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Moderating role of Financial Literacy on the Relationship between Behavioural Biases and Real Estate Investment Performance in Kenya

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ABSTRACT

In contemporary finance matters, financial literacy has been dubbed a key component of investment performance. This study sought to explore the theoretical perspective of financial literacy and its impact on real estate performance in Kenya. The study was guided by heuristics theory, prospect theory, herding theory and investment market theory. The study results indicate that financial literacy moderates the relationship between behavioral biases and performance of real estate industry in Kenya. Based on these findings, the study recommends that when evaluating investments, investors should avoid at barely looking at the risk and return characteristics of that individual investment but also consider the role and impact of financial literacy on investment performance

Keywords: *Financial Literacy, Behavioral Biases, Investment Performance, Heuristics Theory, Prospect Theory, Herding Theory, Investment Market Theory*

I.0 INTRODUCTION

Financial literacy incorporates financial skills that are utilized in making beneficial financial decisions (Wagland & Taylor, 2009; Kumari & Ferdous, 2019). According to Yusnita et al., 2022 financial literacy refers to an investor's capacity to analyze and manage finances. Financial literacy constructs of, the ability to make educated decisions about using money in the present and in the future has popularly been used to assess its moderating role in investment decisions (Hetling & Postmus, 2014). Copur & Gutter, Citation, 2019 delimits financial literacy from just making good investment decisions, but it also guides entities in assessing, evaluating and making appropriate plans which in turn serve as a long-term source of income. Financial literacy includes managing the incomes and expenditures of the people and making investments in the suitable sector for their future benefits. It also integrates an informed analysis of everyday situations, such as savings, borrowings, credit,and insurance (Singh & Kumar, 2017; Roy & Jane, 2018)

Monetary literacy benefits the consumers in making decisions about investment by allowing them to increase the returns on wealth (Jappelli & Padula, 2013). Behavioral finance is a significant discipline that analyzes investors' behavior in making different financial decisions (Yusnita et al., 2022). Prior literature shows the facilitating role of financial literacy with behavioural factors and investors' decision making. Hence this study set out to explore the function of financial literacy in real estate market within Kenya.

Financial markets worldwide have more and more become reachable to the 'small investor,' as financial services as well as novel products grow extensive (Lusardi and Mitchell, 2013). Lusardi et al., (2013) describe financial literacy as ability of people to interpret financial information moreover make decisions that are informed concerning investment. Current hypothetical study shows how monetary information can be shed as investment type in individual capital. Regarding this approach, investors who make financial know-how can receive beyond average probable proceeds on their investments; nonetheless there will still be various best financial ignorance levels.

Nevertheless, within the past few years, a small number of authors started to explore the decision in order to attain monetary literacy as well as the relations between, saving, investment behaviour and financial knowledge (Jappelli and Padula, 2013); Delavande, Rohwedder, and Willis, 2008); Hsu and Shiu, 2010; Lusardi, Michaud and Mitchell, 2013).

According to Delavande, Rohwedder and Willis (2008), people accumulate financial knowledge over their lives by investing time and energy educating themselves about issues that affect ability of households to control its expenditures, savings as well as income efficiently and effectively. People require knowledge on finance to control everyday issues for instance shopping for the lowest price, budgeting, paying bills, using a credit card and balancing a checking account. They also need the knowledge in search of goals that are long-run together with housing, having access to adequate resources during retirement and, children's education.

Broadly, financial knowledge includes appreciating matters for instance returns of alternative investments and knowledge of the risks, compound interest, benefits of risk diversification, tax law, options for mortgage finance, credit institutions, costs of alternative financial and trustworthiness et cetera., all of which help investors with the aforementioned tasks. People with every day experience to monetary knowledge via their profession could gain by having superior monetary knowledge which could convert into superior assets build up as compared to people who don't enjoy such spillovers from their profession (Delavande, Rohwedder and Willis, 2008).

A strong association between the likelihood of engaging in a number of financial practices and monetary knowledge has been documented: tracking expenses, paying bills on time, budgeting, saving out of each paycheck, paying credit card bills in full each month, maintaining an emergency fund, setting monetary goals and diversifying investments (Hilgert et al., 2003). Thus, financial literacy is a part of investment decisions that supports selecting the most suitable investment opportunities. Appropriate investment decisions make the life of investors prosperous (Raut, 2020).

Financial knowledge is investment behaviours predictive together with participation of stock market (Kimball and Shumway, 2006; Christelis et al. 2006; van Rooij, et al. 2011), improved diversification as well as more frequent trading of stock (Graham et al. 2009) and choosing a low fee investment portfolio (Hastings 2012; Choi et al. 2011).

2.0 LITERATURE REVIEW

Behavioural finance opines that investors' behaviours, lead to different market anomalies (Yusnita et al., 2022). Numerous factors could affect the investment decisions of both individuals and corporations, including financial literacy (Ayaa et al., 2022). Shao and Wang (2013) conducted research on irrational behavior of managers. The researchers aim is to investigate irrational behaviour of managers as well as why it exists in decision-making of business capital investment. The researchers give the approach on how to discover irrational behaviour of managers within decision-making of corporate capital investment; suggest hypotheses on reasons for each irrational behaviour; classify the irrational behaviour by the steps in decision-making; summarize the real reasons for each irrational behaviour according to the experiential findings; carry out experiential test via questionnaires and hypothesis testing. In this study, when approximating flow of cash, managers in a firm will utilize heuristics because they lack mind clear frame therefore psychological factors as well as cognitive bias occur in heuristics. The researchers report that the major reason that causes irrational behaviour in the establishment of discounted rate is the lack of monetary literacy. As the majority of managers are puzzled with the cost of capital concept, models of discounted rate and risk management method, psychological factors as well as cognitive bias work in this step. The researchers report that managers act irrational during the time of decision making because cognitive biases influence their behavior.

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Investors learn from the past, implying that past experiences may influence the decisions an individual is going to take in the future. It seems reasonable to expect an investor to improve his returns as his trading experience increases. This is supported by Nicolosi*et al.* (2008) who found out that investor confidence in the ability to make rational future decisions increases as the level of experience rises. Gervais and Odean (2001) and Daniel *et al.* (1998) argue that investors that get more precise private signs concerning returns of future surplus stock will seem to exhibit better ability of trading, since the increased sign accuracy improves their ability of selection and as a result their trades' successive proceeds.

Nevertheless, Barber and Odean (2000), Barber *et al.* (2007) found out that on average individuals make poor decisions. They noted that irrespective of a trader having participated in an event, the experience acquired doesn't help to improve investment performance. Nevertheless, errors of judgment only don't infringe rationality. According to Sargent, (1993), the rational expectations supposition doesn't refute that citizens frequently create errors of forecasting; however, it does propose that errors will not tirelessly happen on one side or the other. That is to say, agents aren't probable to create mistakes that are systematic. Establishing if individuals get a lesson from their past experiences specially, if experience of trading affects behavior plus maybe more significantly, getting better performance of investment can be a major move towards determining the relevance of the rationality supposition.

Financial literacy was a significant issue in conquering the hurdles to investments and the associated risks (Haliassos and Bertaut, 1995). Further, they also found that the less literate was less likely to make informed investments compared to their financially literate counter parts. As such this study took financial literacy to be the moderating variable between behavioral biases and real estate investment performance.

3.0 THEORETICAL FRAMEWORK

Behavioral economists have borrowed information of human being cognitive behavior theories from, sociology, anthropology as well as psychology in bid to clarify the different irrational investor behavior in the investment markets. This study was guided by four theories, Prospect theory, Herding Theory, Regret Theory, Market Theory

3.1 Prospect Theory

According to Prospect theory, if a shareholder is risk-averse over achievements, as such he ought to sell a security which is trading at an achievement anchored to the purchase price; also, if he is risk seeking over losses, he ought to be motivated to grasp on a security which is trading at a defeat (Kahneman and Tversky, 1979).

Basically, the prospect theory elucidates the obvious irregularity in being behaviour when evaluating risk underneath doubt. Ideally this is not an indication of 'irrationality' but it is imperative to recognize the asymmetry of human choices; however, this is an indication that losses are prejudiced more greatly than equivalent number of achievements. The interpretation is that losses harm more than achievements satisfy therefore shareholders will be risk reluctant when selecting between risk and gains takers when selecting between losses.

The theory of prospect describes numerous mind states that could be imagined to influence an investor's processes of decision-making. However, even if prospect theory offers no psychological explanations for the processes stated in it. Furthermore, factors that are equally important to decision making processes have not been included in the model, such as emotion. Therefore, this theory does not fully serve as a basis for rational decision making.

3.2 Herding Theory

Concerning financial markets, the term herding is typically termed as the behaviour of a shareholder emulating the observed events of others otherwise the market movements rather than following his/her own information and beliefs (Kudryavtsev, Cohen & Hon-Snir, 2013). Because human being biases are not powerful enough to shift returns as well as market prices, they only have actual irregular effects if they create communal contamination with a tough touching content, that leads to more extensive phenomena for instance herd behaviour, subsequent, it is normally accepted that the herding flood might result to a condition in which the price of market fail to reproduce all applicable information; therefore, the market turn into unstable as well as moves towards incompetence (Kudryavtsev, Cohen & Hon-Snir, 2013).

Decisions made by a single shareholder which are prejudiced by the decisions of other shareholders are usually affected by the behavior of herding (Hott, 2009). As a result, all the decisions of investment that are not exclusively based on the financial information of a given corporation or an industry field ought to be interpreted by the use of the Theory of Herding. The greater part of researchers as well as economic journalists concurs that unreasonable investment behaviour has an effect on capital markets. Nevertheless, the opinions concerning the impact level as well as its nature differ. Literature has shown that the major issue unreasonable investment decision-making results to is distortions of money market (Shiller, 200; Welch, 2000; Shleifer, 2000; Lu, 2010; Lawlor, 2009; Singh, 2012). Herding behaviour is particularly concluded to result to a chain of deceptive information fuelling the irregularities on capital markets. According to Welch (2000), the behavior results to a “snowball-effect” which is not easy to stop.

3.3 Regret Theory

The theory of regret is a significant theory of decision under doubt (Bell, 1982; Loomes and Sugden 1982). This theory has spontaneous appeal, and it’s based on the view that human being do not care not only about what they get but also about what they could have gotten if they had a made a different choice.

Several literatures have shown the significance of regret in shaping the preferences of people under risk (Zeelenberg et al. 1996; Zeelenberg 1999; Larrick 1993). The theory of regret has a comparatively simple arrangement, which is based on only two functions: a function that captures the impact of regret and function of utility that captures attitudes toward results.

Despite its straightforward structure, the theory of regret can account for numerous of the observed divergence from expected usefulness. The important to giving details to such deviations is that makers of decisions are regret reluctant, the psychological perception that human being are disproportionally reluctant to big regrets. The regret theory unique feature is that it forecasts breach of transitivity. Such breaches are a consequence of aversion of regret. The breaches have been established experimentally (Loomes et al. 1991) furthermore, they cannot simply be contained by the other major nonexpected theories of utility, together with theory of prospect (Tversky and Kahneman 1992; Kahneman and Tversky 1979).

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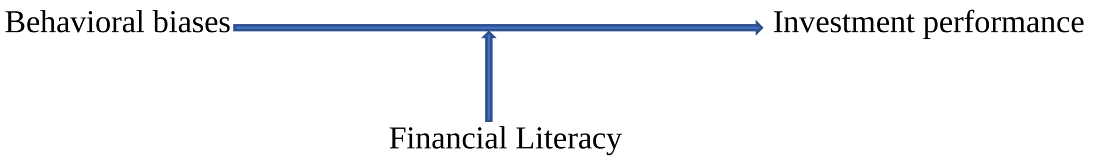
3.4 Investment Market Theory

The role of market information on pricing of financial securities dates back to the 19th Century. Several scholars have been credited with shaping the techniques of assets valuation and use of information. Over the Century, two schools of thought have been developed (Bodie, 2005). On one extreme are those financial specialists to believe that information is irrelevant in valuation of security prices. These fundamentalists assume that investment prices take a random walk or a drunkard walk in which case then, it would be difficult to predict the return from an investment. There is a large convergence of opinion on the random walk theory Bachekier (1900), Cowels (1933), Kendall (1953), Roberts (1959). This implies that no one using either available or prospective information can determine the asset prices and that information available in the market is absolutely irrelevant. This is way contrary to available decision theory, which postulates that relevant and reliable information is crucial to sound decision making. However, in the event that this is not the case then, there could be market bias and inconsistencies based on this school of though.

Fama (1970) affirms that a resourceful market is that market in which prices at all times completely reflect all accessible information. Jones (1993) and Shleifer (2000) stipulate that an efficient market can exist if there is existence of a big number of rational shareholders who participate actively in the market in the attempt to capitalize on profits and if irrational investors exist, then their irrational trades cancel each out without affecting the prices.

4.0 CONCEPTUAL FRAMEWORK



Operational Framework for Behavioral Biases of Real Estate Investors on Investment Performance in Kenya

5.0 DISCUSSION AND CONCLUSION

5.1 Discussion of the Study

This study set out to assess the moderating effect of financial literacy on the relationship between real estate investor's behavioral biases and investment performance in Kenya. To achieve this objective the respondents were asked to indicate their level of agreement in response to identified financial literacy statements. The study hypothesized that financial literacy has no statistically significant effect on the relationship between real estate investor's behavioral biases and investment performance. The results showed that the moderating variables improved the strength of the relationship between real estate investor's behavioral biases and investment performance. Thus, the hypothesis that financial literacy does not affect the relationship between the real estate behavioral biases and investment performance in Kenya, was rejected and the alternative hypothesis accepted that, "Financial literacy has a statistically significant positive influence on the real estate investment performance". Using the standardized coefficient financial literacy had a beta value of 0.381 with a t value of 5.140 and p=.000. Since $p < 0.05$, we reject H0 at significance level 0.05.

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Multiple regression analysis showed a positive and strong relationship, R2=0.667 and adjusted R2 = 0.611 which shows that 66.7% change of real estate performance can be explained by a change of one unit of all the predictor variables; heuristic based bias, prospect bias, herding bias and market-based bias jointly with the moderating variable of Financial Literacy. This is an increase from 57.6% to 66.7% when the moderating variable was held constant implying that the moderator has a positive effect on the overall change in all the variables jointly. The results for the relationship between behavioral biases and investment performance indicate that the t-test found beta coefficient of – 0.495 for the behavioral biases and has a p-value of p=0.000 which is less than p value p=0.05 and are therefore significantly difference from 0. The corresponding t value for the combined behavioral biases was t= -9.340, p=0.000 which was found to be statistically significant, because t value, at 0.05 were less than p value, p=0.05. When the financial literacy was included as a moderating variable the beta coefficient was -0.310with a p-value of p=0.000 which is less than p value p=0.05 and are therefore significantly difference from 0. We therefore conclude financial literacy has a significant effect on the relationship between the real estate behavioral biases and investment performance in Kenya.

5.2 Conclusion of the Study

The results indicate that financial literacy moderates the relationship between investor behavior and real estate performance in Kenya. The implication of these findings is that the real estate markets players in Kenya need to identify the financial literacy of the investors and how it affects the behavior of the investors plus their investment performance then target these areas for investor education to avoid distorting the market.

This means that financial literacy positively influences the relationship between real estate Investors behavioral biases and investment performance in Kenya. Individuals with higher financial literacy can engage in better financial behaviors and investment decisions as opposed to individuals' lower financial literacy who are predisposed to making poor investment decisions, negatively influencing their finances (Gilenko and Chernova, 2021).

The findings of this study are supported by Roy & Jane, (2018) who noted that if anybody doesn't have ability to analyses available financial options, he cannot be considered as financially literate. Therefore, financial skills enable individuals to make informed decisions about their money and minimize their chances of being misled on financial matters. Accordingly, person should have knowledge as well as skills to make some better financial decisions in life (Singh & Kumar, 2017). Therefore, boosting financial literacy skills may well be critically important for financial and investment decisions. Roy and Jane (2018) further opined that when investors become more versed in financial matters, they increasingly become financially cultured and it is predicted that investors become more financially competent

The findings are supported by studies of Hilgert et al. (2003) who documented a strong relationship between financial knowledge and the likelihood of engaging in a number of financial practices including investment management and setting financial goals. Further studies show that financial literacy is predictive of investment behaviors including stock market participation (van Rooij, et al. 2011, Kimball & Shumway 2006, Christelis et al. 2006), choosing a low fee investment portfolio (Choi et al. 2011, Hastings 2012), and better diversification and more frequent investments (Graham et al. 2009).

Other studies by Haliassos and Bertaut (1995) pointed out that financial literacy is an important factor in overcoming the barriers to investments and the associated risks and that the less literate are less likely to make informed investments compared to their financially literate counter parts.

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