EFFECTS OF BEHAVIOURAL FACTORS ON REAL ESTATE AMONG WOMEN IN NAIROBI COUNTY, KENYA

BY

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DECLARATION

This research proposal is my original work and has not been presented for any award in any other university.

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This research proposal has been presented for examination with my approval as the University supervisor

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DEDICATION

I dedicate this project to my family.

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LIST OF ABBREVIATIONS

AT	Acquired Behaviour
KNBS	Kenya National Bureau of Statistics
NSE	Nairobi Securities Exchange
PBC	Perceived Behavioural Control
REIT	Real Estate Investment Trust
SN	subjective norm
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
WIRE	Women In Real Estate

ABSTRACT

Behavioral factors have been found to influence investment decisions. The number of women in real estate has been on the rise globally. Kenya has also experienced the same trend with women becoming real estate developers in the recent past. The main objective of the study was to examine the effect of behavioral factors on real estate investment among women in Nairobi County. The study was based on heuristic, prospect, herding and rational factors as the behavioral factors influencing investment in real estate by women. The study was based on heuristic, prospect, herding and theory of planned behavior. In this study descriptive research design was adopted. In this study target population was 350 women investors in Nairobi County according to women in real estate. Yamane formula was used to select 187 women investors in Nairobi County. Snowball and simple random sampling was used to select the women investors in Nairobi County. The researcher used WIRE (Women in Real Estate) organization to connect the researcher to the women investors. From there the researcher then used simple random sampling to decide the women to whom the questionnaires were administered to. The study adopted primary data. Primary data was collected using a structured questionnaire. Consent was sought from the women before they were involved in the study. The researcher used interview method in administering the questionnaires. Prior to actual study, the questionnaire was pretested amongst 18 real estate women investors in Nairobi County. Data collected through administration of questionnaires was analyzed using SPSS to generate descriptive and inferential statistics. Composite values were calculated for each of the independent variables based on the statements relating to each of the variables. The composite values were used in the regression analysis. The study found that heuristic, prospect, herding and rational factors had a positive effect on women's investment in real estate sector. The study concludes that behavioral factors significantly influence real estate investment amongst women investors in Nairobi County. The study recommends that women in real estate business should consider behavioral factors for more informed investment decisions.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Traditionally investment decision was perceived to be based on evaluation of the link between risk and return. Behavioural approaches have too been considered to have influence on investment decisions. According to Shefrin (2002) behavioural finance is financial decision approach that is based on psychological approaches. Nofsinger and Richard (2002) asserts that the choice of quantity and quality of investment options is dependent psychological approach adopted. When it comes to investment most people are seen to make their decisions based on emotions, feeling, fantasy, mood and sentiments which end up affecting investment decisions (Statman, Fisher & Anginer, 2008). And as Jordan and Miller (2008) discovered, most investors tend to have a personal and emotional attachment to the asset they hold. This in a way explains why some investors continue to hold assets even when the prices are declining. In the absence of perfect information investors are likely to make wrong decisions.

This research was based on four theories including heuristic theory, prospect theory, herding theory and theory of planned behavior. Heuristic theory postulates that gamblers fallacy arises when people predict inaccurately the reverse points which are considered as the end of good (or poor) market returns. Prospect theory, on the other hand, postulates that people make decisions based on the potential value of losses and gains rather than the final outcome. In addition, people evaluate these losses and gains rather than the final outcome and that people evaluate these losses and gains using certain heuristics. Herding theory states that individuals in a group act collectively without centralized direction. Theory of planned behaviour considers behavioural intention as the immediate motivator for individuals to perform the behaviour.

Since investment involves making future benefits of the current commitment of money or other resources (Bodie & Marcus, 2008), investors are therefore required to make investment decisions that incorporate an acceptable level of risk consistent with the anticipated benefits (Winchester, Huston & Finke, 2011). However, due to lack of financial sophistication, short sightedness and self-regulation, most investors have difficulties in making long term decisions thus relying on financial biases (Winchester et al., 2011). These psychological biases are well explained in a study on behavioural finance. Behavioural factors demonstrate how the actual behaviour of individuals in financial settings differs from rational behaviour (Nofsinger, 2001). It provides an explanation as to why investors make decisions which appear to be irrational by combining behavioural and cognitive psychology in traditional finance (Ackert & Deaves, 2009). Over the years, behavioural economists have stipulated that, behavioural factors which include heuristic, prospective, herding and rational factors make decision making easier, especially in complex, uncertain environments and particularly when time is limited (Ritter, 2003).

1.1.1 Behavioural Factors

De Waal (2003) defined behavioral factors as influences stemming from human behaviour. They might be due to personality, the situation, or are a reaction to the environment. On the other hand, De Cremer and Tenbrunsel (2012) defined behavioral factors as values, personality, the propensity for risk, and the potential for dissonance of decision relative to a business of individual decision. Behavioral factors are defined as aspects related to the actions and mannerisms made by individuals, organisms, systems or artificial entities in conjunction with themselves or their environment (Camilleri, 2016).

Behavioral factors are important to a business. One of the important objectives of the field of organizational behavior is to understand why people behave the way they do. This is important to the organization in that it enables the management to understand the behavioral factors that may influence employee performance and eventually organizational performance. They make decision making easier, especially in complex, uncertain environments especially when time is limited. Understanding why employees or customers behave in a specific way also guides the management in making critical decisions that my affect the strategy in the long-run.

Behavioral factors have been assessed in various ways by researchers. Ritter (2003) indicated that behavioural factors include heuristic and prospective factors. De Waal (2003) grouped behavioural factors into herding and rationality factors. Dessart et al (2019) measured behavioral factors in form of personality, risk tolerance and perceptions towards business or individual. On the other hand, behavioral factors relate to job attitude, organizational citizenship behaviors, absenteeism, and turnover (Pac et al, 2019).

1.1.2 Real Estate Investments

Baum (2009) states that real estate investing involves the purchase, ownership, management, rental and/or sale of real estate for profit. Real estate investing refers to the purchase of property as an investment to generate income rather than using it as a primary residence (Haight & Singer, 2005). In simple terms, it can be understood as any land, building, infrastructure and other tangible property usually immovable but transferable. Real estate investment entails different activities ranging from management, ownership, purchase, rental land or sale of real estate for profit (Okumu, 2017).

Real estate comprises of land, building on it and other natural resources like minerals and crops and minerals which are immovable (Lieser & Groh, 2014). Real estate investments have been measured in various ways by researchers. Baum (2015) measured it in terms of industrial investments by both individuals and businesses. On the other hand, it is measured in terms of commercialized investment in land and housing (Wright & Yanotti, 2019). Further, real estate investment is measured in terms of residential investment in land and housing by individuals (Feng et al, 2021). Gitau, Kiragu and Riro (2019) measured real estate investment in terms of the amount of money invested in land and rented property.

1.1.3 Behavioural Factors and Real Estate Investments

Behavioural factors have shown an improvement in investment especially in real estate. Investors in the real estate sector consider their emotions in addition to financial factors in order to make rational investment decision. Prospect theory supports this assertion in that it states that investors make investment decisions based on judgements of the external world with considerations of their emotional and psychological effect of the investment decision.

Empirically, behavioral factors have shown mixed results on their relationship with investment in real estate. Manikandan and Muthumeenakshi (2017) established that behavioral factors have a positive effect on investment in real estate. Pires, Ferreira, Jalali and Chang (2018) also established a positive effect. However, Khim (2018) established that behavioural factors influenced investment in real estate negatively. This is supported by Salzman and Zwinkels (2017) together with Metawa, Hassan, Metawa and Safa (2019).

1.1.4 Women in Real estate Nairobi County

In the recent years, Kenya has seen an increased number of women investing in reals estate (WIRE, 2020). Today's women, especially those in urban counties like Nairobi City, are making more money and controlling their own financial decisions far more than in decades past. Record numbers of women are buying homes and other properties as they look for independence and comfort. They are no longer restricted to 'house duties', but are increasingly playing a significant role in investment decisions such as house buying. On the other hand, a good number of women have vested in real estate investment in the recent years. Nairobi county has shown a large group of women owning real estate development firms and agencies. This has been accrued to the increased hype and the potential displayed by the sector. Real Estate agent firms in Nairobi pride in having an increased number of women being their clients over the past five years.

1.2 Problem Statement

Traditional finance has long assumed that investors are unbiased, rational, and risk averse (Lawrenson, 2020). It also claims that investors' risk tolerance is generally fixed, and that individuals will only accept increasing levels of risk if enough rewards are offered. Many of us have learned the hard way that this is not always the case. Behavioral finance is a new branch of study that has evolved to explain the reality of investment (Suhobokov, 2021). The new discipline presents investors as overconfident, emotionally reactive, and biased on a regular basis. Behavioural finance approach involves use of psychological factors to make a decision (Gitau, 2011). This may call for use of herding behaviour, use of heuristics and prospective approach which are non-mathematical thus can influence decision positively or negatively. Real estate statistics in Kenya indicates that there are more women who are venturing into real estate as compared to men.

The number of women in real estate has been on the rise globally. Kenya has also experienced the same trend with women becoming real estate developers in the recent past. This has led to the formation of an association called women in real estate. Here women are motivated to join real estate investors (WIRE, 2020). Various researchers have carried our studies on behavioural factors and investment decisions. Globally, Sattar, Toseef and Sattar (2020) studied the effect of behavioural finance biases in investment decision in China; Ahmad, Ayman, Yousef and Alaa (2019) studied the impact of behavioural finance on stock investment decision in Amman stock exchange; Ogunlusi and Obademi (2019) studied the effect of behavioural finance on investment decision among investment banks in Nigeria; while Kanan, Raman and Gurendra (2018) studied the impact of behavioral factors on investment decision making in India. The studies despite focusing on behavioural factors and investment, they have focused on organizational or general individual investments. They have assumed the investment among women in real estate.

Locally, Odoyo (2020) studied the effect of behavioural finance on investors decision in Kenya; Karanja (2017) studied the effect of behavioural factors on individual investment decision in Nairobi Securities Exchange; Mochere, Atambo and Mogwambo (2016) studied the effect of behavioral factors on performance of real estate in Kisii town; while Ouma and Oluoch (2019) studied the effect of behavioral biases on market performance of shares of companies listed in Nairobi Securities Exchange. Despite the studies focusing on behavioral factors and investment, the researchers have focused on Listed firms (Karanja, 2017; Ouma & Oluoch, 2019). For the researchers who focused on real estate, they have looked at real estate performance other than investment (Mochere, Atambo and Mogwambo, 2016). This shows that the studies have left a research gap that this research sought to fill by answering the question: what is the effect of behavioral factors on real estate investment among women in Nairobi County?

1.3 Objectives of the Study

The main objective of the study was to examine the effect of behavioral factors on real estate investment among women in Nairobi County.

1.4 Value of the Study

The information contained in this study will be insightful on real estate investors on the right investment approach to deploy in a given situation. Through understanding of alternative behavioral approaches investors would be informed on how to adopt the most optimal decision. The findings of this study are expected to help policy makers in their regulation role and also its contribution on economic development. To theorists and empirical researchers, the study will provide empirical and theoretical foundations that can be applied in a wide variety of investment decision making criterions. The study will bridge existing theoretical and empirical gaps since it will customize its findings to insurance companies who are players in financial system. identified.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical and empirical literature review. Further, research gaps and conceptual framework was presented.

2.2 Theoretical Review

The study was based on heuristic theory, prospect theory, herding theory and theory of planned behaviour. Theoretical proposition, theoretical development and relevance in the study will be presented.

2.2.1 Heuristic Theory

The proponents of heuristic theory were Kahneman and Tversky (1984) who revolutionized the academic research on human judgment/decision making. The central idea of the "heuristics and biases" was that judgment under uncertainty often rests on limited number of simplifying heuristics rather than extensive algorithmic processing. The popularity of this central idea soon spread beyond academic psychology, affecting theory and research across a range of disciplines. The message was revolutionary in that it simultaneously questioned the descriptive adequacy of ideal models of judgment and offered a cognitive alternative that explained human error without invoking motivated irrationality (Gilovich & Griffin, 2002).

The belief that a small sample can resemble the parent population from which it is drawn is known as the "law of small numbers" which may lead to a gamblers' fallacy (Barberis & Thaler, 2003). This behaviour is an explanation for investor overreaction (DeBondt & Thaler, 1995). More specifically, in property market, gambler's fallacy arises when people predict inaccurately the reverse points which are considered as the end of good (or poor) market returns (Waweru et al., 2008). In the property market in Nairobi County, this theory lay the foundation of heuristic factors affecting investment decision among women investors.

2.2.2 Prospect Theory

Prospect theory was created in 1979 and developed by Daniel Kahneman and Tversky (1992) as a psychologically more accurate description of decision making. The theory states that people make decisions based on the potential value of losses and gains rather than final outcome. In addition, people evaluate these losses and gains rather than final outcome and that people evaluate these losses and gains using certain heuristics (Tversky & Kahneman, 1979).

Prospect theory is a theory of decision making under conditions of risk. Decisions are based on risks. Judgements are assessments about the external state of the world. They are made especially challenging under conditions of uncertainty, where it is difficult to oversee the consequences or outcome of events with clarity. Decisions involve internal conflict over value-trade-offs. They are made difficult when choices promote contradictory values and goals. The hypothesis directly addresses how these choices are framed and evaluated in the decision-making process (Tversky & Kahneman, 1979).

In addition, Lehenkari and Perttunen (2004) find that both positive and negative returns in the past can boost the negative relationship between the selling trend and capital losses of investors, suggesting that investors are loss averse. Risk aversion can be understood as a common behaviour of investors, nevertheless, it may result in bad decision affecting investors wealth (Odean, 2005). Rockenbach (2004) suggests that connection between different investment possibilities is often not made as it is useful for arbitrage free pricing. In this research, prospect theory will form the theoretical foundation of prospect factors and its influencing level on the investment decision making of investors at the property market in Nairobi County.

2.2.3 Herding Theory

Raafat, Chater and Frith, (2009) proposed the herd behaviour theory to describe how individuals in a group can act collectively without centralized direction. They proposed integrated approach to herding, describing two key issues; the mechanisms of transmission of thoughts or behaviour between individuals and the patterns of connection between them. They suggested that bringing together diverse theoretical approaches of herding behaviour illuminates the applicability of the theory to many domains, ranging from cognitive neuroscience to economics and business fields.

Herding effect in financial market is identified as tendency of investors' behaviours to follow the others actions. Practitioners usually consider carefully the existence of herding, due to the fact that investors rely on collective information more than private information which can result into price deviation of the securities from fundamental value; therefore, many good chances for investment at the present can be impacted. Academic researchers also pay their attention to herding; because its impacts on property price changes that influence the attributes of risk and return models and this has impacts on the viewpoints of asset pricing theories (Tan, Chiang, Mason & Nelling, 2008).

When making a decision of property to purchase, investors may not find a good property to buy after considering systematically the thousands of listed ones. They normally buy property having caught their interest and maybe the greatest source for attention is from past performance, even good or bad. Per Barberis and Thaler (2003), individual investors seem to be less impacted by attention-grasping property for their selling decisions because the selling decision and the buying decision are differently run. Because of restraints, when deciding to choose a property for selling, they can only focus on the ones that currently belong to them. Whereas, with buying decision, individuals have a lot of chances to choose the wanted property from the wide range of selective sources, this explains why factors of attention impact more on the property buying decisions than the selling decisions. Therefore, behavioural factors impact the investment decisions of investors in the financial markets, especially in the real estate markets. This theory lay the foundation of the herding bias of investors in the study.

2.2.4 Theory of Planned Behaviour

The theory of planned behaviour (TPB) was introduced by Ajzen (2002) as a link between beliefs and behaviour. It was intended by Ajzen (2002) as an improvement on the earlier predictive power of the theory of reasoned action in 1980. The theory of reasoned action considers behavioural intention as the immediate motivator for individuals to perform the behaviour. Behavioural intention, in turn, is a function of two determining factors, namely attitude toward the Acquired Behaviour (AT) and subjective norm (SN) that relate to conducting the behaviour (Ajzen & Fishbein, 1980).

Attitude toward the behaviour is defined as one's general feelings indicating their favorableness or unavoidableness to the behaviour. Subjective norm is defined as one's perception regarding whether significantly others think the behaviour should be performed or not (Ajzen & Fishbein, 1980). Despite the fact that TRA is widely accepted, it still contains limitations. It does not anticipate accurately behaviours constrained by a lack of opportunities or resources such as skills, time or capital to make investment decision. This is even when individuals would otherwise be favourable of and socially urged to perform the behaviour (Ajzen, 1991).

Ajzen (2002) introduced theory of planned behaviour. Perceived behavioural control is defined as ones perception of the ease or the difficulty/anomaly in conducting the concerned behaviour, relating to the existence or absence of necessary resources and opportunities (Ajzen, 2002). The theory of planned behaviour also claims that perceived behavioural control could influence behaviours in that it could affect the intention to perform behaviour. It could directly affect the behaviour, in a way dependent from the concerned intention. Both of these two control influences could involve in the investors process of decision-making and in their behaviours. Such control influences could include internal factors such as individual knowledge, experience, skills or emotions; and external factors like financial resources, time or partners' cooperation that are vital in decision making (Ajzen, 2005).

The significance in explaining behaviour of the three basic elements of TPB, including attitude toward the behaviour, subjective norm, and perceived behavioural control have been claimed in multiple studies (Sommer, 2011). The theory of planned behaviour has been widely used to predict business behaviours (Krueger & Carsrud, 1993). Per Ajzen (2005), in the short term, TPB shows that "people intend to perform behaviour when they evaluate it positively, when they experience social pressure to perform it, and when they believe that they have the means and opportunities to do so". This view of motivation indicates a possibility to explain the principal factors influencing investors decision making in property market in Nairobi City County. The theory of planned behaviour lay the foundation of explaining the rationality of women real estate investors in Nairobi County.

2.3 Determinants of Investment in Real Estate

2.3.1 Behavioral factors

Behavioral factors are aspects related to the actions and mannerisms made by individuals, organisms in conjunction with themselves or their environment. They relate to heuristic, prospect, herding and rational factors. Heuristic Factors are behaviors related to judgments under uncertainty. Kahneman and Tversky (1979) described 3 general-purpose heuristics; availability, representativeness, anchoring and adjustment that underlie intuitive judgments under uncertainty. These heuristics, it was suggested, were simple and efficient because they piggybacked on basic computations that the mind had evolved to make. Heuristics were defined as the rules of thumb, that makes decision making easier, especially in complex and uncertain environments by reducing the complexity of assessing probabilities and predicting values to simpler judgments (Kahneman & Tversky, 1979).

Representativeness refers to the degree of similarity that an event has with its parent population or the degree to which an event resembles its population (Kahneman & Tversky, 1979). In property market, when investors seek to buy "hot" property instead of poorly performing ones, this means that representativeness is applied. Anchoring is a phenomenon used in the situation when people use some initial values to make estimation, which are biased toward the initial ones as different starting points yield different estimates (Kahneman & Tversky, 1979).

Anchoring arises when a value scale is fixed by recent observations. Investors always refer to the initial purchase price when selling or analyzing in the property market. Availability bias happens when people make use of easily available information excessively. In property market, this bias manifest itself through the preference of investing in local property companies which investors are familiar with or obtain information, despite the fundamental principles so-called diversification of portfolio management for optimization (Waweru et al., 2008).

Prospect factors reveals the difference between the two phases of choice making for an investor: First phase of framing and the other phase of evaluation. By developing prospect theory, Tversky and Kahneman (1979) explained how people take care of risk and uncertainty. The theory explains the apparent irregularity in human behaviour when assessing risk under uncertainty. It advocates the fact that human beings are not consistently risk-averse; rather they are risk-takers in losses and risk-averse in gains.

Kishore (2004) called this, certainty effect that human beings are not consistently risk-averse; rather they are risk averse in gains but risk-takers in losses and traders are most apt to take subsequent risks if they have already experienced losses. Investors in the property market in Nairobi County may tend to under weigh probable outcomes compared with certain ones and might respond differently to similar situations depending on context of losses/ gains in the property market.

Prospect factors focuses on subjective decision-making influenced by the investors' value system (Filbeck, Hatfield & Horvath, 2005). Prospect theory describes some states of mind affecting an individual's decision-making processes including disposition effect (Waweru et al., 2008). Regret is an emotion that occurs after people make mistakes. Investors avoid regret by refusing to sell decreasing property and willing to sell increasing ones. Moreover, investors tend to be more regretful about holding losing property too long than selling winning ones too soon (Forgel & Berry, 2006).

In the perspective of behaviour, herding can cause some cognitive biases, including conformity, congruity and cognitive conflict, the home bias and gossip. Investors may prefer herding if they believe that herding can help them to extract useful and reliable information (Kallinterakis, Munir & Markovic, 2010). In the property market, herding investors base their investment decisions on the masses' decisions of buying or selling stocks. In contrast, informed and rational investors usually ignore following the flow of masses, and this makes the market efficient. Herding in the opposite causes a state of inefficient market, which is usually recognized by speculative bubbles. In general, herding investors act the same ways as prehistoric men who had a little knowledge and information of the surrounding environment and gathered in groups to support each other and get safety (Caparrelli *et al.,* 2004).

There are several elements that impact the herding behaviour of an investor like overconfidence, volume of investment, and so on. The more confident the investors are, the more they rely on their private information for the investment decisions. In this case, investors seem to be less interested in herding behaviours. When the investors put a large amount of capital into their investment, they tend to follow the others' actions to reduce the risks, at least in the way they feel (Kallinterakis *et al.,* 2010).

2.3.2 Other Factors

There are other determinants of real estate investment other than behavioral factors. The real estate markets are heavily influenced by interest rates (Agarwal, Ben-David & Yao, 2015). If you're thinking about buying a house with a mortgage, it's a good idea to look into interest rates with a mortgage calculator. Interest rate fluctuations can have a significant impact on a person's ability to acquire a home (Jordà, Schularick & Taylor, 2015). This is because as interest rates fall, the cost of obtaining a mortgage to purchase a property falls, resulting in increased demand for real estate and, as a result, higher prices.

It's worth noting that as interest rates rises, the cost of obtaining a mortgage rises, affecting demand and real estate prices (La Cava, 2016). When interest rates fall, the value of a bond rises because the coupon rate becomes more appealing, and when interest rates rise, bond value falls. Similarly, as the market's interest rate falls, REITs' high yields become more appealing, and their value rises (Bhutta & Keys, 2016). When interest rates rise, a REIT's yield becomes less appealing, causing its value to fall.

The situation of the economy is another important aspect that influences the value of real estate (Thaker & Sakaran, 2016). Economic metrics such as the GDP, employment data, manufacturing activity, and goods prices, among others, are used to assess this. In general, real estate is sluggish when the economy is sluggish (LeSage, 2015).

Another element that might have a significant impact on property demand and pricing is legislation (Shoag, 2019). For as long as they are in place, tax credits, deductions, and subsidies are some of the ways the government can temporarily promote demand for real estate. Knowing about current government incentives can aid in determining supply and demand changes and spotting potentially deceptive trends (Schleicher, 2017).

2.4 Empirical Review

2.4.1 Global Empirical Review

Sattar, Toseef and Sattar (2020) studied the effect of behavioural finance biases in investment decision in China. Cross sectional research design was applied and primary data gathered in the period between January 2019 and Jue 2020 through administration of questionnaires. Univariate, bivariate and multivariate techniques were used for data analysis. Study findings indicated that investment decision was affected by heuristic behaviours and personality characteristics. The findings may not be replicated in Kenyan perspective since Kenya is a developing country as compared to developed economy in China.

Ogunlusi and Obademi (2019) studied the effect of behavioural finance on investment decision among investment banks in Nigeria. Cross sectional research design was applied and primary data collected between January and November 2019 through administration of 200 questionnaires. Descriptive statistics and bivariate approach analyzed the data. Study findings indicated positive and significant effect of behavioral finance and investment decision. The findings may not be generalized among women real estate investors in Nairobi County since their investment decisions may be based on heterogenous aspects as compared to investment bank.

Akinkoye and Bankole (2020) studied the effect of emotional biases on investors decision making in Nigeria. Descriptive research design was applied and primary data collected between January 2019 and May 2020 through issue of questionnaires among 200 investors in Nigeria. Descriptive statistics and logistic regression were used to analyze the data. Study findings indicated that there was significant effect of emotional bias (loss aversion, overconfidence, regret and herding) have significant effect on investment decision among investors in Nigeria. There was need for adoption of measures aimed at enhancing sustainability of investment decision. The choice of logistic regression should have been justified by diagnostic tests.

Kanan, Raman and Gurendra (2018) studied the impact of behavioral factors on investment decision making in India. Descriptive research design was applied and primary data collected between July 2017 and June 2018 through issue of questionnaires. Multiple regression model was fitted on heuristic biases and gamblers fallacy on investment decision. Study findings indicated that investment decision was significantly affected by heuristic biases and gamblers fallacy.

Audu and Abubakar (2019) studied effect of behavioural finance on individual investment decision in Nigeria stock market. The study was conducted between January 2019 and September 2019.

Cross sectional research design was applied and primary data gathered through administration of questionnaires. Structural equation model was used for data analysis. Heuristics have negative and significant impact investment decision. Prospect, rationality and herding had positive and not significant impact on investment decision. The study may have reported diagnostic tests that supported fitting structural equation model.

Ahmad, Ayman, Yousef and Alaa (2019) studied the impact of behavioural finance on stock investment decision in Amman stock exchange between June 2018 and August 2019. Descriptive research design was applied and primary data collected through issue of questionnaires. Data was analyzed through descriptive statistics and hierarchical regression modelling. Results of the study indicated that investment decision was significantly affected by overconfidence, loss aversion and herding factors. The study may have reported diagnostic tests prior to regression modelling. This may have managed the odds of fitting spurious models.

Nkukpornu, Gyimah and Sakyiwaa (2020) studied the effect of behavioural finance on investment decision in Ghana. Cross sectional research design was applied and primary data collected through issue of questionnaires between October 2019 and September 2020. Descriptive statistics and multiple regression analysis were used for data analysis. Study findings indicated that investment decision was significantly affected by overconfidence, regret, belief and snakebite. The study should have considered reporting on assumptions of regression analysis so as to minimize the odds of reporting biased conclusion.

Donkor, Akohene and Acheampong (2016) studied behavioural factors and investment decision of bankers in Ghana conducted between January 2016 and November 2016. Descriptive research design was adopted and primary data collected through issue of questionnaires. Descriptive statistics and correlation analysis analyzed the data. Study findings indicates that investment decisions in banking sector are based on overconfidence, anchoring and herd behaviour. These results may not be replicated among women investment decision in real estate since investment portfolio composition differs from the two sectors.

Anuum and Ameer (2017) studied the effect of behavioral factors on individual investment decision making in Pakistan stock market. Cross sectional research design was adopted and primary data sought from respondents using questionnaires. Descriptive and inferential statistics were used for data analysis. The study was conducted between December 2016 and September 2017. Study findings indicate that heuristic, herding and prospect factors have significant effect on individual investment decision making.

2.4.2 Local Empirical Review

Odoyo (2020) studied the effect of behavioural finance on investors decision in Kenya. Descriptive research design was applied and data was collected through of questionnaires to 50 respondents who were financial advisors. The research was conducted between June 2018 and April 2019. Univariate and multivariate techniques were used for data analysis. Investment decision was positively and significantly affected by overconfidence and heuristics. However, there was no significant association between anchoring bias and investment decision. The study may have considered reporting regression assumptions prior to regression modelling.

Karanja (2017) studied the effect of behavioural factors on individual investment decision in Nairobi Securities Exchange. The study examined the effect of heuristic, prospect, herd and market forces on individual investment decision. Descriptive research approach was adopted and 385 respondents selected through snow ball sampling. Primary data was gathered through between January 2017 and October 2017. Descriptive and multivariate statistics analyzed the data. Study findings indicated that there was a significant association between heuristic, prospect, herd and market forces on individual investment decision.

Ndinda, Anyango and Rotich (2016) studied behavioral factors influencing investment decision of investors in Nairobi Securities Exchange. The study was done for the period between September 2015 and June 2016. Descriptive research design was applied and primary data collected through administration of questionnaires. Univariate, bivariate and multivariate approaches were used for data analysis. Study findings indicated that there was positive effect of herding, prospect, rationality and heuristic factors on investment decision in NSE. Since, NSE have heterogenous product there was need for selection of investors through cluster sampling and those that may have invested in different securities ought to have been interviewed through use of in-depth interview guides.

Waweru, Mwangi and Parkinson (2014) studied the effect of behavioral factors on real investment decision in Kenyan property market. The study was done between April 2014 and November 2014. Descriptive research design was adopted with data gathered through questionnaires in real estate companies in Nairobi. Descriptive statistics and multiple regression analysis were used for data analysis. Study findings indicated that there was a significant association between behavioural factors and real estate investment decision in Kenyan property market.

Mochere, Atambo and Mogwambo (2016) studied the effect of behavioral factors on performance of real estate in Kisii town. The research was done between January 2016 to October 2016. Descriptive research design was applied with data gathered via administration of questionnaires. Univariate and bivariate techniques analyzed data. Study findings show that there was significant effect of herding and representative factors on performance of real estate in Kisii town. The study findings may not be replicated among women real estate investors in Nairobi County since there are different economic and social characteristics in the two Counties.

Ouma and Oluoch (2019) studied the effect of behavioral biases on market performance of shares of companies listed in Nairobi Securities Exchange. The period was one-year from September 2018 to September 2019. Longitudinal research design was applied and secondary data collected from annual financial statements through use of document check index. Descriptive statistics and multiple regression were used for data analysis. Study findings indicates there was a significant association between herding behavior and overconfidence on market performance of share of companies listed in NSE. The study should have reported panel data diagnostic tests prior to modelling. Further, there was need for adoption specific and measurable measures of behavioral factors.

2.5 Summary of Literature Review

From the foregoing literature review there are some theoretical, conceptual, methodological and contextual gaps emanating from past studies. From methodological perspective the studies have adopted use of multiple regression analysis in exclusion of reporting its diagnostic tests. This may have increased the odds of drawing biased conclusions. Local studies have been carried out in different sectors and counties that may be having unique characteristics as compared to Nairobi County. Conceptually, there have been different conceptualization of behavioral finance attributes hence there are higher chances of drawing biased findings. Though, most studies have reported positive effect some have not been significant.

2.6 Conceptual Framework

The study hypothesis that real estate investment among women in Nairobi County was affected by heuristic, prospect, herding and rational factors. Heuristic factors were operationalized as anchoring, available bias and overconfidence. Prospect factors was operationalized as loss aversion, regret aversion and mental accounting. Herding factors was operationalized as market information, trading volumes and sources of information. Rational factors were operationalized as price movement, customer preference and availability of complementing amenities. Real estate investment was operationalized as the amount of money spent by women in real estate. The relationship is as shown in Figure 2.1.

Independent Variables Dependent Variables

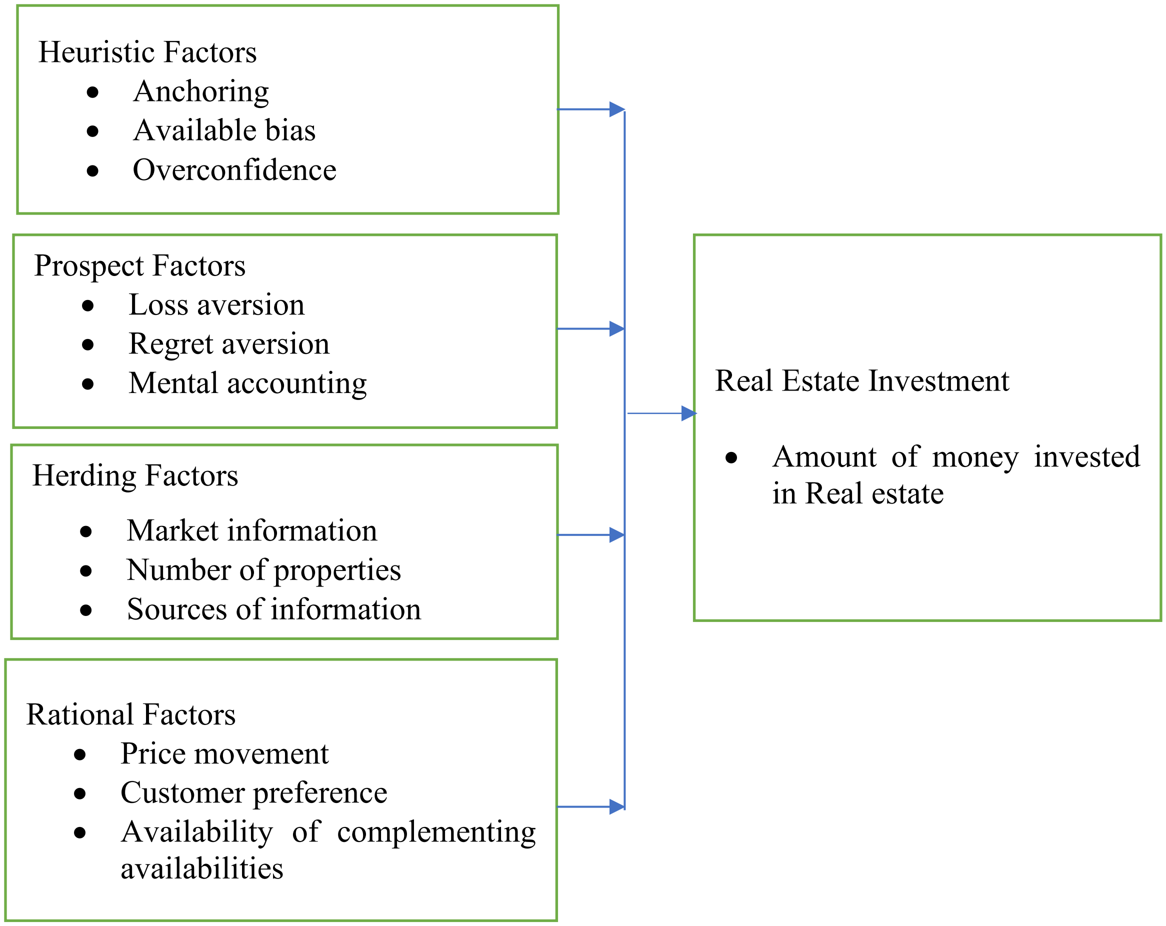

Figure 2.1: Conceptual Framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

A detailed presentation of research methodology adopted in the study was presented. In this chapter research design, target population, sampling procedure and size, data collection method, research instrument and data analysis.

3.2 Research Design

Research design refers to logical framework on how research was executed (Saunders, Lewis & Thornhill, 2014). In addition, Sekaran and Bougie (2013) perceived it as step-by-step guidelines on how research objectives were achieved with minimal distraction. In this study descriptive research design was adopted. According to Saunders et al., (2014) whenever the researcher sought to describe when, what, how and why the situation as per the problem under exploration, then the biased research design is descriptive. Descriptive research design was appropriate for the study since the study sought to explain the effect of behavioral factors and real estate investment decision among women in Nairobi County.

3.3 Population of the Study

A complete count of all elements under investigation in a study is known as target population (Saunder et al., 2014). According to Sekaran and Bougie (2013) all these individuals ought to have unique and similar characteristics under investigation by the researcher. In this study target population will comprise of women investors in Nairobi County. According to WIRE (2020), there were 350 women investors in Nairobi County at the end of year 2020. Nairobi county will be preferred due to its high number of women investors compared to other counties in Kenya.

3.4 Sampling

Sampling was done to get a sufficient sample for this study. Sample size was determined through use of Yamane formula (Yamane, 1967) as follows; $n = N / [1 + N(e)^2]$ Where n is the sample size, N is the population size, and e is the level of precision.

$n = 350/ [1 + 350(0.05)^2] = 187$.

From the sample calculation, the study targeted 187 women investors in Nairobi County. Snowball and simple random sampling was used to select 187 women investors. The women investors was accessed through snow balling. This involves using a contact to lead the researcher to the respondents. In this study, I will use WIRE (Women in Real Estate) organization to connect me to the women investors. From there the researcher will then use simple random sampling to decide the women to whom the questionnaires will be administered to.

3.5 Data Collection Instrument

The study adopted primary data collected using a structured questionnaire. To ease data collection closed ended questions will be adopted. Sekaran and Bougie (2013) purported that it is always easier to administer questionnaires owing to its flexibility in questions hence respondent can answer them on their own and at their convenience. Further, Cooper and Schnidler (2014) argued that questions can be easily administered through drop and pick method or online since they do not require one on one interview during data collection.

3.6 Data Collection Procedure

The researcher carried an introduction letter from the university to assure the respondents that the information that they gave was treated confidentially and it would be used purely for academic purposes. The researcher, together with the research assistants will administer the questionnaires to the women investors through telephone calls or emails got from the WIRE. Consent will be sought from the women before they can be involved in the study. They will use interview method in administering the questionnaires. This will involve the researcher asking the respondents questions and filling the questionnaires based on the responses given.

3.7 Piloting of Research Instruments

Prior to actual study, the questionnaire was pretested amongst 18 real estate women investors in Nairobi County. This aided in examining shortcoming associated with the research instrument. According to Saunders et al. (2014) the main purpose of pretesting research instrument is to evaluate corrective measures adopted so as to enhance quality of information gathered. The women investors involved in the piloting will be left out in the actual study.

3.7.1 Reliability of Research Instrument

Reliability is the test of the likelihood of achieving similar findings if research instrument is administered in different groups (Oso & Onen, 2009). Also, it is the ability of research instrument to yield stable results. Reliability was tested using Cronbach Alpha. According to Sekaran and Bougie (2013) Cronbach Alpha coefficient ranges between 0 to 1 and the higher its coefficient the more reliable a research instrument is, they purported that a coefficient greater than or equal to 0.7 shows that the research instrument is reliable.

3.7.2 Validity of Research Instrument

To ensure validity, the outcome of the pilot study was discussed with the supervisor. Validity has to do with how accurately the data obtained in the study represents variables. There is need to develop sound evidence to demonstrate that the test interpretation (of scores about the concept or construct that the test is assumed to measure) matches its proposed use (Cooper & Schindler, 2014). The pilot results led to improvements and additions in the questionnaire. Corrections suggested by the supervisors was adopted into the research instrument before instrument is used for data collection.

3.8 Data Analysis

Data collected through administration of questionnaires will be analyzed using SPSS. Descriptive and inferential statistics were used. Descriptive included mean, standard deviation, frequency and percentage. Inferential statistics had Product moment correlation (relationship) and regression modelling (effect). Composite values will be calculated for each of the independent variables based on the statements (in the questionnaire) relating to each of the variables. The composite values will be used in the regression analysis. Multiple regression model was of the form:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \mu$$

Where Y = Real Estate Investment as measured by amount invested by women in real estate

X_1 = Heuristic factors

X_2 = Prospect factors

X_3 = Herding factors

X_4 = Rational factors

β_0 = Y intercept, value of real estate investment when all Xs are zero.

β_1, β_2, β_3, β_4, slope coefficient per unit increases in each X while holding the others constant.

μ = other factors that may affect real estate investment in absence of behavioural factors.

3.9 Test of Significance

The study adopted 5% level of significance. The null hypothesis would be rejected if the p-value was less than 5%. F-statistics was used to test the significance of the model. T-statistics to test individual significance.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter discussed the interpretation and presentation of findings obtained from the data. The chapter presented the background information of the respondents, and findings based on the variables of the study.

4.1.1 Response Rate

Table 4. 1: Response Rate

	Questionnaires Administered	Questionnaires filled & returned	Percentage
Respondents	187	166	88.8

As per Mugenda and Mugenda (2003), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the assertion, the response rate was excellent as it stood at 88.8% which was greater than 70%.

4.2.1 Reliability Results

Table 4.2: Test Reliability results

Variable	Cronbach Alpha coefficient score	No. of Items	Comment
Heuristic factors	.734	5	Reliable
Prospect factors	.840	6	Reliable
Herding factors	.894	7	Reliable
Rational factors	.732	4	Reliable

A pilot study was done to determine reliability of the questionnaires. The pilot study involved the sample respondents. Reliability analysis was subsequently done using Cronbach's Alpha which measured the internal consistency by establishing if certain item within a scale measures the same construct. Gliem and Gliem (2003) established the Alpha value threshold at 0.7, thus forming the study's benchmark. Cronbach alpha was established for every objective. The table 4.2 shows that herding factors has highest reliability of (α= 0.894), prospect factors with a reliability of (α=0.840), then heuristic factors with a reliability of (α=0.734) and finally the rational factors with a reliability (α=0.732). This illustrates that all the variables were reliable as their reliability values exceeded the prescribed threshold of 0.7.

4.2 Background Information

This section starts by analysing the participant's demographic information. Specifically, this study inquired information on respondent's gender, age, highest academic qualification. Number of years in real estate investment and marital status

Table 4.3: Age Bracket of the Respondents

Years	Frequency	Percent	Cumulative Percent
25-35	31	18.7	18.7
36-45	58	34.9	53.6
46-55	56	33.7	87.3
56 years and above	21	12.7	100.0
Total	166	100.0	

Results show that 34.9% of the respondents were aged between 36-45 years, 33.7% were aged between 46-55 years, 18.7% were aged between 25-35 years, and 12.7% were aged above 56 years. The study concludes that majority of women considering going for real estate investment were aged above 35 years.

Table 4.4: Highest Level of Education

	Frequency	Percent	Cumulative Percent
Post-graduate	19	11.4	11.4
Graduate	80	48.2	59.6
Diploma	53	31.9	91.6
Certificate and below	14	8.4	100.0
Total	166	100.0	

Results show that 48.2% of the respondents were graduates, 31.9% had diploma certificates, 11.4% had post-graduate education, while 8.4% of the respondents had certificate. Drawing from the findings, it's evident that the entire respondent were well educated which implies that they were in a position to respond to research subject and respond appropriately.

Table 4.5: Period In Real Estate Business

	Frequency	Percent	Cumulative Percent
Below 1 years	15	9.0	9.0
1-5 years	63	38.0	47.0
6-10 years	55	33.1	80.1
11-15 years	33	19.9	100.0
Total	166	100.0	

The study established that 38.0% of the respondents had been in real estate business for 1-5 years, 33.1% had been in real estate business for 6 to 10 years, 19.9% had been in real estate business for a duration of 11 to 15 years, 9.0% had been in real estate business for less than a year. This implies that majority of the women involved in the real estate business for a considerable duration and thus able to provide information sought based on their vast experience.

Table 4.6: Marital Status

	Frequency	Percent	Cumulative Percent
Married	67	40.4	40.4
Single	58	34.9	75.3

Separated	41	24.7	100.0
Total	166	100.0	

The study established that 40.4% of the women in real estate business were married, 34.9% were single, and while 24.7% indicated that they had separated with their spouses. This implies that majority women in real estate business in Nairobi County were married.

4.3 Heuristic Factors

The study sought to determine the extent to which respondents agreed with statements relating to heuristic factors

Table 4.7: Statements Relating to Heuristic Factors

	N	Min	Max	Mean	Std Dev
Availability of opportunities make me engage in real estate financing	166	3.00	5.00	3.94	0.69
I prefer prime property in my investment decisions	166	2.00	4.00	3.91	0.72
I make real estate investment estimates based on the industrial estimates	166	2.00	5.00	4.20	0.80
Women make use of easily available information on real estate excessively	166	2.00	5.00	4.39	0.69
Women are overconfident when making the investment decisions in real estate	166	1.00	5.00	3.96	0.75

From study findings, the respondents agreed that women make use of easily available information on real estate excessively (M= 4.39 SD=0.69). They further agreed that women made real estate investment estimates based on the industrial estimates (M=4.20 SD= 0.80); availability of opportunities made women engage in real estate financing (M=3.94 SD= 0.69); and that women were overconfident when making the investment decisions in real estate (M=3.96 SD=1.07). They also agreed that women preferred prime property in their investment decisions (M= 3.91 SD=0.72). This indicates that heuristic factor influences real estate investing among women.

4.4 Prospect Factors

The study sought to determine the extent to which respondents agreed with statements assessing women investors factored in prospect aspects in making investment decisions.

Table 4.8: Statements relating to prospect Factors

Prospect Factors	N	Min	Max	Mean	Std Dev
I take risks in my investments in real estate	166	1.00	3.00	1.77	0.74
I am risk-averse when it comes to real estate investment	166	2.00	5.00	3.99	1.01
Real estate investors refuse to sell decreasing property and sell increasing ones	166	2.00	5.00	3.87	0.93
Women hold their properties for some time before selling on increasing properties to avoid regrets	166	1.00	3.00	1.83	0.79
I avoid stress by following prospects in real estate financing	166	3.00	5.00	3.99	0.78
I always account for any losses or gains in my real estate investments	166	1.00	3.00	1.79	0.71

From study findings, majority of the respondents agreed that women considered themselves as risk-averse investors when it comes to real estate investment (M=3.99 SD=1.01), women avoid stress by following prospects in real estate financing (M= 3.99 SD=0.78) and that real estate investors refuse to sell decreasing property and sell increasing ones (M=3.87 SD=0.93).

However, the respondents disagreed that women held their properties for some time before selling on increasing properties to avoid regrets (M=1.83 SD=0.79), women did not always account for any losses or gains in their real estate investments regrets (M=1.79 SD=0.71), and those women take risks in investing in real estate (M=1.77 SD=0.74).

4.5 Herding Factors

The study sought to determine the extent to which respondents agreed with statements assessing on the extent to which women investors factored in herding factors in making investment decisions.

Table 4.9: Statements Relating to Herding Factors

	N	Min	Max	Mean	Std Dev
I base my investment decisions on masses decisions of buying or selling	166	3.00	5.00	4.29	0.71
The real estate market experience speculative bubbles often	166	3.00	5.00	4.29	0.65
When the investors put a large amount of capital into their investment, they tend to follow the others' actions to reduce the risks	166	2.00	5.00	4.01	1.03
I am overconfident in my investments in real estate	166	2.00	5.00	4.03	0.95
Confidence reduces herding behaviours among women investors in real estate	166	2.00	5.00	3.82	1.05
I have high trading volumes in the real estate market	166	1.00	3.00	1.78	0.60
I base my investment decisions on available market information on real estate	166	3.00	5.00	4.18	0.74
I have various sources of information for my investment decisions	166	1.00	3.00	1.86	0.54

From the study findings, majority of the respondents agreed that women based their investment decisions on the masses decisions of buying or selling (M=4.29 SD=0.71), the real estate market experience speculative bubbles often (M=4.29 SD=0.65) and that most women base their investment decisions on available market information on real estate (M=4.18 SD=0.74). Also, the study established that most women were overconfident in their investments in real estate (M=4.03 SD=0.95), when the investors put a large amount of capital into their investment, they tended to follow the others' actions to reduce the risks (M=4.01 SD=1.03), and that Confidence reduces herding behaviours among women investors in real estate (M=3.82 SD=1.05). However, majority of the women indicated that women have lack sources of information for that could guide them investment decisions (M=1.86 SD=0.54) and that women did not have high trading volumes in the real estate market (M=1.78 SD=0.60).

4.6 Rational Factors

The study sought to determine the extent to which respondents agreed with statements relating to rational factors.

Table 4.10: Statements Relating to Rational Factors

Rational Factors	N	Min	Max	Mean	Std Dev
Price movements have defined the way women invest in the real estate sector	166	3.00	5.00	4.02	0.62
Customer preferences drive investment decisions in real estate	166	3.00	5.00	3.95	0.67
Availability of complementing availabilities influence my investment in real estate	166	2.00	5.00	4.35	0.90

From the study findings, majority of the respondents agreed that availability of complementing availabilities influence women investment in real estate (M= 4.35 SD=0.90), price movements have defined the way women invest in the real estate sector (M= 4.02 SD=0.62) and that customer preferences drive investment decisions in real estate (M=3.95 SD=0.67).

4.7 Real Estate Investment

Participants were asked to indicate the amount on money they had invested in real estate. Results are presented in table 4.11.

Table 4. 11: Women's Real Estate Investment Worth

	Frequency	Percentage
Less than 10 million	75	45.2
10- 20 million	53	31.9
21-30 million	28	16.9
31-40 million	10	6.0
Total	166	100

The study established that, 45.2% of the responds had made investment work worthy less than 10 million. However, 31.9% indicated 10- 20 million, 16.9% indicated 21-30 million while 6.0% indicated 31-40 million. This implies that majority of the women investors in real estate in Nairobi County had made investments worth more than 10 million.

Table 4. 12: Statements Relating To Investments By Women In Real Estate

	N	Min	Max	Mean	Std Dev
I invest in residential properties within Nairobi County	166	3.00	5.00	4.20	0.71
I invest in land in Nairobi County	166	3.00	5.00	4.18	0.63
I invest in commercial properties	166	3.00	5.00	4.29	0.65
I invest in real estate investment trust	166	1.00	3.00	2.07	0.70

From the study findings, the respondents agreed that most women in Nairobi County have invested in commercial properties (M=4.29 SD=0.65). They also agreed that women invest in residential properties within Nairobi County (M=4.20 SD=0.71), and that women had invested in land in Nairobi County (M= 4.18 SD=0.63). However, they disagreed that women had not invested in real estate investment trust (M=2.07 SD=0.70). This shows that women investors within Nairobi County invest in various areas of real estate.

4.9 Regression Analysis

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The model summary is presented in the table below.

Table 4.13: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.695[a]	.483	.471	.55734

The study used coefficient of determination to evaluate the model fit. The adjusted $R^{2,}$ also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by independent variables. The model had an average adjusted coefficient of determination (R^2) of 0.471. Which implied that 47.1% of the variations on women decisiveness to investment in real estate sector are explained by the independent variables under study (heuristic factors, prospect factors, herding factors and rational factors).

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in table below.

Table 4.14: Summary of One-Way ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	46.794	4	11.699	37.660	.000[b]
1	Residual	50.012	161	.311		
	Total	96.806	165			

Critical Value = 4.90

From ANOVA statistics, the study established the regression model had a significance level of 0.000%, an indication that the data was ideal for making a conclusion on the population parameters as value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (37.660 > 4.90). This is an indication that heuristic factors, prospect factors, herding factors and rational factors all have a significant effect on women decisiveness to investment in real estate sector. The significance value was less than 0.05 indicating that the model was significant.

Table 4.15: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.118	.390		2.868	.005
Heuristic factors x_1	.516	.129	.249	3.993	.000
Prospect factors x_2	.622	.117	.327	5.332	.000
Herding factors x_3	.386	.123	.196	3.140	.002
Rational factors x_4	.598	.158	.235	3.793	.000

The equation ($Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 A x_3 + \beta_4 A x_4 + \boldsymbol{\varepsilon}$)

was fitted into

$Y = 1.118 + 0.516 X_1 + 0.622 X_2 + 0.386 X_3 + 0.598 X_4$

From the regression model obtained above, a unit change in heuristic factors would positively change women’s decisiveness to investment in real estate sector by a factor of 0.516 with a significance of 0.005. This shows that heuristic factors have a significant effect on real estate investment by women in Nairobi County. Results showed that a unit change in prospect factors would positively change women investment in real estate sector by 0.622 with a significance value of 0.000. This shows that prospect factors have a significant effect on real estate investment by women in Nairobi County.

The regression results showed that unit change in herding factors would increase women's investment in real estate sector by a factor of 0.386 with a significant value of 0.002. This shows that herding factors have a significant effect on real estate investment by women in Nairobi County. Finally, regression results show that unit change in rational factors would enhance women's investment in real estate sector by 0.598. It shows a significant effect as the significance value of 0.000 was lesser than 0.05. This shows that behavioural factors have a significant effect on investment in real estate by women in Nairobi County.

4.10 Discussion

The findings showed that heuristic factors would positively affect women's investment in real estate sector. This indicates that heuristic factors improve real estate investment among women investors. The findings concur with those of Sattar, Toseef and Sattar (2020) whose findings indicated that investment decision was affected by heuristic behaviors. They also concur with the findings of Ogunlusi and Obademi (2019) who found that there existed a significant effect of behavioral finance and investment decision and those of Anuum and Ameer (2017) who found that heuristic factors have significant effect on investment decision making

The results show that prospect factors positively influenced women's investment in real estate sector. This shows that prospect factors improve the level and number of real estate investment among women. The findings support Anuum and Ameer (2017) who found that prospect factors have significant effect on individual investment decision making. Audu and Abubakar (2019) found that prospect factors had non-significant impact on investment decision.

The research findings showed that herding factors have a positive effect on real estate investment among women investors. This indicate that herding among investors improves their investment decisions. Akinkoye and Bankole (2020) who found that herding had a significant effect on investment decision among investors. Anuum and Ameer (2017) found that herding factors have significant effect on individual investment decision making. The findings differ with those of Audu and Abubakar (2019) found that herding had not significant impact on investment decision.

The results show that rational factors positively influenced women's investment in real estate sector. This shows that rational factors improve the level and number of real estate investment among women. The study findings concur with those of Ndinda, Anyango and Rotich (2016) who found a positive effect of rationality factors on investment decisions. Audu and Abubakar (2019) found that rationality had non-significant impact on investment decisions.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, conclusions, recommendations, and areas for further research. The main objective of the study was examining the effect of behavioral factors on real estate investment among women in Nairobi County.

5.2 Summary

Inferential results show that positive relationship between heuristic factors and women's investment in real estate sector. Qualitative information showed that women are overconfident when making the investment decisions in real estate. Majority of the women make real estate investment estimates based on the industrial estimates and that they prefer prime property in their investment decisions.

Further the study established that women make use of easily available information on real estate excessively also availability of opportunities make women engage in real estate financing. When individual investors use heuristics, they reduce the mental effort in the decision-making process, However, that leads to errors in judgment and, as a result, investors make incorrect investment decisions, which could lead to the market becoming inefficient.

Qualitative data revealed that most of the women avoided stress by following prospects in real estate financing. On the other hand, real estate investors refuse to sell decreasing property and sell increasing one and that most women considered themselves risk-averse investor when it comes to real estate investment. Descriptive results show that women were less likely to take risk by investing in real estate, also women in Nairobi County were less likely to always account for any losses or gains in their real estate investments and that woman were less likely to hold properties for some time before selling on increasing properties to avoid regrets. Regression results show a positive significant relationship between prospect factors and women's decisiveness to investment in real estate sector.

Qualitative results also show that women investors in Nairobi County based their investment decisions on the masses decisions of buying or selling. Confidence reduces herding behaviours among women investors in real estate and that most women based their investment decisions on available market information on real estate. Further the study revealed that when the women investors in Nairobi County put a large amount of capital into their investment, they tend to follow the others' actions to reduce the risks, the real estate market experience speculative bubbles often and that most women were overconfident in their investments in real estate. However, the results show majority of the women disagreed that they have high trading volumes in the real estate market and that they lacked various sources of information for that could make them make quality investment decisions. The research findings showed that herding factors have a positive effect on real estate investment among women investors. This indicate that herding among investors improves their investment decisions.

On rational factors, results show that availability of complementing availabilities influences the way women investment in real estate, customer preferences drive investment decisions in real estate and that Price movements have defined the way women invest in the real estate sector. The results show that rational factors positively influenced women's investment in real estate sector. This shows that rational factors improve the level and number of real estate investment among women.

5.3 Conclusion

Based on findings the study concludes that majority of women in real estate investment were guided by heuristics factors before settling on a particular choice, however results show that failure to rely on quantitative information and being driven by heuristics factors can lead to poor decision-making based on a limited data set, but the speed of decisions can sometimes make up for the disadvantages. The study concludes that there is positive relationship between heuristic factors and women's investment in real estate sector, Nairobi County.

The study concludes that women in real estate investors refuse to sell decreasing property and sell increasing ones, women avoid stress by following prospects in real estate financing and that the certainty effect leads to individuals avoiding risk when there is a prospect of a sure gain. It also contributes to individuals seeking risk when one of their options is a sure loss. The study also concludes that a positive significant relationship exists between prospect factors and women's investment in real estate in Nairobi County.

The study concludes that women base their investment decisions on the masses decisions of buying or selling. When the investors put a large amount of capital into their investment, they tend to follow the others' actions to reduce the risks. Majority of the Nairobian women investors in real estate lack sources of information to guide their investment decisions. The study also concludes that herding factors has a positive significant relationship exists between prospect factors and women's investment in real estate in Nairobi county.

The study concludes that rational approach to decisions is based on scientifically obtained data that allow informed decision-making. Rational investors use data in reducing the chances of errors, distortions, assumptions, guesswork and subjectivity. The study further concludes that price movements have defined the way women invest in the real estate sector. From the regression analysis, the study concludes that rational factors influence the investment in real estate by women in Nairobi County.

5.4 Recommendations

Women in real estate business should be guided by heuristic factors as this could led to more informed investment choices. The government and business community should make investment information available; this will enable investors to weight risk and make informed investment decisions. Women investors must also consider prospect factors when making investment decisions. It is useful for investors to understand their biases, where losses tend to cause greater emotional impact than the equivalent gain.

The study recommends that women in real estate business should improve on herd factors which improved investment. This would enhance better decision investment decision improving financial performance of their ventures. Women must also adopt rational model of decision making. This will help them make choices that maximize investment benefits and minimize costs; rational decision making can help the decision makers to deal with difficult problems in a complex environment.

5.5 Limitations of the study

The study was limited by the lack of willingness by the respondents to give data. This was overcome by giving an assurance that the data would only be used for academic purposes. The study was also limited to behavioral factors and real estate investment in women. A focus on other genders may give different results. The time available for the data collection was limited. This made the researcher seek for a research assistant to assist in the data collection.

The study was limited by the focus of the research. The study looked at behavioral factors and real estate investment. This limited the application of the findings to other sectors where other factors may influence real estate investment. The study was also based in Nairobi County. A similar study in a rural county may give different results. The study was limited by the sample of the study. The sample may not be representative of the larger women population across the country. The adoption of a larger sample may give other outcomes on the variables considered in this research.

The study was also limited by the data utilized in this research. This research made the use of primary data collected from women in Nairobi county. The use of other types of data sources may give differing results on behavioral factors and investment in real estate. The study was also limited by the research methods adopted in the analysis. The study used multiple regression and descriptive statistics to show whether the behavioral factors and investment in real estate were related. The utilization of models like correlation may give different results on how behavioral factors and investment relate in real estate.

5.6 Area for Further Studies

The study examined the effect of behavioral factors on real estate investment among women in Nairobi County. Future studies may focus on similar research in rural counties like Nyeri County. This would allow the researcher and scholars to compare results. The future studies can also focus on other factors influencing real estate investment other than behavioral factors. This is because the behavioral factors were not the only factors contributing to the change in real estate investment among women.

The study was limited to behavioral factors and real estate investment in women. A focus on other genders may give different results. This research recommends a similar research based on other genders like men which would enable us to compare results. The study was limited by time available for the data collection. The researcher recommends a similar research based on a longer period of time for a deeper investigation into the issues around real estate investment.

The study was limited by the focus of the research. The study looked at behavioral factors and real estate investment. This limited the application of the findings to other sectors where other factors may influence real estate investment. The study was also limited by the location which is Nairobi County. A similar study is recommended in a rural county for comparison of results. The study was also limited by the data utilized in this research. This research made the use of primary data collected from women in Nairobi County. The study recommends that other researchers use of other types of data sources for comparison of results.

The study also recommends that other researchers undertake a similar research based on models like correlation and one sample test to check on the effect of behavioral factors on investment in real estate. This will enable scholars to get the different views and outcomes relating to behavioral factors on investment in real estate. In addition, the researcher recommends that future researchers to undertake a similar study based on a larger sample and wider population. This would give a deeper understanding on the effects of behavioral factors on investment in real estate investment.

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APPENDICES

Appendix I: Questionnaire

Section I: Demographics

1. What is your age?

Below 25 years [ ]

25-35 [ ]

36-45 [ ]

46-55 [ ]

56 years and above [ ]

2. What is your highest level of education?

Post-graduate [ ]

Graduate [ ]

Diploma [ ]

Certificate and below [ ]

3. What is your number of years in real estate investment?

Below 1 years [ ]

1-5 years [ ]

6-10 years [ ]

11-15 years [ ]

More than 15 years [ ]

4. what is your marital status?

Married [ ]

Single [ ]

Separated [ ]

Divorced [ ]

Widowed [ ]

Section II: Heuristic Factors

5. To what extent do you agree on the following statements? (1-very little extent,2-little extent,3-moderate extent,4-great extent,5-very great extent)

	1	2	3	4	5
Availability of opportunities make me engage in real estate financing					
I prefer prime property in my investment decisions					
I make real estate investment estimates based on the industrial estimates					
Women make use of easily available information on real estate excessively					

Women are overconfident when making the investment decisions in real estate					

Section III: Prospect Factors

6. To what extent do you agree on the following statements? (1-very little extent,2-little extent,3-moderate extent,4-great extent,5-very great extent)

Prospect Factors	1	2	3	4	5
I take risks in my investments in real estate					
I am risk-averse when it comes to real estate investment					
Real estate investors refuse to sell decreasing property and sell increasing ones					
Women hold their properties for some time before selling on increasing properties to avoid regrets					
I avoid stress by following prospects in real estate financing					
I always account for any losses or gains in my real estate investments					

Section IV: Herding Factors

7. To what extent do you agree on the following statements? (1-very little extent,2-little extent,3-moderate extent,4-great extent,5-very great extent)

	1	2	3	4	5

I base my investment decisions on the masses decisions of buying or selling					
The real estate market experience speculative bubbles often					
When the investors put a large amount of capital into their investment, they tend to follow the others' actions to reduce the risks					
I am overconfident in my investments in real estate					
Confidence reduces herding behaviours among women investors in real estate					
I have high trading volumes in the real estate market					
I base my investment decisions on available market information on real estate					
I have various sources of information for my investment decisions					

Section V: Rational Factors

8. To what extent do you agree on the following statements? (1-very little extent,2-little extent,3-moderate extent,4-great extent,5-very great extent)

Rational Factors	1	2	3	4	5
Price movements have defined the way women invest in the real estate sector					

Customer preferences drive investment decisions in real estate					
Availability of complementing availabilities influence my investment in real estate					

Section VI: Real Estate Investment

9. How much money have you invested in real estate?

Less than 10 million [ ]

10- 20 million [ ]

21-30 million [ ]

31-40 million [ ]

More than 40 million [ ]

10. To what extent do you agree on the following statements? (1-very little extent,2-little extent,3-moderate extent,4-great extent,5-very great extent)

	1	2	3	4	5
I invest in residential properties within Nairobi County					
I invest in land in Nairobi County					
I invest in commercial properties					
I invest in real estate investment trust					

Thank You