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EFFECT OF MANAGERIAL REGRET AVERSION ON RANKING OF FINANCING DECISIONS BY FINANCIAL MANAGERS OF FIRMS LISTED IN NSE

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Abstract

Purpose: The purpose of this study was to determine the effect of regret aversion on ranking of financing decisions by financial managers of NSE listed firms.

Methodology: The study employed a positivism philosophy and a descriptive correlational design. A two tier sampling was applied where: a census at the firm level and purposive sampling at financial manager level resulting in a selection of the top 3 senior and middle financial managers from each firm. The target population was the top three financial managers in each of the firms listed in the NSE resulting in a target population of 192 financial managers from a population of 64 firms. A questionnaire was utilised to collect primary data from the target population. Descriptive statistics, Analysis of Variance (ANOVA) and multinomial logit regression were employed in data analysis.

Results: There was a statistically significant relationship between regret aversion and ranking of financing decisions. Based on the study findings, it was concluded that regret aversion affected financial decisions ranking as regret averse managers would chose internal financing over debt and equity. This is because a regret adverse manager seeks to reduce its firms' total risk by using low of external funding including debt.

Unique contribution to theory practice and policy: Financial managers are advised to consider referring to decision makers who have experience in money matters especially if the financial matter is complicated. To avoid being adversely affected by regret aversion, financial managers could pay attention on budgeting and long term financial planning.

Keywords: *Managerial regret aversion, ranking of financing decisions and financial managers.*

1.0 INTRODUCTION

1.1 Background of the Study

Behavioral Finance studies gained popularity and increasingly considered as essential in understanding the decision making process (Banerjee, 2011). Behavioural finance is hinged on the idea that not all decision makers act rationally, always (Joo & Durri, 2015). Investors ought to be aware of the different behavioural biases inherent within them and deliberately work towards maintaining a strategic distance from them, thus enhancing their efficiency. Some normal mistakes made by investors are offering too early while booking benefits, holding their stocks for too long while incurring losses, purchasing overrated stocks in light of market assessments and positive assessment by even those who do not matter (Parikh, 2011). What is key according to Parikh (2011) is to connect with the emotional indiscipline and effectively manage it.

There are two frameworks of the human mind that help explain why individuals settle for poor choices (National Research Council, 2000). The first is the quick thinking part of the mind that utilizes mental shortcuts, also known as heuristics, to decide (Kahneman & Klein, 2009). This framework works rapidly and consequently relies on assumptions and little thought. The second system, which is the better and more methodical one, is utilised to settle on well thought out choices and takes effortful mental activity (Stensson, 2014). Here, decisions are made after careful consideration of available information (Kahneman & Tversky, 1979). The study by Kahneman (2009) exposes how decisions based on emotions can lead to adverse consequences (Yu, 2016).

Behavioral finance is concerned with the cognitive psychological aspects of financial decision-making and explores the irrationality of investors in investment decision-making. Usually, the investor's behaviour deviates from making rational or logical decisions and leans towards being influenced by various behavioral biases. These biases influence the investor's rationality in investment decision-making. Behavioral finance investigates the mental aspect of basic decision making and clarifies the irrationality investors are subjected to in investment decisions (Baker & Nofsinger, 2010). Often, investors stray from balanced and sensible choices towards the preferences aligned to their behavioral inclinations. These inclinations impact the financial specialists' discernment of the financial venture (Kumar & Goyal, 2015).

The concept of behavioural finance is considered by numerous scholars as a new paradigm in the financial world (Olsen, 1998). Agrawal (2012) noted that the field of behavioral finance has developed in response to the increasing number of stock market anomalies (undervaluation or overvaluation) that could not be explained by traditional asset pricing models. Schinckus (2011) considers behavioral finance as thus a new approach that studies the financial reality by taking into account the psychological dimension of financing decisions. Kahneman and Tversky (1979) developed prospect theory and explained that the investor's decision-making is based on potential gains and losses rather than on final outcomes.

Proponents of behavioral finance such as Subrahmanyam (2007) argue that a "normative" theory based on maximization of rational utility cannot be construed as a superior alternative to behavioral approaches merely because it discusses how people should behave. In defense of behavioral finance theory Razek (2011) posited that the methodology of behavioral finance does not require that a theory be simple, contrary to the demands made upon it by traditional financial scholars. Fama and French (2002) however disagrees by stating that the standard scientific rule requires that market efficiency can only be replaced by a better scientific model of price

formation which potentially reject empirical findings. In this sense Li (2004) note that testing whether documented anomalies in finance can be explained by behavioral theory is very important. As the author contends, the success of behavioral model in explaining anomalies in finance in a few cases is not enough to conclude the behavioral theories are better models of price formation than traditional financial models.

Turning to the dynamics of managerial bias, there is evidence suggesting that managers tend to attribute good performance excessively to their own abilities rather than luck (Jackson, 2003). Bias in managerial self-attribution has been found in the contexts of repeated acquisitions (Billett & Qian, 2008) and in the issuance of management earnings forecasts after past successes (Hilary & Hsu, 2011).

The pivotal role of a securities exchange in a modern economy cannot be overemphasized. The NSE performs functions that promote growth and development in the Kenyan economy. It is for this reason that the respondents in this study were drawn from companies listed in the NSE.

1.2 Statement of the Problem

Managers may make errors when choosing and using financing vehicles, and in some cases this results in considerable losses (Aduda, 2012). Management errors can be evidenced by poor performance of listed and non-listed firms (Odean, 2012; Fairchild, 2007). For instance, management decisions were partly blamed for the huge loss of KES26 billion by Kenya Airways (Mwikya, 2013). Another example is Uchumi Supermarkets whose overly ambitious expansion plans led to its collapse and delisted in the year 2006 though later relisted in year 2011 (Munda, 2015). Hutchings Biemer was also delisted in the year 2008 due to managerial decisions that affected the firm's financial performance (Munda, 2015). Most recently, the local retail sector has been hard hit with a financial crisis with the top players in this sector namely Nakumatt and Uchumi chain of supermarkets not able to meet their working capital and long term financing requirements. Both these entities, alongside Kenya Airways have been positioning themselves to attract strategic investors to finance the business activities.

Behavioral economics, along with the related sub-field behavioral finance, studies the effects of psychological, social, cognitive, and emotional factors on the economic decisions of individuals and institutions and the consequences for market prices, returns, and resource allocation, although not always that narrowly, but also more generally, of the impact of different kinds of behavior, in different environments of varying experimental values (Samson, 2014). Using behavioural economics, we can comprehend how these errors arise, why they persist, and what can be done to ameliorate them. Financing decisions have a great impact on the value of a firm and the economy as a whole yet scholars world over have applied traditional finance models to explain the issues that influence the decision making process with less emphasis on behavioural aspects inherent in the decision makers' environment (Odean, 2012). It is on this basis that this study was conducted to investigate the effect of managerial regret aversion on ranking of financing decision.

1.3 Research Objective

The objective of the study was to determine the effect of managerial regret aversion on ranking of financing decisions by financial managers of NSE listed firms.

1.4 Research Hypothesis

The research hypothesis was managerial regret aversion does not have a significant relationship with ranking of financing decisions.

LITERATURE REVIEW

2.1 Theoretical Literature Review

2.1.1 Prospect Theory

This theory states that people's decisions are according to the probable value of gains and losses instead of the final results. Kahneman and Tversky (1979) criticized the expected utility theory and said that it is a descriptive model of making decisions under risk. They came up with another model called the prospect theory in which the value is assigned to gains and losses rather than to final assets and probabilities are replaced by decision weights.

Prospect theory is a developmental economic theory which outlines decisions between probabilistic alternatives that involve risk (Kahneman & Tversky, 1979). The theory bases decisions on perceived gains rather than losses. When a person is given two equal choices, one expressed in possible gains and the other in possible losses, he or she will choose the first one. This theory is also known as the loss aversion theory (Heukelom, 2009).

The prospect theory of Kahneman and Tversky (1979) along with Thaler's (2008) mental accounting framework creates the disposition effect. The important aspect of prospect theory is an S-shaped value function which is concave (risk averse) in the domain of gains and convex (risk loving) in the domain of losses. Both these points are rated relative to a reference point. Mental accounting gives a basis for the way decision makers set reference points for the statements that determine gains and losses (Thaler, 2008). The main foundation is that decision makers separate different types of gambles into various accounts and then use prospect theory to each account by disregarding possible interactions (Marchand, 2012). When the relevant accounts are gains in individual stocks, then the prospect theory and mental accounting together provides a disposition effect. According to Grinblatt and Han (2005) this is because prospect theory and mental accounting investors are generally risk averse over gambles for some stock and for the others locally risk loving. The difference between risk attitudes of these two distinct types of stocks is driven fully by whether the stock has generated a capital gain or a capital loss. Because of the difference in risk attitudes, investors are more likely to sell stocks that have become more valuable since purchase.

In comparison to the expected utility theory, prospect theory assumes that a person's utility is defined over their profits or losses in comparison with some reference point and not over the value of their final current and fixed assets. It also perceives that people's utility from gain is lower than their disutility from the same loss and that people are risk-averse over gains and risk-loving over losses (Camerer 2000). In addition to these loss aversion assumptions, prospect theory assumes that people tend to overweight low probabilities and underweight high probabilities (Barberis, Mukherjee & Wang, 2016).

Prospect theory describes how people frame and value a decision involving uncertainty and therefore they look at choices in terms of potential gains or losses in relation to a specific reference point, which is often the purchase price. This theory also outlines the way economic agents put a result or transaction in their mind and influence the utility they receive. Framing and economic theory has been used in a wide range of situations which don't rhyme with standard economic objectivity (Wang, Yang, Li, & Zhang, 2016).

Faulkner (2002) opined that the prospect theory adopts a consequentialist approach to choice, suggesting that in making financing decisions people are assumed to be concerned with the likely outcomes of their actions. A key operation in decision making according to prospect theory, the coding of outcomes into gains and losses, represents one of the most important characteristics of

the decision maker: that outcomes are perceived in terms of gains and losses relative to some reference point, which might be the status quo, or the framing of the problem; or the expectations or history of the decision maker.

Prospect theory has been utilized to try to explain some financing decisions. Ljungqvist and Wilhelm (2005) investigated whether prospect theory can explain the behavior of managers in the Initial Public Offering (IPO) and Search Engine Optimization (SEO) market. The prospect theory lends itself well to this as it argues that individuals do not necessarily, process information in a rational manner and that they tend to value profits and losses in different ways, therefore decisions are based on expected gains rather than expected losses (Kahneman and Tversky, 1979).

In applying this to the initial public offering and first CEO of firms, Ljungqvist and Wilhelm (2005) focused on all firms completing an initial public offering in the United States between January 1993 and December 2000, and used logit and probit models for the making decision. They found that initial public offering firms were least likely to switch underwriters when the underwriters' performance fulfilled them. They also found that underwriters extracted more fees for subsequent transactions involving satisfied decision-makers. Prospect theory explains how individuals make decisions based on perceived gains instead of perceived losses, regret aversion (Kahneman and Tversky, 1979).

This theory is relevant to the study since it informs the regret aversion variable. The theory is applied in this study to explain how financial managers' behaviours affect the way they make financial decisions in terms of perceived gains and perceived losses. A manager who is regret averse will make financial decisions based on how much gains would result in and not how much loss would result.

2.2 Empirical Literature Review

Reb (2008) conducted a study on Regret aversion and decision process quality: Effects of regret salience on decision process carefulness. The study conducted five experiments to examine the effect of making regret salient on decision process quality. The study predicted that increased regret aversion would lead to more careful decision processing. The results suggest that regret aversion can lead to better performance, in the sense of more careful, decision making. Implications and future directions are presented.

A study on the effect of gamblers fallacy on investors conducted by Wera (2006) showed that most investors at NSE will gamble with hope of breaking even by holding the stock for a month which indicates that all investors are risk averse.

Connolly and Reb (2005) suggested that self-blame regret can be either *option regret*, the outcome of selecting an unjustifiable option, or *decision process regret*, the result of involving in an unjustifiable decision process. The latter could, refer to a decision maker not information before choosing which employment offer to *accept*.

Janis and Mann (1977) believe that anticipatory regret is mostly functional, leading to vigilance in decision making. Thus, individuals feeling anticipatory regret will be more motivated to search for additional options or information concerning existing options and perform a more careful comparison of their options. However, in extreme cases, anticipatory regret can lead to dysfunctional procrastination and decision avoidance. Janis and Mann further argue that several circumstances evoke anticipatory regret, such as the salience of relative loss, imminence of loss, and social commitment to a certain decision.

Findings in a study by Li (2006) reveal that reproducing causes selectively erased loss aversion in men and in contrast the self-protective causes led both men and women to become more loss-averse. Overall, loss aversion come into sight to be sensitive for evolutionarily-important reasons, telling that it may be a domain-specific bias operating according to an adaptive logic of recurring threats and opportunities in different evolutionary domains. Research shows that the classic bias of loss aversion make worse, erased, and even reversed when the decision context is the evolutionarily-important domain of mate-seeking (Li, 2006).

Babajide and Adetiloye (2012) conducted an empirical study about investors' behavioral biases on the Nigerian security market. The study found strong evidence that loss aversion bias exist among Nigerian investors. A weak negative relation between the bias and stock market performance is also established. Mbaluka, Muthama and Kalunda (2012) examined the behavioral factors namely framing and loss aversion effects on investors' decision-making process at the Nairobi Securities Exchange, Kenya. The study found out that investors are frame dependent and loss-averse.

In a study by Gächter, Johnson and Herrmann (2007), the large extent of loss aversion revealed by the loss adverse choices, the average loss premium is positive for most choice situations. Female subjects exhibit both a more frequent occurrence and a larger extent of loss aversion. This study finds a systematic relationship between loss attitude and assessment probability (Schmidt & Sevak, 2006).

The results of another study reveal that the pattern predicted by the loss aversion assertion emerges only under very specific conditions. Losses appear to loom larger than gains in some environments but not in others. These and similar results can be captured with the assertion that the exact effect of losses is not a result of a stable value function rather than the effect of losses might depend on the similarity of the current decision environment to past experiences (Ert & Erev, 2010).

A consequence of risk aversion is that managers may spend excessive amount of resources on activities which reduce the riskiness of firm returns or pass up valuable but high risk investment opportunities thereby causing shareholders opportunity losses (Guay & Verrecchia, 2006). This is the risk-related agency problem as viewed by traditional agency theory.

3.0 RESEARCH METHODOLOGY

The study employed a positivism philosophy and a descriptive correlational design drawing its population from senior and middle level financial managers from all the 64 firms listed in the NSE as at 31st of December 2015. A two tier sampling was applied where; a census at the firm level and purposive sampling at financial manager level resulting with a selection of the top 3 senior and middle financial managers from each firm. The target population was the top three financial managers in each of the firms listed in the NSE resulting in a target population of 192 financial managers from a population of 64 firms. A questionnaire was utilised to collect primary data from the target population. Descriptive statistics, Analysis of Variance (ANOVA) and multinomial logit regression were employed in data analysis.

4.0 RESULTS

4.1 General Information

4.1.1 Response Rate

The number of questionnaires administered was 192 out of which a total of 158 were properly filled and returned. A small number of the respondents (6) returned the questionnaires half-filled

while others declined to return despite constant and aggressive follow up. The response rate result is shown in Table 1.

Table 1: Response Rate

Response	Frequency	Percent
Returned	158	82.29%
Unreturned/rejected	34	17.71%
Total	192	100%

The response rate of 82.29% which is deemed quite adequate according to Mugenda and Mugenda (2003) who states that a response rate of above 50% is adequate for a descriptive study, demonstrates the effectiveness of strategies used to elicit responses.

4.1.2 Classification of Respondents by Management Level

The respondents were asked to indicate the management level for their current position. Results are shown in figure 1.

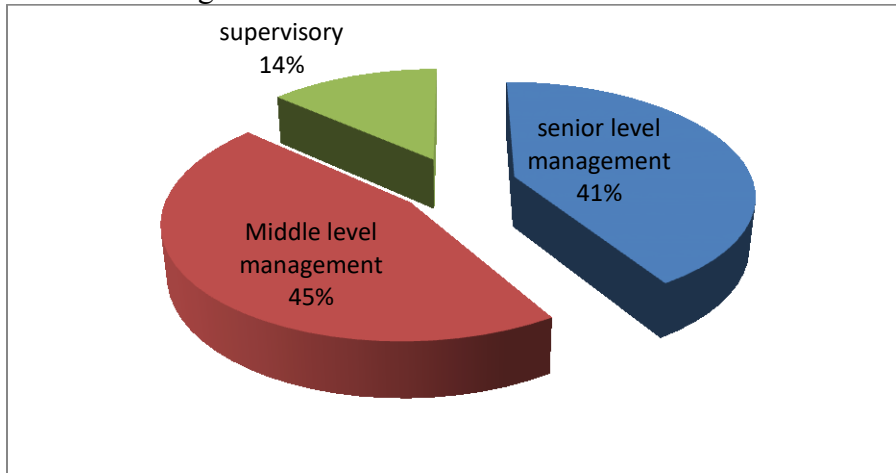


Figure 1: Management Level

Results in figure 1 indicate that 45% of respondents were middle level managers followed by 41% who were in senior level management while 14% were at supervisory level of management. This implies that majority of the respondents were top notch managers.

4.1.3 Classification of Respondents by Gender

Respondent were asked to indicate their gender. Figure 2 shows the results.

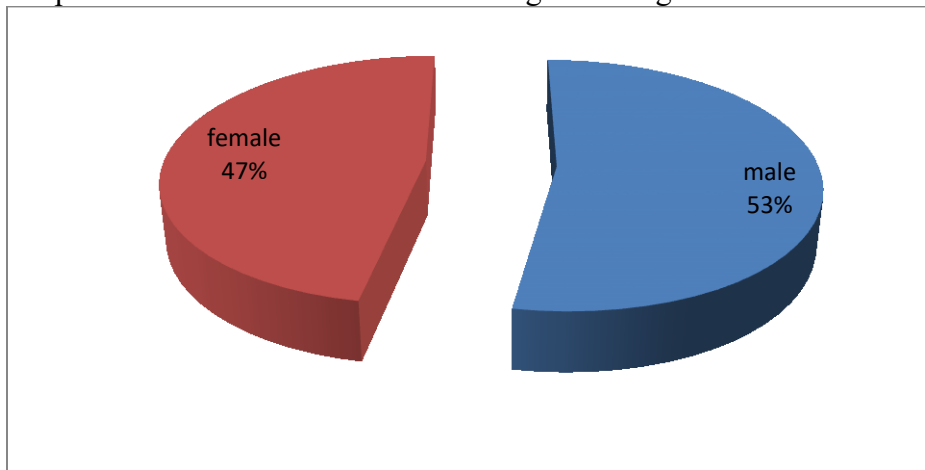


Figure 2: Classification of Respondents by Gender

Results in figure 2 show that 53% of the respondents were male whilst 47% were females.

4.1.4 Classification of Respondents by Age

Respondents were also asked to indicate their age bracket. Figure 3 depicts the results.

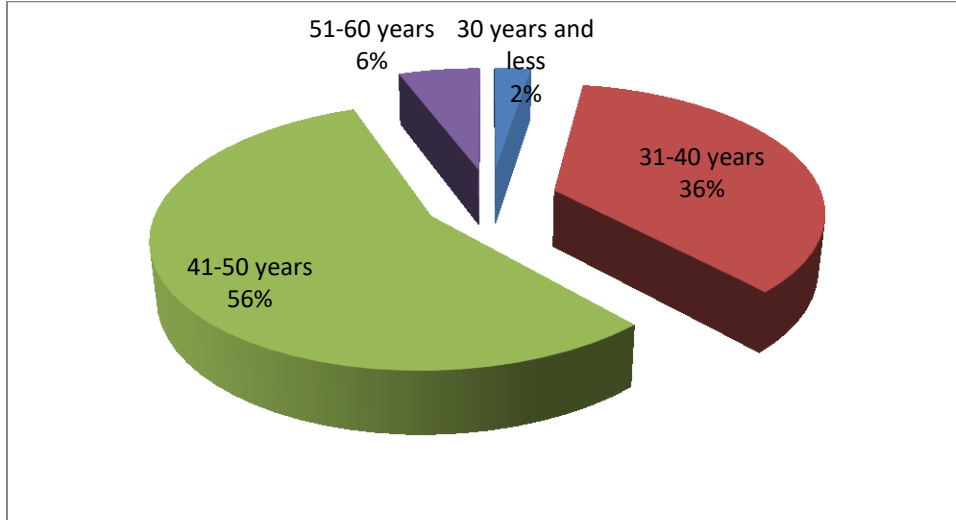


Figure 3: Classification of Respondents by Age

Results revealed that 56% of the respondents, were aged between 41-50 years, 36% were between 31-40 years, and 6 % were aged between 51-60 years while only 2% were aged 30 years and less.

4.1.5 Classification of Respondents by Level of Education

Respondents were further asked to indicate their highest levels of education. Results are shown in figure 4

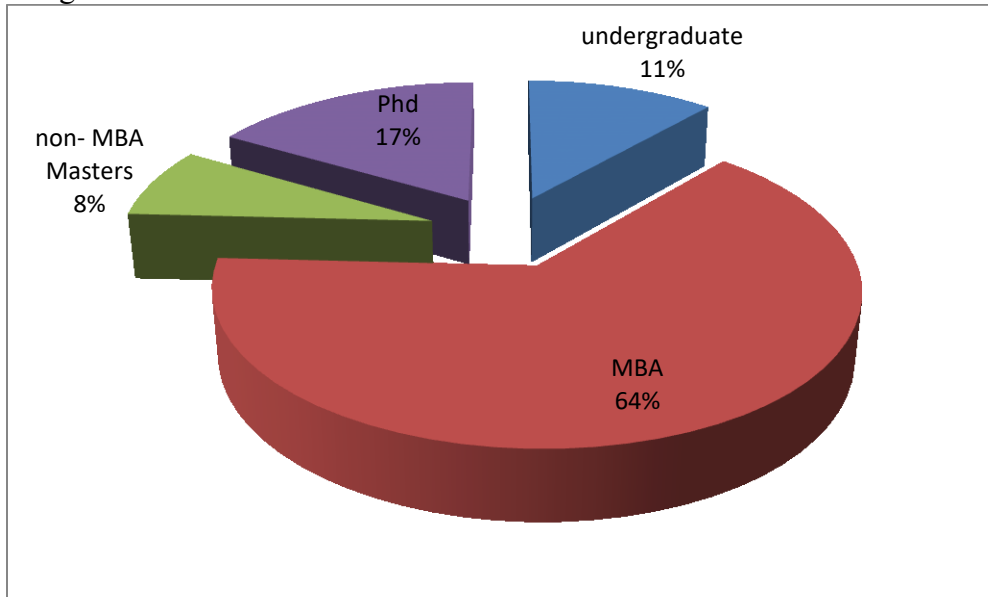


Figure 4: Classification of Respondents by Level of Education

Results in figure 4 indicate that 64% of the respondents had their highest level of education as MBA, 17% had PhD as their highest level of education, 11% were undergraduates while 8% had non-MBA Masters degrees.

4.1.6 Classification by Duration in the Role of Making Financing Decisions

Respondents were asked to indicate for how long they had been in their current role of financing decision making. Figure 5 show the results.

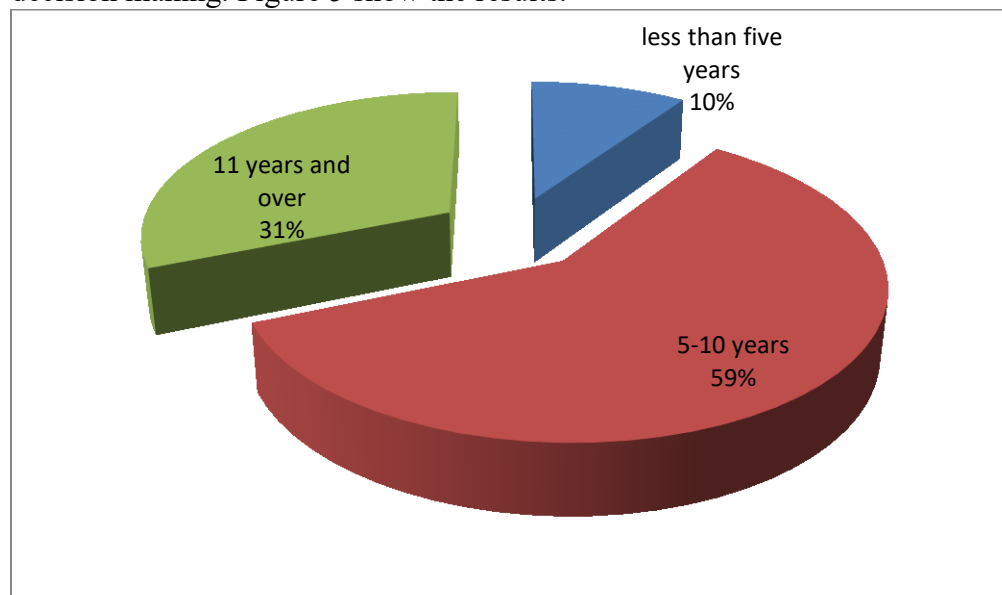


Figure 5: Duration in the Current Role of Making Financing Decisions

Results in figure 5 show that 59% of the respondents had been in the current role of making financial decision for 5-10 years, 31% had been in the current role for 11 years and above, while 10% had been in the current role for less than five years.

4.1.7 Extent Involved in Decision Making

The respondents were asked to indicate the extent to which they were involved in making the following decisions. Results are shown in Table 2

Table 2: Extent Involved in Decision Making

Decisions	not at all	less extent	moderate extent	large extent	very large extent
Working capital management	3.20%	6.40%	10.20%	70.70%	9.60%
Capital expenditure (CAPEX)	3.20%	7.60%	10.20%	57.30%	21.70%
Operating expenditure (OPEX)	2.50%	5.10%	12.70%	31.20%	48.40%
Budgeting	3.80%	1.30%	8.30%	36.90%	49.70%

Results in table 2 indicate that 70.70% of the respondents who were indicated that they are involved in decision making on working capital management to a large extent. Results also revealed that majority of the respondents who were 57.30% were involved in decision making on capital expenditure (CAPEX) to a large extent. Results further indicated that 48.40% of the respondents were involved in decision making on operating expenditure (OPEX) to a very large extent. Further, results revealed that 49.70% of the respondents were involved in decision making on budgeting to a very large extent. The results imply that most of the respondents were involved in financing decision making further implying that the managers combine their competences and capabilities in making the financial decisions.

4.2 Effect of Regret Aversion on Ranking of Financing Decisions by Managers of Firms Listed in NSE

The objective of the study was to find out the effect of regret aversion on ranking of financing decisions by financial managers of firms listed in the NSE.

4.2.1 Descriptive Statistics

Respondents were asked to indicate their level of agreement on regret aversion. Table 2 shows the results. Results revealed that 60.30% of the respondents disagreed with the statement that “I fail to take action due to fear of bad outcomes”. Results also revealed that 56.40% of the respondents disagreed with the statement that “I hold poorly performing shares due to fear that the firm will lose when its prices increases in the future”. The results also revealed that 45.60% of the respondents agreed with statement that “I act wisely while making financing decisions due to the fear of unknown”.

Further, the results found out that 51.20% of the respondents agreed with the statement that “past losses prevent the respondent from deviating from a highly repeated and consistent course when favorable opportunities arise”. Results further revealed that 48.00% of the respondents agreed with the statement that “I frequently buy short-term bonds for fear of stock-market volatility”. The results further revealed that 64.10% agreed with the statement that “the past loses prevent me from breaking bond-buying habit to capitalize on the purchase of high yield stocks”. Using a five point scale Likert mean, the overall mean of the responses was 3.10 which indicates that majority of the respondents agreed to the statement of the questionnaire. Additionally, the standard deviation of 0.99 indicates that the responses were varied.

Table 2: Managerial Regret Aversion

Statements	strongly disagree	disagree	moderate agree	strongly agree	Mean	Std. Deviation	
I fail to take action due to fear of bad outcomes	28.20%	32.10%	8.30%	29.50%	1.90%	2.45	1.235
I hold poorly performing shares due to fear that the firm will lose when its prices increases in the future	18.60%	37.80%	18.60%	24.40%	0.60%	2.51	1.075
I act wisely while making financing decisions due to the fear of unknown	0.60%	10.90%	42.90%	35.30%	10.30%	3.44	0.844
The past losses prevent me from deviating from a highly repeated and consistent course when favorable opportunities arise.	1.90%	15.40%	31.40%	47.40%	3.80%	3.36	0.857
I frequently buy short-term bonds for fear of stock-market volatility	4.50%	15.40%	32.10%	44.20%	3.80%	3.28	0.927
The past loses prevent me from breaking bond-buying habit to capitalize on the purchase of high yield stocks	3.20%	14.10%	18.60%	51.30%	12.80%	3.56	0.991

Average 3.10 0.99

4.2.2 ANOVA Results on Regret Aversion and on Ranking of Financing Decisions by Managers of Firms Listed in NSE

A preliminary test on the influence of regret aversion on ranking of financing decisions by financial managers of firms listed in the NSE was conducted using ANOVA. The financing preference was grouped into three categories which were internal financing, debt financing and equity financing. Results in Table 3 show that there is a significant relationship between regret aversion and financing preference. This is supported by an F statistic of 11.806 which was larger than the tabulated F statistic. A p-value of 0.000 which was less than the critical p value of 0.05 supported the same findings.

Table 3: ANOVA Results on Regret Aversion and on Ranking of Financing Decisions by Managers of Firms Listed in NSE

		Sum of Squares	df	Mean Square	F	Sig.
Mean Regretted	Between Groups	8.237	2	4.118	11.806	0.000
	Within Groups	53.723	154	0.349		
	Total	61.96	156			

4.2.3 Post Hoc Analysis

Post hoc analysis was conducted in order to have an in depth analysis of the ANOVA results. Results in table 4 revealed that there was a significant difference in mean regret aversion between internal and debt financing (0.2796, p value of 0.019). The results imply that finance managers who chose internal financing were more likely to be regret averse than those who chose debt financing. Results also show that there was a significant difference in mean regret aversion between internal and equity financing (0.5388, p value of 0.000). The results imply that the finance managers who chose internal financing were more regret averse than those who chose equity financing. Further, results show that there was a significant difference in mean regret aversion between debt and equity financing (0.2591, p value of 0.049). The results imply that the finance managers who chose debt financing were more regret averse than those who chose equity financing.

Table 4: Post Hoc Analysis Results

Dependent Variable	(I) Ranking of Financing decisions	(J) Ranking of Financing decisions	Mean Difference (I-J)	Std. Error	Sig.
Mean Regretted	Internal Financing	Debt Financing	.2796374*	0.1176079	0.019
		Equity Financing	.5388081*	0.1121595	0.000
	Debt Financing	Internal Financing	-.2796374*	0.1176079	0.019
		Equity Financing	.2591707*	0.1308002	0.049
	Equity Financing	Internal Financing	-.5388081*	0.1121595	0.000
		Debt Financing	-.2591707*	0.1308002	0.049

* The mean difference is significant at the 0.05 level.

4.2.4 Means plot

A means plot was used to present the linear relationship between regret aversion and ranking of financing decisions by financial managers of firms listed in the NSE. The mean regret aversion of those who chose internal financing was 3.3191, those who chose debt was 3.0395 and for those who chose equity financing was 2.7803. This implies that those who chose internal were more regret averse followed by those who chose debt and finally those who chose equity financing.

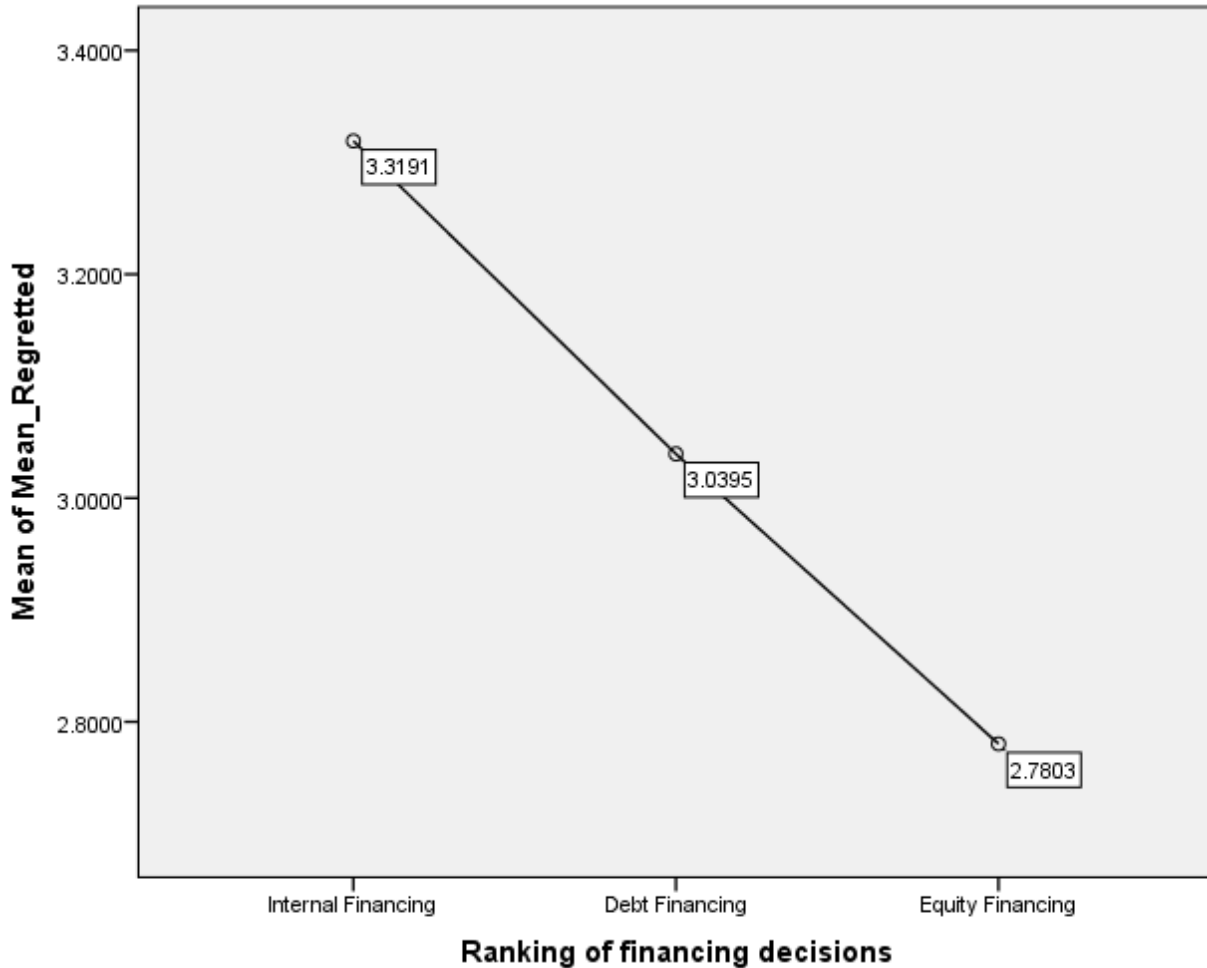


Figure 6: Means Plot for Regret Aversion and Ranking of Financing Decisions

4.5.5 Multinomial logit Regression Analysis for Regret Aversion and on Ranking of Financing Decisions by Managers of Firms Listed in NSE

Multinomial logit regression was used to assess the log likelihood that finance manager chose a particular type of financing over the base choice (internal financing) given a unit increase in the level of regret aversion. The results are presented in table 5.

Table 5: Multinomial logit Regression Analysis for Regret Aversion and on Ranking of Financing Decisions by Managers of Firms Listed in NSE

Iteration, Likelihood 1	-165.28636			
Iteration, Likelihood 2	-154.55974			
Iteration, Likelihood 3	-154.33829			
Iteration, Likelihood 4	-154.33818			
Iteration, Likelihood 5	-154.33818			
Multinomial, logistic regression	Number of obs	157		
	LR chi2(2)	21.9		
	Prob> chi2	0.000		
Log, likelihood -154.338	Pseudo R2	0.0662		

Ranking of Financing decisions	Coef.	Std. Err	z	P> z
Internal Financing	(base outcome			
Debt Financing	-0.7638276	0.335341	-2.28	0.023
Constant	1.749858	1.072339	1.63	0.103
Equity Financing	-1.509878	0.352069	-4.29	0.000
Constant	4.064584	1.067618	3.81	0.000

Results in table 5 indicate that a unitary increase in regret aversion would result in an increase in the log odds of choosing debt capital over internal capital by -0.76 units. Further, a unitary increase in regret aversion would result in an increase in the log odds of choosing equity capital over internal capital by -1.51 units.

Thus, the model is:

$$\log \frac{\Pr(Y=Debt\ capital)}{\Pr(Y=internal\ capital)} = 1.749 + -0.76\ Regret\ aversions$$

$$\log \frac{\Pr(Y=Equity\ capital)}{\Pr(Y=internal\ capital)} = 4.065 + -1.509\ Regret\ aversions$$

4.2.6 Hypothesis Testing

Results above show that the calculated log likelihood-statistic (LR chi2 (2) of 21.90 was more than the tabulated/critical chisquare statistic. The findings were further supported by a p-value of 0.000. This indicated that the alternative hypothesis was rejected hence managerial regret aversion had a significant relationship with ranking of financing decisions.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

There was a statistically significant relationship between regret aversion and ranking of financing decisions. Based on the study findings, it was concluded that regret aversion affected financial

decisions ranking as regret averse managers would chose internal financing over debt and equity. This is because a regret adverse manager seeks to reduce its firms' total risk by using low of external funding including debt.

5.2 Recommendations

Financial managers are advised to consider referring to decision makers who have experience in money matters especially if the financial matter is complicated. To avoid being adversely affected by regret aversion, financial managers could pay attention to budgeting and long term financial planning.

REFERENCES

- Aduda, J. (2012). The Behaviour and Financial Performance of Individual Investors in The Trading Shares of Companies Listed At the Nairobi Stock Exchange, Kenya. *Journal of Finance and Investment Analysis*, 1 (3), 33-60.
- Agrawal, K. (2012). A Conceptual Framework of Behavioural Biases in Finance. *The IUP Journal of Behavioural Finance*, IX (1), 7-18.
- Baker, H. K., & Nofsinger, J. R. (Eds.). (2010). Behavioral finance: investors, corporations, and markets (Vol. 6). John Wiley & Sons.
- Babajide, A. A., & Adetiloye, K. A. (2012). Investors' behavioral biases and the security market: An empirical study of the Nigerian security market. *Accounting and Finance Research*, 1(1), 219-229.
- Banerjee, A. (2011). Application of Behavioural Finance in Investment Decisions: An Overview. *The Management Accountant*, 46 (10), 20-35.
- Barberis, N., Mukherjee, A., & Wang, B. (2016). *Prospect theory and stock returns: an empirical test*. Review of Financial Studies, hhw049. Oxford University Press.
- Billett, M. T., & Qian, Y. (2008). Are overconfident CEOs born or made? Evidence of self-attribution bias from frequent acquirers. *Management Science*, 54(6), 1037-1051.
- Camerer, C. F. (2000). Prospect theory in the wild: Evidence from the field. *Journal of Economic Studies*, 110(110), 2013-2043.
- Connolly, T., & Reb, J. (2005). Regret in cancer-related decisions. *Health Psychology*, 24(13), 29- 34.
- Ert, E., and Erev, I. (2010). *On the descriptive value of loss aversion in decisions under risk* (No. 10-056). Harvard Business School.
- Fairchild, R. (2007). Managerial overconfidence, agency problems, financing decisions and firm performance. *University of Bath School of Management Working Paper Series*. (Unpublished).
- Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *Review of financial studies*, 15(1), 1-33.
- Faulkner, P. (2002). "The human agent in behavioral finance: A Searlean perspective." *Journal of Economic Methodology*, 9(1), 31-52.
- Gächter, S., Johnson, E. J., & Herrmann, A. (2007). Individual-level loss aversion in riskless and risky choices.
- Grinblatt, M., & Han, B. (2005). Prospect theory, mental accounting, and momentum. *Journal of financial economics*, 78(2), 311-339.

- Guay, W., and Verrecchia, R. (2006). Discussion of an economic framework for conservative accounting and Bushman and Piotroski (2006). *Journal of Accounting and Economics*, 42(1), 149-165.
- Heukelom, F. (2009). *Kahnemann and Tversky and the making of behavioral economics* (No. 455). Rozenberg Publishers.
- Hilary, G., & Hsu, C. (2011). Endogenous overconfidence in managerial forecasts. *Journal of Accounting and Economics*, 51(3), 300-313.
- Jackson, A. (2003). The aggregate behaviour of individual investors.
- Janis, I. L., and Mann, L. (1977). *Decision making: A psychological analysis of conflict, choice, and commitment*. free press.
- Joo, B. A., & Durri, K. (2015). Comprehensive Review of Literature on Behavioural Finance. *Indian Journal of Commerce and Management Studies*, 6(2), 11.
- Kahneman, D., & Klein, G. (2009). Conditions for intuitive expertise: a failure to disagree. *American psychologist*, 64(6), 515.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 6(7), 263-291.
- Kumar, S., & Goyal, N. (2015). Behavioural biases in investment decision making—a systematic literature review. *Qualitative Research in financial markets*, 7(1), 88-108.
- Ljungqvist, A. W.J. and Wilhelm. JR, (2005). Does Prospect Theory Explain IPO Market Behaviour? *The Journal of Finance*, 60(4), 1759-1790.
- Marchand, M. (2012). *Behavioral biases in financial decision making*. (Unpublished).
- Mbaluka, P., Muthama, C., & Kalunda, E. (2012). Prospect theory: Test of framing and loss aversion effects on investors' decision-making process at Nairobi Securities Exchange, Kenya. *Research Journal of Finance & Accounting*, 3(9), 31-40.
- Munda C. (2015). *CMA to ease delisting at securities exchange*. Unpublished article.
- Mwikya, N. K. (2013). *Relational Factors Influencing On-time Service Delivery At Kenya Airways* (Doctoral dissertation, University of Nairobi).
- National Research Council. (2000). *How people learn: Brain, mind, experience, and school: Expanded edition*. National Academies Press.
- Odean (2012). *Modern Financial Economics*. (University of California, Berkeley – Haas).
- Olsen, R. A. (1998). Behavioral finance and its implications for stock-price volatility. *Financial analysts journal*, 54(2), 10-18.
- Parikh .S. (2011). *Fundamentals of Corporate Finance*, 9th Edition, McGraw-Hill
- Razek, Y. H. A. (2011). An Overview of Behavioral Finance and Revisiting the Behavioral Life Cycle Hypothesis. *IUP Journal of Behavioral Finance*, 8(3), 7.
- Reb, J. (2008). Regret aversion and decision process quality: Effects of regret salience on decision process carefulness. *Organizational Behavior and Human Decision Processes*, 105(2), 169-182.
- Samson, A. (2014). An Introduction to Behavioral Economics. *The Behavioral Economics Guide 2014*.
- Schinckus, C. (2011). Archeology of Behavioral finance. *IUP Journal of Behavioral Finance*, 8(2), 7.
- Schmidt, L., and Sevak, P. (2006). Gender, marriage, and asset accumulation in the United States. *Feminist Economics*, 12(1-2), 139-166.

- Stensson, P. (2014). The Quest for Edge Awareness, Lessons not yet learned: PhD Thesis on practical and situated usefulness of advanced technological systems among inescapable uncertainties and competing interests in a world of dynamic changes (Doctoral dissertation, Institutionen för informatik och media).
- Thaler, R. H. (2008). Mental accounting matters. *Journal of behaviour decision making*, 12(256) 183-205
- Wang, X., Yang, F., Li, D., & Zhang, F. (2016). Group Decision-Making Method for Dynamic Cloud Model Based on Cumulative Prospect Theory. *International Journal of Grid and Distributed Computing*, 9(10), 283-290.
- Wera A. O., (2006). "A survey of the influence of Behavioural Factors on Investor Activities at the Nairobi Stock Exchange". *Unpublished MBA research proposal*, University of Nairobi. (Unpublished).