	Description	Target Population	Sample Size
1	Women short races athlete	150	32
2	Women long races athletes	300	63
3	Male short races athletes	550	116
4	Male long races athletes	500	105
	Total	1500	316

Source: Author (2024).

### **3.5 Data Collection Methods**

A questionnaire was used to gather primary data for this investigation. According to Krosnick (2018) a questionnaire is a methodical set of questions or items that are specifically created to gather information about the attitudes, experiences, and opinions of respondents. The questionnaire offered an organized framework for effectively collecting data from many respondents. A standardized questionnaire was used in the study to gather information from participants. Respondents had to rank the statements that were used to measure variables in closed-ended questions on a five-point Likert scale in the questionnaire.

The questionnaire was administered using personal delivery. The researcher travelled to the site for data collection and collected data in person. Considering that the target respondents were talented athletes from local communities, and some did not have ability to speak or read in English, a local translator was recruited to assist in communication. The local translator was thoroughly informed about the study, the goal and the expected data to be collected. The researcher always accompanied the local translator during data collection so that reliable data is collected.

### **3.6 Data Processing and Analysis**

Turning unprocessed data into a usable format for analysis and interpretation is known as data processing and analysis (Vonrhein et al., 2011). The data obtained for this study was loaded into the Statistical Package for the Social Sciences (SPSS) software version 25 after being carefully examined and error-checked. The data was coded, arranged, and analyzed using SPSS, which made it easier to create a quantitative report.

To describe the data, descriptive statistics were produced, including means, standard deviations, percentages, and frequencies. To investigate relationships and provide predictions, inferential statistics such as regression analysis was performed. To determine how many variables, affect personal finance management among the athletes, regression analysis presented the model fitness, examine variance, and display regression coefficients.

This inquiry objects to proof or disapprove the relatedness of finance management as a function of three independent variables (financial knowledge, financial behaviour, and financial control). At the same time, three control constructs were included: marital status, age and education. A control variable in a research project is one that is maintained at a constant level to guarantee that its effects do not affect the relationship between the independent and dependent variables under investigation (Maulud & Abdulazeez, 2020). To arrive at this, the model was written down as;

$$PFM = \beta_0 + \beta_1FK + \beta_2FB + \beta_3FC + \varepsilon \dots\dots\dots (i)$$

Whereas Personal Financial Management was the response variable, FK was financial knowledge, FB was financial behaviour and FC was financial control. The  $\beta_0$  proxies the constant term and  $\beta_1$ ,  $\beta_2$ , &  $\beta_3$  were coefficients for predictors and  $\varepsilon$  was the error term. The SPSS was used to perform regression analysis.

### 3.6.1 Moderating Effect of Digital Literacy

Apart from the previously indicated variables, digital literacy was included in the study as a moderating variable. The study looked at digital literacy to see if it affected the connection between personal finance management and financial literacy. The purpose of this moderation analysis was to investigate if digital literacy can increase or decrease the influence of financial literacy on the results of personal finance management. The combined effect of digital literacy, financial literacy, and their interaction on professional athletes' personal money management in Kenya was evaluated using the regression model that took into account the interaction between the variables.

$$PFM = B_0 + \beta_1FinLit + \beta_2DigLit + \beta_3FinLit*DigLit + \beta_4Gender + \beta_5Age + \beta_6Level\ of\ Education + \varepsilon$$

$$PFM = \beta_0 + \beta_1FK + \beta_2FB + \beta_3FC + \beta_4FK*DigLit + \beta_5FB*DigLit + \beta_6FC*DigLit + \sum controls + \varepsilon \dots (i)$$

Where

*FK\*Diglit* is interaction between financial knowledge and digital literacy

*FB\*Diglit* is interaction between financial behaviours and digital literacy

*FC\*Diglit* is interaction between financial controls and digital literacy

$\Sigma$  *controls* represent controls which are age, education and marital status.

$\varepsilon$  = *error term*

### **3.6.2 Diagnostic Tests**

To validate data and output from regression analysis, a number of assumptions were verified. These include linearity, multicollinearity and heteroscedasticity.

#### **3.6.3.1 Multicollinearity**

Multicollinearity is a condition that exist where one or more independent variables have a linear relationship. Therefore, it refers to existence of strong correlation between predictor variables (Kim, 2019). This tends to escalate the model estimates because it impairs the precision of parameters. In other words, the p-values may be too high which may cause an otherwise significant relationship between predictors and response variable to be insignificant. Multicollinearity was examined by use Variance Inflation Factor (VIF). The degree of linear interaction among predictors is measured by the variance inflation factor (Noora, 2020). A VIF of less than 10 is generally considered to indicate the absence of significant multicollinearity. Data transformation techniques like first differencing or log transformations are used when multicollinearity is prevalent (Kalnins, 2018).

#### **3.6.3.2 Linearity**

Linearity is a measure of direct links between variables, that is existence of linear influence (Karczewski & Jacek, 2017). In essence, it depicts whether response variable is in a linear relationship with the predictors. Therefore, regression estimates observe linearity where the fitted values for the response variable are in line with plugged in values for the predictors. Ignoring linearity is hazardous as it means that the linear predictive ability of the model is flawed. Stated differently, the lack of linearity indicates that a linear relationship between variables cannot be established. Testing deviation from linearity was used in this study to assess linearity.

As a general rule, linearity is present when the p-value of the F-statistic is greater than 0.05 (Hayes & Montoya, 2017). If linearity is absent, data transformation can be done or more predictors can be added to the model to establish linearity.

### **3.6.3.3 Heteroskedasticity**

Heteroskedasticity exist where residuals do not have constant variance. In usual terms, regression estimates are plausible where residuals are homoscedastic failure to which the residuals are scattered leading to spurious results (Halunga, Orme, & Takashi, 2017). This study used Breusch-Pagan Test in examining heteroscedasticity. Ideally, where the B-P statistics has a p-value of less than 0.05, then heteroscedasticity is present. The problem can be addressed by transforming the data into logarithms and if it persists, then standard robust corrected errors regression can be used in reporting regression estimates.

### **3.6.3.4 Normality**

In this aspect, for any fixed value of predictor, the response variable is expected to be normally distributed (Schmidt & Finan, 2018; Das & Imon, 2016). Therefore, normality exists where residuals are symmetrically distributed. The study used Skewness and Kurtosis to examine normality. Ideally, a data set with a normal distribution has skewness values between -3 and +3 and kurtosis values between -10 and +10. Presence of normality indicates that the underlying pattern has been captured and therefore the link between input and output variable can be established as errors are basically random and independent (Knief & Forstmeier, 2021). Normality can be achieved through first differencing or transformation of data into natural logarithms.

## **3.7 Research Quality**

Research quality ensures that findings are acceptable. In this study, two quality checks were undertaken: validity and reliability.

### **3.7.1 Validity of Research Instrument**

Dulin, Gonzalez, and Campbell (2014) the degree to which a survey or other research tool accurately assesses the desired constructs or variables is known as its validity. Both content validity and construct validity was examined in order to guarantee the reliability of the questionnaire utilized in this investigation.

A thorough review of the questionnaire by the supervisor in charge of the research development guaranteed content validity. This procedure entails determining whether

the questionnaire sufficiently addresses all pertinent facets of the research issue and is in line with the goals of the study. The supervisor evaluated the questionnaire's statements for relevance and make appropriate adjustments based on their recommendations. This process helps ensure that the questionnaire effectively captures the key aspects related to financial knowledge, financial behaviour, financial control and digital literacy. By ensuring content validity this study established the validity of the questionnaire, contributing to the credibility and accuracy of the research outcomes. It ensures that the questionnaire accurately measures the intended constructs and provides confidence in the findings and conclusions drawn from the data collected.

### **3.7.2 Reliability of Instruments**

Cronbach (1951) the degree of consistency and stability in the measurements derived from a research instrument or questionnaire is known as reliability. The Cronbach alpha coefficient was used to evaluate the questionnaire's reliability in the current investigation. The internal consistency of a questionnaire's items is measured by the Cronbach alpha coefficient. Higher internal consistency and reliability of the questionnaire's items are indicated by a Cronbach alpha coefficient that is closer to 1. Variables in this study that have a Cronbach alpha coefficient of 0.7 or higher—a sign of strong internal consistency and reliability was accepted. The study evaluated the questionnaire's reliability and make sure the items consistently measure the target constructs by computing the Cronbach alpha coefficient. This evaluation offers important information about how the questionnaire's metrics hold up over time and among respondents. A legitimate and robust study's conclusions are supported by the credibility and dependability of the research findings, which are enhanced by a reliable questionnaire. This study guarantees that the measurements received from the research instrument are dependable and can be relied upon for making meaningful interpretations and drawing conclusions. It does this by evaluating the questionnaire's reliability using the Cronbach alpha coefficient. The results are shown on Table 3.3 revealing that the tool had internal consistency as the Cronbach's alpha were more than 0.700

**Table 3: 2 Reliability Statistics**

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Financial Knowledge	.810	.806	7
Financial Behavior	.835	.829	7
Financial control	.841	.843	7
Digital literacy	.990	.990	7
Personal Financial Management	.963	.963	7

Source: Pilot Data (2024)

### 3.7.3 Pilot Test

Biocca, Harms, and Gregg (2001) characterize a pilot study as an early, scaled-down version of the primary study, sometimes known as a test or trial run. A pilot study's goal is to improve research tools and protocols so that participants can comprehend the questions and give precise, insightful answers. It provides an invaluable chance to find any possible problems, uncertainties, or weaknesses in the research design, enabling researchers to make the required corrections prior to moving forward with the larger study. According to Petersen, Schmidt, and Bullinger (2004), the pilot research typically entails choosing a sample size that is approximately 10% of the desired sample size of the main study. In this instance, the pilot study, which took place in Iten Camp, used a sample of 22 professional athletes. The validity and reliability of the research instruments was evaluated by carrying out the pilot study in Iten Camp in order to make sure that they accurately measure the target constructs and produce consistent results.

### 3.8 Ethical Considerations

A number of ethical considerations were observed in this study. Ethical considerations confer legitimacy and acceptance of research and its findings (Mohd, 2018). Firstly, approval from Strathmore University Institutional Ethics Review Committee (SU-ISERC) and a research permit from National Commission for Science, Technology and Innovation were obtained. In addition, informed consent ethical requirement was observed where respondents were recruited freely and were briefed on all material issues of the study. Lastly, confidentiality was observed so as to ensure that data was protected from abuse.

### 3.9 Chapter Summary

In the third chapter, research philosophy was discussed, with positivism being indicated as the most suitable for the study. Target population, sampling, and cross-sectional research design were also covered. In addition, the chapter discussed data processing, data gathering, and study quality before concluding with ethical issues.



## CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

### 4.1. Introduction

The fourth chapter entails presentation of research findings and discussions emanating thereof. To this end, this chapter presents the response rate, respondents profile, findings on objectives using descriptive statistics and results of inferential statistics.

### 4.2. Response Rate

This study's target population was 1, 500 athletes from which a sample of 316 was selected for data collection. During data collection, a total of 223 athletes participated in the study giving rise to 70.6 % return rate. According to Booker et al., (2021) a return rate of above 70 % is excellent and thus the researcher proceeded to analyze the data

### 4.3. Respondents' Profile

The demographic profile of respondents is an important aspect in studies as it provides information on the characteristics of respondents in terms of age, gender, education and other metrics. Findings for these characteristics are presented hereunder.

#### **Gender**

Output showed that 62.8% of the athletes at the training camps were male while female was 37.2 % of the participants. These results agree with the national outlook in sports where more male participate in sports than female. This disparity is higher than the national statistics where there is a gender gap of 22 % (Athletics Kenya, 2024). Therefore, much more efforts should be done to promote women participation in professional games in Kenya.

#### **Years in Active Athletics**

Table 4.1 has output for frequency statistics on the number of years the athletics had actively participated in athletics. Most athletes, 47.5 %, had engaged in competitive athletics for less than 5 years, 40. 4 % for 5-10 years, 11.7 % for 11-20 years and 0.4 % for over 21 years. This outcome shows that most of the participants in this study were upcoming athletics. In addition, seasoned athletics participated, and this is valuable to the study as it collected data from respondents of varying experiences. Moreover, it emerged that one athlete had been active for over 21 years showing resilience in racing. This is because most athletes are active for up to 15 years and then they retire from competitive racing.

**Table 4: 1 Respondent's Athletics Experience**

Years in active athletics	Frequency	Percent
Below 5 years	106	47.5
Between 5-10 years	90	40.4
Between 11-20 years	26	11.7
Between 21-30 years	1	.4
Total	223	100.0

Source: Survey Data (2024)

### **Age**

The output statistics on Table 4.2 show the respondents age in years.

**Table 4: 2 Age**

	Frequency	Percent
Below 18 years	40	17.9
Between 18-25 years	103	46.2
Between 26-30 years	55	24.7
Above 30 years	25	11.2
Total	223	100.0

Source: Survey Data (2024)

The study's finding on age revealed that most, 46.2 % of respondents were between 18-25 years. 24.7 % of the athletes were aged between 26-30 years, 17.9 % below 18 years and the least.11.2 % were above 30 years. Thus, most of the athletes were seasoned athletes considering that athletes start their career at teenage. In essence, the average active age for athlete is 24 years. Therefore, most athletes who participated in this study were experienced.

### **Education**

Table 4.3 has output frequencies for education of athletes that were engaged in the study. Majority of the athletes, 73.5 % had basic education (primary or secondary), 10.8 % had no formal schooling, 14.3 % had college qualification and 1.3 % had university education. By inference, it means that most of the athletes had little education. It adds up considering that athletics is a talent-based career where individuals do not required education to succeed.

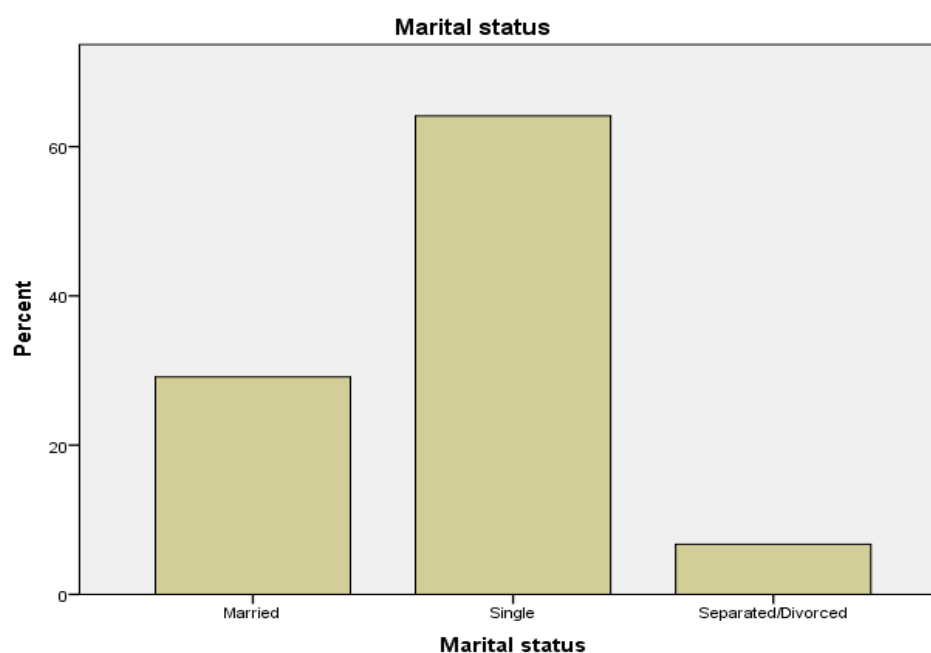
**Table 4: 3 Education**

	Frequency	Percent
No formal schooling	24	10.8
Basic Education	164	73.5
College	32	14.3
University	3	1.3
Total	223	100.0

Source: Survey Data (2024)

### Marital Status

Figure 4.1 shows the marital status of the respondents.



**Figure 4: 1 Marital Status**

Source: Survey Data (2024)

According to statistics on Figure 4.1, most of the participants in this study were single representing 64.1 %, married were 29.1 % and the least 6.7 % were either divorced or separated.

#### 4.4. Findings on Objectives using Descriptive Statistics

This study's main goal was to ascertain how financial literacy affects Kenyan athletes' individual financial management. Results on descriptive statistics are presented in this section.

#### 4.4.1 Financial Knowledge and Personal Financial Management

Financial knowledge is when a person understands financial principles that enable them plan and execute their plans meticulously to achieve financial goals. The respondents were asked whether perceived financial planning was important, whether financial literacy helped them achieve their goals and what inhibited them from achieving their financial goals. Table 4.4 shows the results for on whether financial planning was important.

**Table 4: 4 Importance of financial planning to professional athletes**

	Frequency	Percent
Not important at all	3	1.3
Not important	12	5.4
Can't tell	64	28.7
Important	119	53.4
Very important	25	11.2
Total	223	100.0

Source: Survey Data (2024)

Drawing from the statistics on Table 4.4, majority of athletes perceived financial planning as important representing 53.4 % and 11.2 % indicated very important. This evidences that that the participants appreciated the role of financial planning in their financial dealings. Secondly, 43.5% of respondents indicated that financial literacy was important in helping them achieve their financial, while 11.2 considered it as very important. In contrast 37.7 % of respondents were neutral, 4.9 % considered it as not important and 2.7 % regarded it as not important at all. It shows that many athletes were not aware of financial literacy. This data is shown on Table 4.5

**Table 4: 5 Importance of Financial Literacy in achieving Financial Goals**

	Frequency	Percent
Not important at all	6	2.7
Not important	11	4.9
Can't tell	84	37.7
Important	97	43.5
Very important	25	11.2
Total	223	100.0

Source: Survey Data (2024)

Table 4.6 shows output for factors that inhibit professional athletes from achieving their financial goals.

**Table 4: 6 Factors Inhibiting Athletes from achieving Financial Goals**

	Frequency	Percent
Limited financial knowledge	77	34.5
Poor payments in athletics	61	27.4
Misuse of financial resources	63	28.3
Too many dependents	22	9.9
Total	223	100.0

Source: Survey Data (2024)

The findings show that 34.5% of athletes showed that they had limited financial knowledge, 27.4 % reported poor payments, 28.3 % indicated misuse of financial resources and 9.9 % reported that they had too many dependents. These outcomes show that there is a myriad of challenges that athletes face in personal financial management. Personal financial management requires robust and decisive techniques that improve financial planning to achieve financial soundness. It calls for apt balancing of income and expenditures for austerity. Additionally, 62.8 % of athletes showed that they did not have financial plans while only 37.2 % revealed that they had some bit of financial plans. This stresses the concern that athletes in Kenya do not prioritize their financial strategies which lead to financial difficulties.

On Table 4.7 are results on several constructs that sought to link financial knowledge and personal financial management. First, athletes did not seem to understand importance of financial knowledge (mean=2.99). This means that most were not aware of the role of financial knowledge in furtherance of financial goals. Second, most did not understand value of budgeting knowledge mean (3.60). Additionally, athletes were indifferent on whether they saved for future financial needs (mean=3.11). It is therefore visibly clear that most of the athletes had scanty awareness of financial knowledge. This impairs financial decision making and reduces the efficacy of their earning and spending habits. Moreover, a mean of 2.98 was noted on whether athletes had information on investments which revealed that they did not have it. It therefore meant that athletes were prone to making inappropriate financial moves.

At the same time, athletes neither borrowed wisely nor adhered to their financial plans as per the mean of 3.49 and 3.78 respectively. Indifferent results were obtained on whether athletes actively sought to improve their financial skills as per the mean of 3.72. Financial knowledge is a composite term that refers to skills in generating income, managing expenditure and prompt saving behaviors such that financial goals can be achieved. Without sound financial knowledge, it is increasingly difficult to plan and execute financial plans. Descriptive statistics that associate financial knowledge and PFM are shown on Table 4.7

**Table 4: 7 Financial Knowledge and Personal Financial Management**

Financial Knowledge	N	Mean	Std. Deviation
I understand the importance of financial knowledge	223	2.99	.937
Budgeting knowledge is valuable in achieving financial goals	223	3.60	.752
I know how to save for future financial needs	223	3.11	.914
I have information on investment opportunities	223	2.98	.937
I borrow wisely	223	3.49	.848
I stick to my financial plans	223	3.78	.817
I actively seek financial knowledge to advance my financial skills	223	3.72	.796
Mean		3.38	

Source: Survey Data (2024)

#### 4.4.2 Financial Behaviours and Personal Financial Management

Financial behaviors entail actions or inactions that individuals do or fail to do in so far as financial management is concerned. Several issues were tested, and the results are presented in this section. To begin with, most of the athletes, 58.7 % indicated that they did not monitor their spending habits while 41.3 % did. It therefore reveals that athletes had poor financial habits as their spending was haphazard. Table 4.8 has descriptive statistics for financial behaviors and personal financial management. Foremost, it was noted that most of the respondents did not value good financial behaviors as the mean was 3.47. This means that some of the respondents did not understand the role of robust financial behavior. Also, indifferent result was noted for on whether the respondents paid bills regularly as per the mean of 3.35.

Equally, respondents neither developed short term financial goals nor saved effectively as per the mean of 3.79 and 2.82 respectively. Thus, most athletes had poor financial behaviors. Respondents too were inefficiently in debts as per the mean of 3.41 and were unable to stay off unplanned expenditure as per the mean of 3.30. Lastly, it emerged that it was hard for most athletes to develop long term financial goals as per the mean of 3.41. What the results show is that most of the athletes performed poorly when it came to financial behaviors. This exacerbates challenges in achieving personal financial management considering that they too did not possess significant financial knowledge. The results are shown on Table 4.8

**Table 4: 8 Financial Behaviours and Personal Financial Management**

Financial Behaviours	N	Mean	Std. Deviation
I understand the value of good financial behaviour	223	3.47	.899
I pay my bills in good time	223	3.35	.912
I have developed short term financial goals	223	3.79	.688
My savings behaviour is effective	223	2.81	1.050
I take loans that I can comfortably repay	223	3.41	.930
I stay off from unplanned expenditure	223	3.30	.918
I have developed long term financial goals	223	3.41	.930
Mean		3.36	

Source: Survey Data (2024)

#### 4.4.3 Financial Control and Personal Financial Management

Table 4.9 shows the descriptive statistics for financial control.

**Table 4: 9 Financial Control and Personal Financial Management**

Descriptive Statistics			
	N	Mean	Std. Deviation
I understand the importance of financial control	223	3.74	.746
I evaluate my financial plans periodically	223	3.67	.752
I manage my liquidity well	223	3.65	.744
I take corrective actions where financial plans do not work as expected in a timely fashion	223	3.78	.778
I closely monitor my investments' returns	223	3.31	.821
I am constantly seeking better financial plans	223	4.01	.647
I seek professional financial expert advice on my financial progress.	223	3.65	.744
Mean			

The respondents had a neutral feeling on the importance of financial control as per the mean of 3.74 and standard deviation of 0.746. The methods, guidelines, and regulations that individuals use to keep an eye on and regulate the use, distribution, and trajectory of its financial assets are known as financial controls. Also, the respondents had a neutral feeling on evaluating their financial plans after a particular timeframe as per the mean of 3.67 and standard deviation of 0.752. Regular financial plan reviews offer various advantages that support an individual's long-term financial success and well-being. They give one the chance to analyze their income, expenses, and savings to find areas where they may make improvements. The respondents had a neutral feeling on how they manage their liquidity as indicated by the mean of 3.65 and standard deviation of 0.744. The proactive practice of making sure someone has the money on hand to pay their debts as they become due is known as liquidity management. It has a direct impact on someone's working capital, making it an essential part of financial performance. Individuals that have effective liquidity management plans benefit from positive working capital and effective cash flow. Good liquidity helps individual draw in investors and win over lenders, in addition to assisting them in meeting debt commitments with their liquid assets. The respondents had a neutral feeling on taking corrective actions where financial plans do not work as expected in a timely fashion as shown by the mean of 3.78 whose standard deviation was 0.778. Taking effective corrective measures is essential to guaranteeing optimal personal financial management. These steps not only aid in resolving issues and overcoming obstacles, but they also enhance operational effectiveness and reduce mistakes in the future. The respondents had a neutral feeling on closely monitoring the investment returns as per the mean of 3.31 and standard deviation of 0.821. One should anticipate that over time, both position and investments changes. Verifying that each is operating at its peak efficiency is vital. By reviewing one's asset allocation, one can make sure that their investing approach is still in accordance with their level of risk tolerance. The respondents agreed that they constantly sought for better financial plans as indicated by the mean of 4.01 and standard deviation of 0.647. The first and most crucial step in money management is creating a budget. It is a very basic measurement that has been around for ages. One must know how much they should ideally need to spend each month depending on their wants, lifestyle, and income in order to create a budget. Having this estimate enables one to better manage money and, as a result, allocate finances to savings and spending.

An individual can track and effectively reach their financial objectives without sacrificing their lifestyle if they have more control and awareness over one's spending patterns. The respondents had a neutral feeling on seeking professional financial expert advice on financial progress as per the mean of 3.65 and standard deviation of 0.744. Where one has significant and possibly challenging financial decisions to make, such as approaching retirement, advisors can offer professional help. For instance, to assist one in achieving their short-, medium-, and long-term objectives, an advisor can create a plan for them to follow.

#### 4.4.4 Digital Literacy

Table 4.10 shows the descriptive statistics for digital literacy.

**Table 4: 10 Digital Literacy**

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
I am able to use digital devices such as computers and mobile phones	223	3.65	.750
My knowledge on the internet and what it entails is good	223	3.58	.760
I have personalised personal financial management mobile phone application	223	3.65	.744
I have the ability to search and select financial information from the internet	223	3.64	.745
I practice online safety when using digital devices	223	3.63	.741
I can use computer applications in making financial plans	223	3.62	.725
I can share and communicate using digital technologies	223	3.61	.762
Valid N (listwise)	223		

The findings showed a neutral impact on the respondents been able to use digital devices such as computers and mobile phones as per the mean of 3.65 and standard deviation of 0.750. The capacity to access a wide variety of online materials is a major benefit of digital gadgets. When compared to older techniques, digital gadgets enable jobs to be accomplished considerably faster and more efficiently.

The respondent indicated that they had a neutral knowledge on internet and what it entails as per the mean of 3.58 and standard deviation of 0.760. Proficiency in digital literacy entails the ability to locate, assess, and use data efficiently. A wealth of knowledge is accessible through digital literacy, whether it is for acquiring new skills, conducting academic research, or keeping up with current affairs. The respondents had a neutral feeling on personalizing personal financial management mobile phone application as shown by the mean of 3.65 and standard deviation of 0.744. Depending on the spending patterns and financial objectives of the user, mobile apps can provide tailored financial recommendations and assistance. Users save time and effort by having financial processes like transfers and payments streamlined via mobile apps.

There was indicated a neutral ability to search and select financial information from the internet from the respondents as per the mean of 3.64, 0.745 standard deviation. Information evaluation aids in determining the reliability of the source. One can assess if information is reliable by learning about the credentials, experience, and standing of the author or the source of the information. Online content may be skewed, pushing a certain agenda or offering a single point of view. Before creating own viewpoint, one might evaluate the facts to detect potential biases and take into account different points of view.

The respondents indicated a neutral feeling on practicing online safety when using digital devices as shown by the mean of 3.63 and standard deviation 0.741. We may avoid and lessen the risks that come with using digital platforms, technology, and services by engaging in online safety practices. The respondents showed neutral feeling on the use of computer applications in making financial plans as per the mean of 3.62, standard deviation 0.725. Computerized accounting gives managers and other users inside organizations rapid access to current, accurate financial data, enabling them to keep an eye on and manage corporate activities. The respondents indicated a neutral feeling on the sharing and communicating using digital technologies as per the mean of 3.61 and standard deviation of 0.762. When in-person interactions aren't an option, digital tools can let remote workers and clients feel as though they're in the same room, even if they're hundreds of miles away. This can enhance the client experience and maintain staff engagement everywhere. Instant communication is made possible by technology, doing away with the necessity for drawn-out in-person meetings and textual letters.

#### 4.4.5 Personal Financial Management

Table 4.11 shows output for descriptive analysis of measures used to represent personal financial management.

**Table 4: 11 Personal Financial Management**

<b>Descriptive Statistics</b>			
	N	Mean	Std. Deviation
I understand the importance of personal financial management	223	3.81	.729
I have achieved my financial goals	223	3.88	.726
My financial net worth is adequate for my needs	223	3.90	.749
I have generated wealth as per my financial goals	223	3.81	.731
I have my retirement plan on track	223	3.82	.734
I have sufficient resources for emergencies	223	3.80	.739
My investments are paying off	223	3.83	.742
Mean			

The respondents indicated a neutral feeling on understanding the importance of personal financial management as per the mean of 3.81 and standard deviation of 0.729. Personal financial management is crucial since it aids in decision-making, maximizes earnings, and reduces risks for both individuals and companies. There was recorded a neutral feeling by the respondents on having achieved their financial goals as per the mean of 3.88, 0.726 standard deviation. Financial ambitions are crucial because they may support one's lifestyle and enable one to achieve their career and personal goals. Separating them into short-, medium-, and long-term goals is beneficial.

The respondents indicated that their financial net worth was neutrally adequate to their needs as shown by the mean of 3.90 and standard deviation of 0.749. It's critical to understand ones' net worth for two reasons: It enables one to comprehend their financial status now. It provides one with a benchmark for tracking advancement toward their objectives. The respondents indicated a neutral feeling on having generated wealth as per their financial goals as shown by the mean of 3.81, 0.731 standard deviation. This indicates precisely how much money individuals need for each goal and when they plan to complete them. After they determine their financial objectives, they need to create a strategy for reaching them. As indicated by the mean of 3.82 and standard deviation of 0.734 the respondents had neutral feeling on having their retirement plan on track. An individual may keep tabs on expenditures and allocate savings to support desired lifestyle by creating a retirement budget.

An effective retirement plan covers unanticipated expenses and enables one to continue living the way they have been living in their active life even when they retire. The respondents indicated a neutral effect on having sufficient resources for emergencies as indicated by the mean of 3.80 and standard deviation of 0.739. Unpreparedness for calamities raises the risk of tragic fatalities, financial loss, and long-term social repercussions. Being ready for an emergency helps lessen the associated losses, anxiety, and dread. The respondents had a neutral feeling on their investments paying off as shown by the mean of 3.83 and standard deviation of 0.742. Before making an investment, people should make sure they have saved up an emergency fund and enough capital to cover their regular expenses. Recognize the limitations on liquidity and establish their spending plan.

#### 4.5. Inferential Statistics

Inferential statistics sought to find out the nature and statistical significance of the relationship that exist between financial literacy and PFM, and further establish whether digital literacy moderated the relationship.

##### 4.4.6 Diagnostic Tests

Diagnostic tests evaluate whether assumptions of regression are violated. The results are discussed as follows.

##### Multicollinearity

Multicollinearity is a condition that exist where one or more independent variables have a linear relationship. Multicollinearity was examined by use Variance Inflation Factor (VIF) whose finding is shown on Table 4.12.

**Table 4: 12 Multi Collinearity**

Model		Coefficients <sup>a</sup>	
		Tolerance	VIF
1	Financial Knowledge	.526	1.902
	Financial Behaviors	.500	1.999
	Financial Control	.674	1.483

a. Dependent Variable: Personal\_Financial\_Management

Source: Survey Data (2024)

Results showed that all predictors had VIF of less than 10 and this shows that they were not strongly correlated. Thus, financial knowledge, financial behaviors and financial control were used in analysis as they were independent of each other.

### Linearity

This is a measure of direct links between variables, that is existence of linear influence (Karczewski & Jacek, 2017). Testing deviation from linearity was used in this study to assess linearity. The result of this test is shown on Table 4.13

**Table 4: 13 Deviation from Linearity**

Variable	Sum of Squares	df	Mean Square	F	Sig.
Financial_Knowledge	27.373	18	1.521	4.880	.453
Financial_control	15.173	20	.759	2.501	.251
Financial_Behaviors	31.798	18	1.767	5.563	.486

Source: Survey Data (2024)

As a general rule, linearity is present when the p-value of the F-statistic is greater than 0.05 (Hayes & Montoya, 2017). Therefore, the data showed linearity and it was concluded that it was fit for regression analysis.

### Heteroscedasticity

Heteroscedasticity exist where residuals do not have constant variance. This study used Breusch-Pagan Test in examining heteroscedasticity. The outcome is on Table 4.14

**Table 4: 14 Heteroscedasticity**

Modified Breusch-Pagan Test for Heteroskedasticity <sup>a,b,c</sup>		
Chi-Square	Df	Sig.
15.980	1	.257

a. Dependent variable: Personal\_Financial\_Management

b. Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

c. Predicted values from design: Intercept + Financial\_Knowledge + Financial\_Behaviors + Financial\_control

Source: Survey Data (2024)

Ideally, where the B-P statistics has a p-value of less than 0.05, then heteroscedasticity is present which in the current case was absent. This revealed that the residuals had constant variances and therefore results of regression were valid.

## Normality

Normality exists where observations for variable follow a normal distribution. The study used Skewness and Kurtosis to examine normality and the results are on Table 4.15

**Table 4: 15 Skewness and Kurtosis**

	Descriptive Statistics				
	N Statistic	Skewness Statistic	Std. Error	Kurtosis Statistic	Std. Error
Financial_Knowledge	223	.133	.163	1.864	.324
Financial_Behaviors	223	-.274	.163	1.357	.324
Financial_control	223	-.311	.163	2.507	.324
Digital_literacy	223	-.717	.163	1.386	.324
Personal_Financial_Management	223	-.711	.163	2.162	.324
Valid N (listwise)	223				

Source: Survey Data (2024)

Ideally, a data set with a normal distribution has skewness values between -3 and +3 and kurtosis values between -10 and +10. According to the results, then the data had normal distribution.

### 4.4.7 Estimated Regression Model

The study had three specific objectives: to assess effects of financial knowledge, financial behaviors, and financial control on personal financial management. The regression analysis output for the specific variables is presented in this part.

### 4.4.8 Regression for Financial Knowledge and Personal Financial Management

The regression analysis output for financial knowledge and personal financial management is shown on Table 4.16. The outcome showed that the R square was 0.078 revealing that financial knowledge accounted for 7.8 % of variation in personal financial management. Secondly, the ANOVA showed a p-value of 0.000 which revealed that the model was significant. Also, results showed that financial knowledge had positive significant effect on personal financial management ( $\beta=0.316$ ,  $p<0.05$ ). This finding reveals that financial knowledge enhances personal financial management.

**Table 4: 16 Regression Output for Financial Knowledge and Personal Financial Management**

<b>Model Summary</b>						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	
1		.279 <sup>a</sup>	.078	.074	.640	
a. Predictors: (Constant), Financial_Knowledge						
<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.638	1	7.638	18.624	.000 <sup>b</sup>
	Residual	90.638	221	.410		
	Total	98.276	222			
a. Dependent Variable: Personal_Financial_Management						
b. Predictors: (Constant), Financial_Knowledge						
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.768	.251		11.035	.000
	Financial_Knowledge	.316	.073	.279	4.316	.000
a. Dependent Variable: Personal_Financial_Management						

Source: Survey Data (2024)

#### 4.4.9 Regression for Financial Behaviors and Personal Financial Management

Table 4.17 has the regression output for the financial behaviors and personal financial management. Results showed that an  $R^2$  of 0.021 which showed that 2.1 % variation on personal financial behaviors was influence by changes in financial behaviors. The linear regression model linking financial behaviors and personal financial management was found to be statistically significant as the ANOVA had p-value of 0.033 which was less than 0.05. Moreover, there was positive effect of financial behaviors on personal financial management ( $\beta=0.148$ ,  $p<0.05$ ). This infers that financial behaviors in isolation positively affected personal financial management.

**Table 4: 17 Regression Output for Financial Behaviour and Personal Financial Management**

<b>Model Summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.143 <sup>a</sup>	.021	.016	.660		
a. Predictors: (Constant), Financial_Behaviors						
<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.016	1	2.016	4.628	.033 <sup>b</sup>
	Residual	96.260	221	.436		
	Total	98.276	222			
a. Dependent Variable: Personal_Financial_Management						
b. Predictors: (Constant), Financial_Behaviors						
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.337	.235		14.180	.000
	Financial_Behaviors	.148	.069	.143	2.151	.033
a. Dependent Variable: Personal_Financial_Management						
Source: Survey Data (2024)						

**4.4.10 Regression for Financial Control and Personal Financial Management**

The third specific objective sought to establish the effect of financial control and personal financial management. The linear regression output on Table 4.18 revealed that the R<sup>2</sup> was 0.225 that indicated that 22.5 % of variations in personal financial management was due to changes in financial control. Further, the model was statistically significant as the p-value was 0.000. Moreover, it was noted that financial control had a positive significant effect on personal financial management ( $\beta=0.589$ ,  $p<0.05$ ). This meant that when financial control is considered in isolation, it had positive effect on personal financial management for athletes.

**Table 4: 18 Regression analysis Output for Financial Control and Personal Financial Management**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.474 <sup>a</sup>	.225	.222	.587
a. Predictors: (Constant), Financial_control				

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.120	1	22.120	64.193	.000 <sup>b</sup>
	Residual	76.155	221	.345		
	Total	98.276	222			
a. Dependent Variable: Personal_Financial_Management						
b. Predictors: (Constant), Financial_control						

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.662	.274		6.068	.000
	Financial_control	.589	.074	.474	8.012	.000
a. Dependent Variable: Personal_Financial_Management						

Source: Survey Data (2024)

#### 4.4.11 Overall Regression Analysis

The model estimates are shown on Table 4.16. The R<sup>2</sup> was 0.263 which meant that 26.3% of variations in personal financial management was due to changes in financial literacy components (financial knowledge, financial behaviors and financial control) Thus, other factors account for 73.7 % of changes in personal financial management. Additionally, it was noted that the model associating financial literacy and PFM was statistically significant (F (1, 222) =26.013, p<.05). Hence, financial literacy is significant determinant of PFM. Moreover, the model was estimated as follows:

$$PFM = 1.633 + 0.221FK - 0.275FB + 0.645FC$$

Where 1.633 is personal financial management in absence of study variables, 0.221 is increase in PFM in response to a unit increase in financial knowledge, -0.275 is decrease in PFM in response to a unit increase in financial behaviours and 0.645 is increase in PFM in response to a unit increase in financial control. Therefore, financial knowledge and financial control have positive effect while financial behaviours have negative effect. Further insights showed that all predictors had statistically significant effect on personal financial management.

**Table 4: 19 Regression Model Estimates**

<b>Model Summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.513 <sup>a</sup>	.263	.253	.575		
a. Predictors: (Constant), Financial_control, Financial_Knowledge, Financial_Behaviors						
<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	25.820	3	8.607	26.013	.000 <sup>b</sup>
	Residual	72.456	219	.331		
	Total	98.276	222			
a. Dependent Variable: Personal_Financial_Management						
b. Predictors: (Constant), Financial_control, Financial_Knowledge, Financial_Behaviors						
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta		
1	(Constant)	1.633	.288		5.676	.000
	Financial_Knowledge	.221	.091	.196	2.446	.015
	Financial_Behaviors	-.275	.085	-.266	-	.001
	Financial_control	.645	.088	.519	7.347	.000
a. Dependent Variable: Personal_Financial_Management						

$$PFM = 1.633 + 0.221FK - 0.275FB + 0.645FC$$

Source: Survey Data (2024)

### Regression with Control Variables

The conceptual of the study had three control variables; age, education and marital status. The regression model established that the predictors and the control variables had significant effect on personal financial management ( $R^2=0.279$ ), which showed that 27.9 % of variations in PFM was influenced by changes in the components of financial literacy and the control variables.

Moreover, the model was statistically significant ( $F(1,222) = 15.312, p < 0.05$ ). Further statistics showed that financial knowledge had positive and significant effect on PFM ( $\beta = 0.197, r = 0.089, p < 0.029$ ). Financial behaviours and financial control maintained their nature and level of significance ( $\beta = -0.324, r = 0.085, p < 0.05$ ) and ( $\beta = .710, r = 0.089, p < 0.05$ ) respectively. Age had a negative non-significant effect on PFM ( $\beta = -0.017, r = 0.48, p = 0.729$ ). Education had positive non-significant effect on PFM. ( $\beta = -0.053, r = 0.078, p = 0.498$ ). Marital status had negative effect on PFM ( $\beta = -0.237, r = 0.072, p < 0.05$ ). The regression estimates inclusive of these control variables is shown on Table 4.18.

**Table 4: 20 Regression Output with Control Variables**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.546 <sup>a</sup>	.298	.279	.565		
a. Predictors: (Constant), Marital_status, Age, Financial_control, Education, Financial_Knowledge, Financial_Behaviors						
ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.327	6	4.888	15.312	.000 <sup>b</sup>
	Residual	68.949	216	.319		
	Total	98.276	222			
a. Dependent Variable: Personal_Financial_Management						
b. Predictors: (Constant), Marital_status, Age, Financial_control, Education, Financial_Knowledge, Financial_Behaviors						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.990	.345		5.774	.000
	Financial_Knowledge	.197	.089	.174	2.203	.029
	Financial_Behaviors	-.324	.085	-.314	-3.819	.000
	Financial_control	.710	.089	.572	7.990	.000
	Age	-.017	.048	-.022	-.347	.729
	Education	.053	.078	.044	.679	.498
	Marital_status	-.237	.072	-.198	-3.305	.001
a. Dependent Variable: Personal_Financial_Management						

$$PFM = 1.990 + 0.197FK - 0.324FB + 0.710FC - 0.017 Age + 0.053Education - 0.237Marital\_status$$

Source: Survey Data (2024)

#### 4.4.12 Moderated Regression Analysis

The study equally sought to examine the moderating effect of digital literacy on the relationship between financial literacy and personal financial management. The first step was to run overall regression model with three predictors. The model showed that the  $R^2$  was 0.253 indicating that 25.3 % of variations in personal financial management was influenced by changes in financial knowledge, financial behavior and financial control. The model was statistically significant ( $F(1,222) = 26.013, p < 0.05$ ). All variables had statistically significant effect on PFM. Financial knowledge had positive significant effect significant ( $\beta = 0.221, r = 0.091, p < 0.05$ ), financial behavior had negative and significant effect on PFM ( $\beta = -0.275, r = 0.085, p < 0.05$ ) while financial control had positive significant effect on PFM ( $\beta = 0.645, r = 0.026, p < 0.05$ ).

The second step was to run moderated regression with interaction terms. The results showed that model summary was lower ( $R^2 = 0.256$ ), meaning that 25.6 % of variations in PFM was due to changes in financial literacy moderated by digital literacy. The ANOVA showed that the model was statistically significant ( $F(1,222) = 13.726, p < 0.05$ ). Financial knowledge had positive significant effect significant ( $\beta = 0.003, r = 0.377, p = 0.994$ ), financial behavior had negative and significant effect on PFM ( $\beta = -0.650, r = 0.383, p = 0.091$ ) while financial control had positive significant effect on PFM ( $\beta = 0.913, r = 0.300, p < 0.05$ ). All interaction variables had non-significant affect as shown on Table 4.20. This shows that digital literacy did not moderate the relationship between financial literacy and personal financial management.

**Table 4: 21 Moderated Regression Estimates**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.525 <sup>a</sup>	.276	.256	.574

a. Predictors: (Constant), FC\_DL, Financial\_Knowledge, Financial\_Behaviors, Financial\_control, FK\_DL, FB\_DL

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.127	6	4.521	13.726	.000 <sup>b</sup>
	Residual	71.148	216	.329		
	Total	98.276	222			

a. Dependent Variable: Personal\_Financial\_Management

b. Predictors: (Constant), FC\_DL, Financial\_Knowledge, Financial\_Behaviors, Financial\_control, FK\_DL, FB\_DL

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.202	.458		4.807	.000
	Financial_Knowledge	.003	.377	.002	.007	.994
	Financial_Behaviors	-.650	.383	-.630	-1.696	.091
	Financial_control	.913	.300	.735	3.041	.003
	FK_DL	.062	.104	.344	.598	.550
	FB_DL	.101	.106	.607	.948	.344
	FC_DL	-.115	.077	-.737	-1.492	.137

a. Dependent Variable: Personal\_Financial\_Management

Source: Survey Data (2024)

## **CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

Chapter five focuses on discussions of results of the study. In retrospect, this study sought to establish role of financial literacy on personal financial management of athletes in Kenya. The chapter is arranged in the following order: summary of the study, discussion of findings, conclusions, limitations of the study and recommendations and suggestions for further studies.

### **5.2 Summary of the Study**

Financial literacy among individuals is an important aspect of athletes' life because it effective it improves their financial welfare. However, research had shown that most athletes faced a hard time in managing their finances and this put them in financial difficulties. In spite of empirical works being available, the specific case of professional athletes in Kenya has not been adequately studied. This study's main goal is to ascertain how financial literacy affects Kenyan athletes' individual financial management. The specific objectives were four; To investigate the effect of financial knowledge on personal financial management among athletes in Kenya, to establish the effect of financial behaviours on personal financial management among athletes in Kenya, to establish the effect of financial control on personal financial management among athletes in Kenya and to investigate the moderating effect of digital literacy on the relationship between financial literacy and personal financial management among athletes in Kenya. The study sourced data from two hundred and twenty-three athletes that were selected from training camps in Iten which was 70.6 % return rate. Data analysis was done in both descriptive and inferential statistics. The findings are discussed in this chapter.

### **5.3 Discussion of the Findings**

The study endeavored to associate literacy and personal financial management of athletes in Kenya. Moreover, the study sought to establish moderating effect of digital literacy on the relationship between financial literacy and personal financial management. The response rate for the study was 70.6 %. Results of the study are presented in this section.

### **5.3.1 Financial Knowledge and Personal Financial Management**

The study found out that financial knowledge had positive and statistically significant effect on personal financial management of athletes in Kenya. This means that an increase in financial knowledge better personal financial management of athletes in Kenya. Financial knowledge entails ability to make decisive actions to earn, save and invest so as to achieve financial goals. The prime aim of personal financial management is to achieve financial success. Therefore, financial knowledge plays a significant role in equipping individuals with skills to maximise their financial resources. The results are in congruent with those of Moko, et al. (2022) who found out that financial knowledge betters personal financial management of young entrepreneurs. Nazah, et al., (2022) too found out that financial attitudes influences skills and knowledge and this affects personal financial management. Equally, Bongomin, Ntayi and Malinga (2020) investigated the relationship between personal financial management, inclusiveness, and financial literacy and noted that social networks, financial inclusion, and financial literacy enhanced individual financial management.

### **5.3.2 Financial Behaviours and Personal Financial Management**

The study found out that financial behaviours had negative effect on personal financial management among athletes in Kenya. Additionally, it emerged that the contribution of financial behaviors on PFM was statistically significant. Financial behaviors refer to specific actions or inactions that build financial capacity of individuals. Robust financial behaviors improve financial awareness leading to better PFM. However, in the current state, athletes did not act in the desired manner and this could be the reason it emerged that financial behaviors had an inverse relationship with personal financial management. Moreover, financial behaviour is better when individuals are knowledgeable. These findings are in line with those of Rai, Dua and Yadav (2019) who examined the connection between working women in Delhi, India, and their financial knowledge, behavior, and attitude and noted that working women's money management was significantly moderated by their financial attitude and behavior.

In essence, financial behaviors do not better PFM in isolation. The findings are in contrast with the results of Arianti (2018) who investigated the impact of financial behavior and financial literacy on investment choices and noted that financial behavior significantly influenced investment decisions whereas financial literacy had no discernible effect.

### **5.3.3 Financial Control and Personal Financial Management**

The study found out that financial control had a positive effect on personal financial management of athletes in Kenya. It also emerged that financial control significantly bettered personal financial management. Financial control is a process of review of financial plans and taking of corrective actions in a timely fashion. Thus, if an individual has apt financial control skills they are able to take remedy and correct financial mistakes if they happen. Additionally, financial control is essential in monitoring and tracking achievement of financial goals. For this reason, financial control improves achievement of financial goals which is the end point of PFM. This outcome is in line with the result of Yong, Yew and Wee (2018) who examined the relationship between young working persons in Malaysia and their financial attitude, knowledge, behavior, and financial literacy and noted that financial education had a beneficial impact on financial knowledge, which in turn strongly predicted financial behavior and attitude. Novitasari et al., (2021) too investigated the effects on students' personal financial management of financial literacy, parents' socioeconomic status, and student lifestyle and noted that personal financial management was significantly impacted by financial literacy. Equally, Nguyen and Thao (2015) centered on elements that affect individual financial management and found out that factors influencing personal financial management included financial attitudes and knowledge. Meti, et al. (2024) studied personal finance management and financial literacy in Indonesia and found out that personal financial management was unaffected by financial behavior, financial planning, or control.

## **5.4 Conclusions**

The study endeavored to relate financial literacy and personal financial management. Additionally, it sought elucidate whether digital literacy mediates the association that existed between financial literacy and personal financial management. Pegging on the outcomes, the conclusions are made hereunder.

#### **5.4.1 Financial Knowledge and Personal Financial Management**

The study concludes that financial literacy affects personal financial management of athletes in Kenya. Further, the study concludes that financial knowledge and financial control have positive significant effect on personal financial management of athletes in Kenya. This shows that financial knowledge and financial control are vital components of personal financial management among athletes.

#### **5.4.2 Financial Behaviors and Personal Financial Management**

The study concludes that financial behaviors variable has a negative significant effect on personal financial management among athletes in Kenya. Therefore, the role of financial behaviors is low in respect to personal financial management. It means that financial behaviors of athletes do not boost achievement of their financial goals.

#### **5.4.3 Financial Control and Personal Financial Management**

The study concludes that financial control affects personal financial management of athletes in Kenya. Further, the study concludes that financial control have positive significant effect on personal financial management of athletes in Kenya. This shows that financial control are vital components of personal financial management among athletes.

#### **5.4.4 Moderating Role of Digital Literacy on Relationship between financial literacy and Personal Financial Management**

Lastly, the study concludes that digital literacy did not moderate the relationship between financial literacy and personal financial management of athletes in Kenya. This implies digital literacy did not influence the existing relationship between financial literacy and personal financial management.

#### **5.5 Limitations of the Study**

The major limitation for this study is based on sampling and challenges faced during field activities. Sampling has inherent limitations that the sample may fail to be a representative of the population. However, the researcher sampled from a variety of respondents to have a fair representation of the population. There was a challenge in data collection as most of the athletes could not read or write well in English. This made

data collection tedious and the researcher sought the services of a translator who could speak the local language to translate the questionnaire to the respondents.

## **5.6 Recommendations and Suggestions for Further Studies**

The study recommends that the Athletics Kenya need to conduct robust financial literacy training to athletes in Kenya. The descriptive statistics showed that the athletes had little understanding of financial literacy such as budgeting, savings and investments. If such trainings are done, the contribution of athletes to economic growth and development of Kenya would be high as they get significant monetary prizes in competitions. Secondly, athletes in Kenya need to engage in self-learning activities so that they can acquire knowledge in finance that improves their grasp of personal financial management. This can be done through attendance to formal financial literacy classes in colleges.

Considering that this study focuses on athletes, it is suggested that another study be carried out among other sportsmen and women such as footballers in clubs participating in Kenya Premier League. This adds more knowledge about financial literacy in Kenya and in Africa in general. Equally, the study suggests another study be done using quasi-experimental research design. This is because findings showed that the athletes had poor financial literacy levels. A quasi-experimental design would help to evaluate whether interventions in financial literacy among athletes can improve their personal financial management.

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## APPENDICES

### APPENDIX 1: Letter of Introduction

MERCY CHRONO

C/O STRATHMORE UNIVERSITY,

NAIROBI

26<sup>th</sup> January 2024

**Dear respondent,**

#### **RE: Request to Participate in a Study**

I hope you are well. This letter serves to introduce myself and request you to engage in this study. Firstly, my name is Mercy Cheronon and am pursuing a postgraduate degree at Strathmore University. Secondly, I intend to undertake a study whose aim is to determine the effect of financial literacy on personal financial management among athletes in Kenya. I have developed a questionnaire that will aid in achieving this objective. I kindly request you fill it for me, I will be much grateful when you do it.

Furthermore, I wish to inform you that your participation in this research is voluntary and that I will safeguard all personal information that I will obtain in the course of data collection. Additionally, I will be careful not to dispense the data in any other way other than in achieving the goal of the study. Lastly, it is my pledge that I will protect your identity and your names or personal information will not feature anywhere in the final report.

Yours sincerely,

**Mercy Cheronon**

## APPENDIX 2: Research Questionnaire

### FINANCIAL LITERACY AND PERSONAL FINANCIAL MANAGEMENT AMONG ATHLETES IN KENYA: MODERATING EFFECT OF DIGITAL LITERACY

#### Introduction

This questionnaire has been developed to source data from athletes in Kenya. The questionnaire has six sections in which data on variables is collected. Kindly respond to all matters raised by putting a tick (✓) accordingly.

#### Part I: Basic Information

1. Kindly indicate your gender.

a) Male ( )

b) Female ( )

2. For how long have you been in competitive athletics?

a) Below 5 years ( )

b) Between 5-10 years ( )

c) Between 11-20 years ( )

d) Between 21-30 years ( )

e) Above 30 years ( )

3. What is your age?

a) Below 18 years ( )

b) Between 18-25 years ( )

c) Between 26- 33years ( )

d) Above 30 years ( ).

4. What is your level of education?

- a) No formal schooling ( )
- b) Basic education ( )
- c) College ( )
- d) University ( ).

5. What is your marital status?

- a) Married ( )
- b) Single ( )
- c) Divorced/separated ( )

6. Do you have a financial plan?

- i. Yes ( )
- ii. No ( )

7. Do you think financing planning is important?

- a) Not important at all ( )
- b) Not important ( )
- c) Can't tell ( )
- d) Important ( )
- e) Very Important ( )

8. Is financial literacy important in helping you achieve financial goals?

- a) Not important at all ( )
- b) Not important ( )
- c) Can't tell ( )
- d) Important ( )
- e) Very Important ( )

9. What inhibits you from achieving financial goals?

- a) Limited financial knowledge ( )

- b) Poor payments in athletics ( )
- c) Misuse of financial resources ( )
- d) Too many dependants ( )

**Part II: Financial Knowledge**

10. Do you have sufficient financial knowledge to help you achieve your financial dreams?

Yes ( )

No ( )

11. In this section, kindly rank the statements in respect to your agreement with them or not. Tick 5 if you strongly agree, 4 if you agree 3 if you are neutral, 2 if you agree and 1 if you strongly disagree with the stated statement.

<b>Financial Knowledge</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1. I understand the importance of financial knowledge					
2. Budgeting knowledge is valuable in achieving financial goals					
3. I know how to save for future financial needs					
4. I have information on investment opportunities					
5. I borrow wisely					
6. I stick to my financial plans					
7. I actively seek financial knowledge to advance my financial skills					

### Part III: Financial Behaviour

12. Are you a conscious spender?

Yes ( )

No ( )

13. In this section, kindly rank the statements in respect to your agreement with them or not. Tick 5 if you strongly agree, 4 if you agree 3 if you are neutral, 2 if you agree and 1 if you strongly disagree with the stated statement.

Financial Behaviour	5	4	3	2	1
1. I understand the value of good financial behaviour					
2. I practice good financial behaviour at all times					
3. I have developed short term financial goals					
4. My savings behaviour is effective					
5. I take loans that I can comfortably repay					
6. I stay off from unplanned expenditure					
7. I have developed long term financial goals					

### Part IV: Financial Control

14. In this section, kindly rank the statements in respect to your agreement with them or not. Tick 5 if you strongly agree, 4 if you agree 3 if you are neutral, 2 if you agree and 1 if you strongly disagree with the stated statement.

<b>Financial Control</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1. I understand the importance of financial control					
2. I evaluate my financial plans periodically					
3. I manage my liquidity well					
4. I take corrective actions where financial plans do not work as expected in a timely fashion					
5. I closely monitor my investments' returns					
6. I am constantly seeking better financial plans					
7. I seek expert advice on my progress					

#### **Part V: Digital Literacy**

15. Do you access financial information from digital technologies such as from the internet?

Yes ( )

No ( )

16. How reliable is information from digital technologies?

a) Not efficient at all ( )

b) Not efficient ( )

c) Neutral ( )

d) Efficient ( )

e) Very efficient ( )

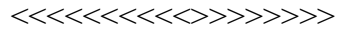
17. In this section, kindly rank the statements in respect to your agreement with them or not. Tick 5 if you strongly agree, 4 if you agree 3 if you are neutral, 2 if you agree and 1 if you strongly disagree with the stated statement.

<b>Digital Literacy</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1. I am able to use digital devices					
2. My knowledge on the internet and what it entails is good					
3. I have personalised personal financial management mobile phone application					
4. I have the ability to search and select information from the internet					
5. I practice online safety when using digital devices					
6. I can use computer applications in making financial plans					
7. I can share and communicate using digital technologies					

#### **Part V: Personal Financial Management**

18. How would you rate the observations, given the scale of 1 to 5, where 5=strongly agree, 4=agree 3=neutral 2=disagree 1=strongly disagree.

<b>Personal Financial Management</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
1. I understand the importance of personal financial management					
2. I have achieved my financial goals					
3. My financial net worth is good					
4. I have generated wealth as per my financial goals					
5. I have my retirement plan under check					
6. I have sufficient resources for emergencies					
7. My investments are paying off					



## APPENDIX 3: Strathmore University Institutional Ethics Review Committee Approval



30<sup>th</sup> April 2024

Mercy Rotich  
mercy.cherono@strathmore.edu

Dear Ms Rotich,

**RE: Financial Literacy and Personal Financial Management Among Athletes in Kenya: Moderating Effect of Digital Literacy**

This is to inform you that SU-ISERC has reviewed and **approved** your above **master's** research proposal. Your application reference number is SU-ISERC2138/24. The approval period is from 30<sup>th</sup> April 2024 to 29<sup>th</sup> April 2025.

This approval is subject to compliance with the following requirements:






- i. Only approved documents including (informed consent, study instruments, and MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days before the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,

**Mr Ambrose Rachier,**  
Chairperson; SU-ISERC

## APPENDIX 4: NACOSTI Research Permit

 REPUBLIC OF KENYA	 <b>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b>
Ref No: 159203	Date of Issue: 14/May/2024
<b>RESEARCH LICENSE</b>	
	
<b>This is to Certify that Ms. Mercy Cherono Rotich of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Usin-Gishu on the topic: FINANCIAL LITERACY AND PERSONAL FINANCIAL MANAGEMENT AMONG ATHLETES IN KENYA: MODERATING EFFECT OF DIGITAL LITERACY for the period ending : 14/May/2025.</b>	
License No: NACOSTI/P/24/35341	
159203 Applicant Identification Number	 Director General <b>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b>
Verification QR Code	
	
<b>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</b>	
<b>See overleaf for conditions</b>	

## APPENDIX 5: Translator Form

### Part A: PROTOCOL INFORMATION

<b>1A. Principal Investigator:</b> Mercy Cheron Rotich
<b>1C. Project Title:</b> FINANCIAL LITERACY AND PERSONAL FINANCIAL MANAGEMENT AMONG ATHLETES IN KENYA: MODERATING EFFECT OF DIGITAL LITERACY

### Part B; TRANSLATOR

<b>Name of the person translating:</b> Silas Kimutai
<b>Mailing address:</b> silask@gmail.com
<b>Education level of translator:</b> College certificate and athlete
<b>Language to be translated:</b> Kalenjin and Kiswahili
<b>Records to be translated:</b> to be filled during field work
<b>Dates or period of translation:</b> to be filled during field work
The translator affirms his/her proficiency in the English, Kalenjin and Kiswahili languages is high. By appending my signature to this statement confirms that I have translated the non-English communications accurately to the best of my ability
<u>Silas Kimutai</u> _____
Signature .....
Date.....2024