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## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/15391  
DOI URL: <http://dx.doi.org/10.21474/IJAR01/15391>



### RESEARCH ARTICLE

#### BEHAVIORAL PREJUDICE AS A MODERATOR TO THE RELATIONSHIP BETWEEN STRATEGIC INVESTMENT PROCEDURES & OPERATIONAL PERFORMANCE OF REAL ESTATE FIRMS: EVIDENCE FROM KENYA

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#### Manuscript Info

##### Manuscript History

Received: 15 July 2022

Final Accepted: 17 August 2022

Published: September 2022

##### Key words:-

Risk, Irrationality, Portfolio, Facts, Decision Making, Preferences, Profitability, Economics, Psychology

#### Abstract

Behavioral prejudice results in decision making in which reasoning is influenced by emotions, usually leading to irrational financial decisions. The interest in prejudice caused by faulty cognitive reasoning or emotions that affect individual financial outcomes has seen the emergence of research on behavioral finance as a concept. The nerve in the process of decision making is how the investor perceives risk. Risk is a significant factor in analyzing decision situations under uncertainty. Unfortunately, majority of people are not consistent in how they approach risk. Although investors' intention is to act rationally and make informed decisions, behavioral aspects affect the decision process and cause investors to deviate from the normative models. This article sought to assess the moderation effect of behavioral prejudice on the relationship between strategic investment procedures and operational performance of real estate firms in Kenya in the period 2018-2022. It focused on three variables; strategic investment procedures as the independent variable, operational performance as the dependent variable and behavioral prejudice being the moderator variable. Theoretical literature illustrates individual relationships between these variables but the combined influence of the three variables on operational performance has not been previously studied. A correlational survey design and census sampling method were used to draw 231 registered real estate investment firms in Kenya's capital city of Nairobi. Primary data was gathered using structured questionnaires to collect data from 231 senior financial managers and analyzed by regression analysis. Behavioral prejudice and strategic investment procedures as predictor variables had a significant  $R^2$  of 32.8% ( $p < 0.01$ ). The  $R^2$  of incorporating the interaction term between behavioral prejudices and strategic investment procedures was  $R^2 = 39.7%$  ( $p < 0.01$ ); change of  $R^2 = 6.8%$  ( $p < 0.01$ ) implying that behavioral prejudices significantly moderates the relationship between the independent and dependent variables. In conclusion, strategic investment procedures significantly predict operational performance but incorporation of behavioral prejudices significantly enhances the predictive power. The study recommends real estate firms focus on behavioral prejudices so as to make informed and accurate investment

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decisions thus enhancing operational performance. Contrary to prior research, the study has shown that strategic investment procedures and behavioral prejudices interacting together affects Operational performance thus bringing new knowledge to the area of finance.

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## **Introduction:-**

According to the efficient capital market theories, irrational investors distort the market rates making professional traders' profit from arbitrage possibilities. However, investment decisions are heavily influenced by human instincts and behavioral prejudice. Most economic and financial theories assume that individuals make investment decisions based on their rationality and consideration of all available facts but according to Raafat et al., (2009), there is evidence to suggest that human beings make decisions and choices based on irrationality, inconsistency and incompetence when faced with obscurity.

Researchers do not fully understand the link between behavioral prejudice, strategic investment procedures and operational performance making them sole subjects of research. Shefrin (2000) concluded that investors often make illogical investing decisions which plays a significant role in financial planning and is complicated as investors usually want to maximize returns but are not always that sensible. Investment managers have a daunting task to undertake when putting together an effective investment portfolio. An investor can achieve higher returns and spread risk by considering a wide range of general criteria when designing a portfolio.

In the field of behavioral finance, investors, analysts, and portfolio managers are examined for how various psychological qualities influence their decision-making (Brown & Reilly, 2004). Merton Miller's and Franco Modigliani's assumptions about rationality and utility are no longer applicable since there is no evidence to it. According to efficient capital market theories, irrational investors distort prices, whereas skilled traders gain from arbitrage possibilities leading to money decisions being heavily influenced by human emotions and prejudice.

Individual preferences are assumed to be stable, well-defined, and rationally maximized in standard economics. Behavioral finance and economics are terms coined by Raafat et al., (2009). They argue that behavioral economics integrates psychology and economics to explain why and how individuals make irrational decisions whether they invest, save, or borrow money. Most commonly, overconfidence has been investigated by asking people how confident they are in their opinions or replies. An integrated approach to herding offered by Raafat, Chater, and Frith, (2009) described two fundamental issues: the transmission methods between individuals and the patterns of linkages between them. The overconfidence effect manifests itself in a propensity to overstate one's position on a metric of judgment or performance (Kahneman & Daniel, 2011).

Property owners are motivated by the potential of regular capital returns from their investments, as well as inflation protection and social recognition rewards. This study sought to fill these gaps by determining the effect of strategic investment procedures on operational efficiency of real estate investment firms in Kenya. Further, existing research has not examined how investment procedures and operational performance are affected by behavioral prejudices. Consequently, there is still a void on the connection between the two variables and how behavioral biases impacts on them. It is also unclear how behavioral biases impacts collective decision making when a committee of managers are to decide on an organization's preference. Therefore, this study was aimed at investigating the effect of behavioral prejudices on the relationship between strategic investment procedures and operational performance of real estate firms in Kenya.

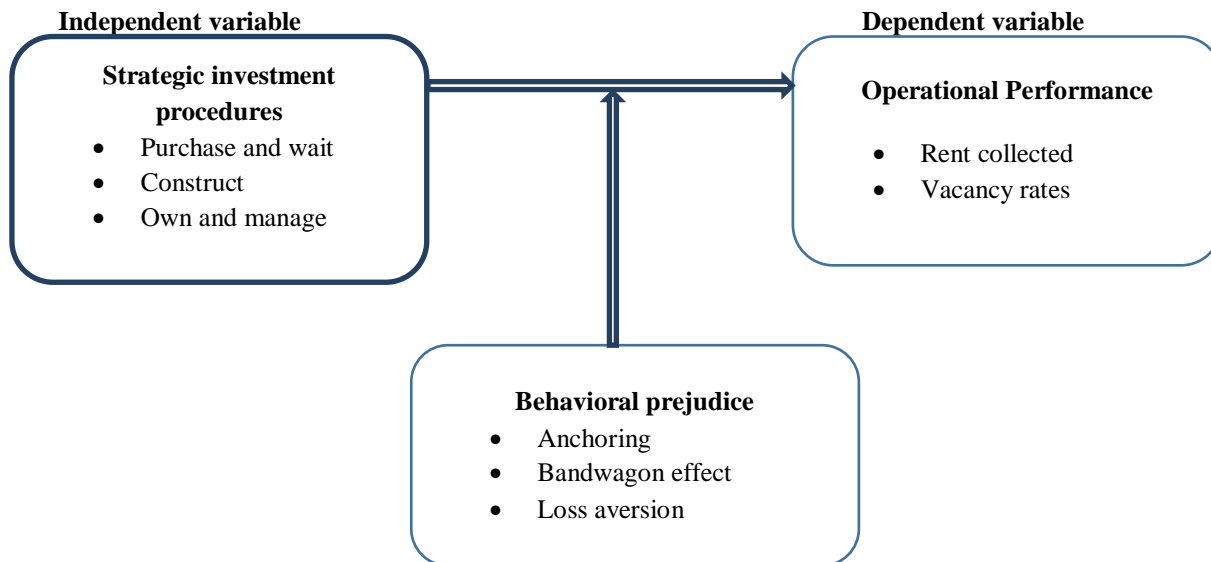
## **Behavioral prejudice, strategic investment procedures and operational performance**

Modern financial theory assumes that a company's sole goal should be to maximize the market value of its stock or the wealth of its owners. It is represented in terms of SW (Shareholders' Wealth) =  $NS \times MV$  (Number of Shares held x Market Value Per Share). To maximize shareholders' wealth, the market value per share should be maximized given the number of shares owned. As a result, every business action should aim to maximize the value of the company's portion of the market. Investment firms should take on projects with a positive Net Present Value (NPV), meaning that the current value of cash inflows should exceed the present value of cash outflows, in order to

maximize shareholder wealth. A firm's operational efficiency is therefore measured by the ability of its managers to maximize the shareholders' wealth and increase a firm's profitability (Becchetti, et al., 2008).

Operational performance involves the profitable, efficient and effective use of organization's resources in continuously, with clearly laid-down financial policies relating to the operation. In order to examine the efficiency and lucrativeness in making use of resources as well as observing the financial policies laid down in this regard, activity or performance ratios are used and in this case rental returns and vacancy rates will be analyzed. Strategic investment decisions in real estate may include purchase and wait strategy, construct strategy and own and manage strategy which are affected by behavioral prejudices such as anchoring, bandwagon effect and loss aversion. The conceptual framework can be illustrated as shown.

**Figure 1.1:** - Moderating effect of behavioral prejudice on strategic investment procedures and operational performance.



**Source:** Adapted from K'otieno, (2012)

To meet the study objective, modifications were made to the conceptual framework from K'otieno, (2012) who used an exploratory study methodology to investigate the behavioral biases of real estate investors and their investing performance in the real estate sector. As a result, they were relevant to how we conducted our investigation. The rebuilt framework shows strategic investment strategies as the independent variable that impacted operational efficiency, the dependent variable and behavioral prejudice was predicted to modify the connection between the independent and the dependent variables.

A study by Hoffrage & Ulrich, (2004) examines how investors' investing intentions and techniques impact the portfolios they choose and their results. This study's results are based on data from a representative sample of customers at the Netherlands' largest online broker. Investors who depend on fundamental analysis beat those who rely on technical analysis because they have greater ambitions and turnover, take more risks, and are more overconfident. It was shown in their research that human beings are reasonable and that contemporary economic model are founded on the notion that most investors aim to avoid risk and maximize rewards. To construct a compelling portfolio, investors weigh the risks and rewards of various investment possibilities. Investors need to build a well-diversified portfolio to guarantee that the risk is evenly distributed. As a result, investors are more concerned with risk than rewards when making investment decisions.

Even while US tax laws encourage investors to avoid locking in gains for as long as possible, they discovered that investors were 50 percent more inclined to sell a winning position than a losing position. They also found that investors' returns were damaged by selling wins and holding losers. Overconfidence, availability, representativeness, anchoring, gamblers fallacy, loss aversion, regret avoidance, and mental accounting are among the behavioral biases

that affect institutional investors on the Nairobi Stock Exchange, according to Waweru, et al., (2008). Geltner, (2014) discovered in their study of commercial real estate market data on loss aversion and anchoring, experienced investors and more significant, more sophisticated investment institutions exhibit at least as much risk-averse behavior. Speculative price bubbles in the real estate market are impossible if they are not accompanied by behavioral elements, according to Brezezicka and Winsniewski (2014) in a study of the price bubble in real estate.

### **Moderating effect of Behavioral prejudice on the relationship between Strategic investment procedures and Operational performance**

This study conducted an investigation of 231 registered real estate firms operating in Nairobi county, Kenya. Data was collected through structured questionnaires and sampled census sampling technique used hence data from all the 231 firms was analyzed. The information gathered was examined using descriptive and inferential statistics which were utilized to quantify dispersion and central tendency. Hierarchical multiple regression analysis was used in cases when means and averages were not available and also to determine the connection between the variables. Moderating effect of behavioral prejudice on the relationship between strategic investment procedures and operational performance was analyzed by employing the hierarchical regression models described below.

$$Y_i = \beta_0 + \beta_1 X_i + \epsilon \dots \dots \dots \text{Model 1}$$

$$Y_i = \beta_0 + \beta_1 X_i + \beta_2 Z_i + \epsilon \dots \dots \dots \text{Model 2}$$

$$Y_i = \beta_0 + \beta_1 X_i + \beta_2 Z_i + \beta_3 X_i Z_i + \epsilon \dots \dots \dots \text{Model 3}$$

Where:

Y= Operational performance (Dependent variable)

X= Strategic investment procedures (Independent variable)

Z = Behavioral prejudice (Moderator variable)

XZ=Interaction term

ε= Error term

i = Unit of analysis

The findings indicated that the moderating effect of behavioral prejudice on the relationship between strategic investment procedures and operational performance is significant. The model 1 which took in only the independent variable, strategic investment procedures accounted only for 22.1% of the variation in operational performance ( $R^2=0.221$ ;  $p<0.000$ ) compared to the model 2 which introduces the moderator variable behavioral prejudices which accounts for 32.8% of variation in operational performance ( $R^2=0.328$ ;  $p<0.000$ ). Compared with the two models which only encompasses the control variable, predictor variable and the moderator variable, the addition of the interaction term in the full model 3 significantly increases the  $R^2$  to 39.6% (increase in  $R^2=6.8\%$ ;  $p<0.05$ ).

This means that 22.1% of the variance in dependent variable, operational performance was explained by the independent variable strategic investment procedures. When the moderator variable behavioral prejudice was introduced, R square value indicated that 32.8% of the variance in operational performance was explained by the independent variables strategic investment procedures and the moderator variable behavioral prejudices. Interaction term between behavioral prejudices and strategic investment decisions caused R Square to change further indicating that when moderating, 6.8% variance in operational performance was explained by behavioral prejudices, the moderator variable. This indicated that behavioral prejudices had a moderating effect on the relationship between strategic investment decisions and operational performance with the coefficients indicating a positive and significant relationship between the variables at  $p<0.005$ . These findings implied that there is a positive and significant moderating effect of behavioral prejudices on the relationship between strategic investment procedures and operational performance of real estate investment firms in Kenya.

The above results support studies by Brezezicka and Winsniewski (2014) which stated that speculative price bubbles in the real estate market are impossible if they are not accompanied by behavioral elements, according to Brezezicka and Winsniewski (2014) in a study of the price bubble in real estate. It was concluded that if the real estate market had no behavioral characteristics, there would be no bubble in the housing market's price. However, Allen et al. (2007) empirically tested dominant theories and assumptions in behavioral finance, using standard and poor's 500 index data. Their findings suggested that differences in psychological biases did not determine their investment preferences. Barber & Odean, (1999), Fama & French, (1992), Raafat et al., (2009) and Shefrin & Hersh, (2000) noted an apparent lack of consensus among financial scholars concerning the validity of behavioral finance theory. This lack of consensus suggests that behavioral finance as a concept is still open for debate.

**Conclusion:-**

Operational performance is an integral part of any organization as investors usually invest so as to earn profits making investment decisions have a direct impact on operational performance. However, investment decisions are often influenced by prejudice by managers and investors which lead to irrational decisions that in turn lead to poor outputs. Inaccurate financial information about current trends, profitable ventures, fiscal policies and government regulations also lead to bad investment decisions making. Investment managers should have accurate data and analysis and map out well their investment options in order to create portfolios that maximize shareholder's wealth.

**Recommendations:-**

The findings of the study recommend policy options for adoption and application by real estate investment firms and other organizations operating in Kenya since the environment within which organizations operate is riskier, uncertain, and complex. Before making any real estate investment choices, an investor should thoroughly map out his or her investing strategy. Investors should follow investing techniques set by market, organizational, or industry levels to pick and develop the most efficient portfolio. According to the study findings behavioral prejudice positively moderates the relationship between strategic investment procedures and operational performance since managers do not rely on accurate data when making decisions.

Firms' shareholders need to be aware of the various fiscal policies and how they affect returns of the investment portfolios. This information needs to be cascaded down to their managers to inform their decisions. Managers should also have continuous personal development programs to build their capacity, change their attitudes and keep them updated with emerging trends. Strategic managers need to have an intent or philosophy that drives advancement in investment decisions and great operational efficiency of investment portfolios.

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