Overconfidence bias, Financial Literacy and Investment Decisions; moderation approach; a reflection from Small and Micro Enterprises in Nairobi County, Kenya

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Abstract

This aimed aimed at determining moderating effect of financial literacy on the relationship between overconfidence bias and investment decisions among Small and Micro Enterprises. The study was anchored on competency theory. The study employed explanatory research design and positivist paradigm. The target population was 102,821 firm owners. A sample of 383 respondents was selected using stratified random sampling technique. The collected data was analysed using descriptive and inferential statistics. Findings from hierarchical linear regression revealed that financial literacy moderates the relationship between overconfidence and investment decisions (β = .42 >0.05, ΔR^2 = .07). The study recommends that firms should improve on financial literacy which improves the relationship between behavioural factors and investment. There existed a very strong relationship between the two variables as a result of financial literacy. This would enhance better investment decision improving financial performance of the SMEs.

Keywords: Financial Literacy, Overconfidence, Investment Decisions, Small and Micro Enterprises

INTRODUCTION

Investment decision has been attributed to development of giant multinational companies that have changed entrepreneurial space. This has enhanced companies like Virgin empire, Alibaba, Microsoft and other companies worldwide based on entrepreneurial investment decision that has contributed enormously to growth of such companies (Piercy, 2016). Investment decision refers to the determination made by management on how, when, where and how much capital is to be spent on available opportunities including determining the costs and returns for each option (Asetto, 2014). The major factors to be considered in the investment decision process include; availability of funds, the initial cash outlay or cost of the investment, and the benefit or cash inflow expected to be generated. An investment decision can be under risk, uncertain and certain; therefore, results can be favorable or unfavorable to the organization. It is important to make right decisions for the organization (Wamae, 2013). Individual investor behavior is motivated by a variety of psychological heuristics and biases. One of behavioral factors includes overconfidence bias that contribute to decision making in investment. Behavioral factors arise as a result of psychological pressure that affect investors' capability of decision making. This pressure is termed by behavioral finance as behavioral factor which cause biasness in decision making (Ojwang, 2015). Investors make investment decisions based on heuristics; they make decision based on price as a results they become overconfident in their judgments. Overconfident investors are likely to overtrade as a result of the belief that they possess better knowledge than others. Investors' overconfidence due to ignorance, passiveness, and lack of understanding of the performance of the investment

company might cause them to underestimate the history against the risks, resulting in a portfolio that cannot expect a bad performance. Jannah and Ady (2017), in a research conducted on young investors in Indonesia showed that overconfidence affected investment decision making. The overconfidence factors that are related to self-attribution bias is the tendency of an individual to direct their success to their own talent and ability while blaming 'bad luck' for their failure, making themselves overestimate their talent.

Overconfidence perks up perseverance and will power psychological and peril tolerance hence promoting professional performance. It is also noted that overconfidence can enhance others' perception of one's abilities, which may help to achieve faster promotion and greater investment duration (Oberlechner and Osier, 2004). Overconfidence points out to a person's faith in their cognition, intuition and decision making. It is part of behavioral factors that affect personal judgement or intuitive ability in decision making (Hassan, Khalid & Habib, 2014). According to Chernoff (2010) argument, many people overvalue what they are not supposed to and undervalue what therefore affecting their ability of making investment information. Overconfidence people misinterpret their own knowledge and do not heed to others' opinion, hence affecting or leading to excessive trading and lower returns. Many scholars have found a significant relationship between overconfidence and investment decision. Overconfidence is mitigated through literacy, awareness and experience so as to suppress the behavioral factor. However, the interaction between overconfidence biases, financial literacy and performance of SMES has not been empirically tested. Financial literacy involves awareness, knowledge and experience in handling investment decision in finance. It provides understanding of money and finance products that individuals utilize when making financial choices in order to make formal investment decisions (Cude, 2010). Financial literacy enables investors to conduct rational decision, minimizing failure in organization and hence increasing performance. Successful investment decision is highly depended on the level of individual's financial literacy. Hence financial literacy tries to suppress overconfidence, anchoring, prospect and herding effect by providing an alternative decision making process that is rational. This financial literacy avoids high risk and poor investment decision. It is then necessary to investigate the effect of financial literacy on the relationship between behavioral factors and investment decision.

In Kenya, SMEs play a major role in the macro economy, which is the main source of employment, contributing to more than 55% of all jobs and 22% of the country's Gross Domestic Product (GDP). Despite the significance of this sector in Kenya, past statistics indicate that three out of five businesses fail within the first few months of operation (Kenya National Bureau of Statistics, 2007). Many countries are relating the failure to wrong investment decisions that are root cause of SMEs not achieving their objectives; this can be controlled by behavioural factors and financial literacy. Previous Literature indicates that behavioral finance factors on investment decision does not ascertain the moderating effect of financial literacy (Raveendra et al, 2018). There is need to introduce financial literacy as it suppresses behavioral factors. Financial literacy provides an individual with knowledge hence increase the scope of making rational investment decisions. Given the significant role played by SMEs in Kenya, it is important to understand if overconfidence biases influence investment decision as well as ascertain the effect of financial literacy. This study therefore, sought to establish the moderating effect of financial literacy on relationship between overconfidence bias and investment decisions among small and micro enterprises in Nairobi County, Kenya.

Theoretical Framework

The study adopted competency theory by Prahalad and Mamel (1990), that predicts that financial managers with a high level of information literacy skills are more likely to question their ability to make financial decision, while financial managers with a low level of skills are more likely to overestimate their investment decisions. Managers are more willing to make decisions on their own judgments when they feel skillful or knowledgeable. Finance managers who feel competent make investment decisions wisely. This theory links the level of one's competence to ranking of investment decisions. According to Kawshala (2017), Competence theory only explains the need of financial literacy to attain competitive advantage but does not explain about the behavioral factors in investment decision making process. As Kallay (2012) argued, competence is considered as a crucial resource in a business. It enables the firm to exploit all portential capabilities, resources and to expand production. Finacial literacy is then crucial since it has capability to remove behavoural factors which interfere with decision making but allow knowledge to bring rationality. Behavioural factors bring bad decision based on competency theory deployed in financial literacy but better investment can be made by SMEs. Kallay (2012) alluded that SMEs which barely added knowledge at a particular period may seem to be more suprior than there counterpart. Financial literacy can then separate the firm or individual from another, based on its ability to make better decisions expecially at corporate level.

Empirical Review

A research conducted by Acuto (2013) concentrated on how men were more risk tolerant as compared to ladies. It also investigated why men would invest more than women. The research used a controlled group with four experiments. It was found that men with induced overconfidence were more risk tolerant and invested more often than those who are not. Priming identity and overconfidence positively influenced investments decisions. Overconfidence gave men a chance to be risk tolerant than women performing better in investments.

Similarly, Hassan, Khalid & Habib (2014) investigated overconfidence and loss aversion in investment decisions. The study was done in Pakistan focusing on the effect of gender and age. Questionnaires were utilized as primary tool of data collection which was administered to a sample of 391 respondents. The research adopted correlation analysis; OLS and Chi-square analysis were utilized to come up with findings. Results indicated risk tolerance people reflected overconfidence as the visible trait. Though the data were limited to geographical and time constrains, men and older investors were considered to be overconfident. It was also found that women and older investors were more loss averse; hence, with more of the mature age, most investors become more experienced and generally most men invest more than their counterpart. Further, Javed, Bagh, and Razzaq, (2017) investigated not only the overconfidence but also herding effects, availability biasness and representativeness behaviours in determining perceived investment performance using empirical data obtained from Pakistan Stock Exchange (PSX). Five Likert scale questionnaires from previous study based on identical setting as PSX were analysed using regression analysis. The study used qualitative cross-sectional research design. The behaviour determinants; herding effects, representativeness, availability bias and overconfidence had positive significant effect on the perceived investment performance.

Also, Dessi and Zhao (2014) did a working paper on over confidence, shame and investments. In the investigation based on other empirical literature, share affect

mainly the Japanese cultural setup than North Americans. The research came up with a viable model that legitimizes these factors and inspects its consequence to the economy of these nations. The paper further reviewed the difference in the overconfidence and behaviours of the two countries based on difference in cultural believes. According to the findings, North Americans have equilibrium with overconfidence and low sensitivity to shame. Japanese on the other hand have equilibrium with high sensitivity to shame and no overconfidence. This difference in culture and social setup has shown in the emerging model that overconfidence and less tolerance to shame mechanisms induce investment decision and efficiency. The cost associated in mechanism in equilibrium indicated reliance on overconfidence which indicates insensitiveness to invest on self-improvement which reduces personal benefit as well as investing in new projects while reliance on shame as benefit mechanism showed over investment in the equilibrium.

Based on the above studies, there are mixed findings on the association between overconfidence bias and investment decisions. In addition, these findings are majorly related to corporate and none if any has been done in small and medium enterprises in emerging economies like Kenya. Hence, this study hypothesized that;
$H_{1:}$ overconfidence negatively affects investment decisions.

Many researchers across the globe have studied the level of financial literacy. For instance, LAl-Tamimi and Kalli (2009) assessed the financial literacy of the UAE individual investors who invest in the financial markets of UAE. They found that financial literacy of UAE investors is much less from what is actually needed. Their results also suggest that there exists a significant relationship between financial literacy and investment decisions.

In another study, Amisi (2012) investigated the effect of financial literacy on investment decision making by pension fund managers in Kenya. The study was based on a sample of 16 fund managers. The study revealed financial literacy and investment decisions have a significant relationship. The study concluded that financial literacy positively influences investment decision making.

A scholar, Tyrimai (2013), in conjunction with Bank of Lithuania, reviewed the financial behavior of Lithuania households as defined by the borrowing and saving habits of individuals in the households and reasons for doing the same. A total of 1011 households were surveyed. It was found that saving and borrowing financial behavior had significant influence on the stability of the financial systems of Lithuania. Majority of the households engaged in saving due to the fear of unforeseen factors like to protect them against reduced income or emergency expense as evidence by the choice of non-risky saving and investment instrument. Financial behavior as demonstrated by households sampled explains need to address issue of financial literacy since majority of the respondent depend on past personal experience or experience from friends.

Likewise, Bhushan (2014) examined the connection between financial literacy and investment behavior of the individuals who receive monthly pay from both the government and non-government jobs in Himachal Pradesh, India. By use of five hundred and sixteen questionnaires, data were collected using a combination of multi-stage and purposive techniques sampling as the target population was wide. Financial literacy was assessed in three dimensions of financial attitude, behavior, knowledge and awareness where the 5-likert scale was applied. Bhushan concluded that high

levels of financial literacy created more financial awareness of the financial products hence were found to be likely to make wiser investment decisions as compared to their counterpart with low financial literacy. Those with low financial literacy are usually constrained in terms of the choice of where to invest and therefore opt to invest in limited traditional products. Though traditional products are considered safer and to yield more return, they carry riskier. Bhushan argues that it is must to have at least a certain level of financial literacy to understand risk and return concepts as well as choice of financial products correctly. Hence, the study stipulates that:

$H_{1:}$ under high financial literacy, overconfidence positively affects investment decision

METHODOLOGY

The study used explanatory research design in positivist paradigm. This paradigm was selected since the study used quantitative data to establish direct and moderating effect of the variables under study. The concept of Positivism is directly associated with the idea of objectivism. This was prompted by the use of structured questionnaires and a larger number of samples as compared to its counterpart paradigm. The study used explanatory research design to assess and establish the effect of behavioral factors, financial literacy on SME investment decisions in Nairobi County. Target populations of 102,821 registered SMEs within Nairobi County were considered (Nairobi County, Ministry of Trade, 2016). Managers were selected purposively on the grounds that they are in a superior position to comprehend investment decision issues of SMEs and in a position to give the correct data. Based on hyper-geometric distribution formulae, the study used stratified and random sampling technique to select a sample size of 383 participants. Similar studies (Morris, 2014) have adopted the hyper-geometric distribution due to its ability to estimate sample sizes from large populations accurately. The study used questionnaires to collect primary data. The study adopted primary data collected from firms, or entrepreneurs through structured and unstructured questionnaires. Snapshots or cross-section method was used since data extracted only with the collection period. It employed quantitative approach where quantitative techniques were utilized. Data collected were using 5 point Likert scale which was coded to numerical data using ordinal scales.

Reliability, Validity and Measurement of Variables

The 5-point Likert scales, which are rating scales widely used for asking respondents' opinions and attitudes (Fisher, 2010), were utilized to ask the individual investors to evaluate the degree of their agreement with the impacts of behavioral factors on their investment decision as well as with the statements of investment behavior. The 5 points in the scale are respectively from 1 to 5: strongly disagree, disagree, no opinion, agree, and strongly agree.

Dependent variable

Investment Decision was measured using a proxy of 1 item on five point Likert scale (ordinal level) adopted and modified from Luu, 2014; Nyakundi (2017); Omery, 2014; Awais, Laber, Rasheed & Khursheed 2016; Kengatharaan and Kengatharaan (2014); Garang (2016) and Ojwang (2015).

Independent variable
Overconfidence was measured using 5 items on five point Likert scale (ordinal level) dereived from Acuto (2013); Raveendra, Jyothi, Padmalini & Santhosh (2018); Tahira, Wajira and Abirah (2014).

Moderating variable
Financial Literacy was a proxy of 8 items on five point Likert scale (ordinal level) adopted and modified from Garang (2016); Chaturvedi & Khare (2012) and Sood & Medury (2012)

Control variables
Age and size of firm are some of the factors that need to be considered in any assessment of an industry. According to Rampini and Viswanathan (2011, 2013) age and size of the firm affects the financial management of risks. In a similar study, Rampini, Sufi and Viswanathan (2014) argued that financial risk affect investment decision since most investor would tend to redirect the resources to less risky investiments. Controlling age, size and type of industry this study would be able to investigate if there is significant change in behavioural factors on investment decision

Reviewed literature demonstrates constructs testing for reliability accomplished by ascertaining the Cronbach's alpha coefficient. Every one of the constructs was found to have a sufficient alpha value (> 0.6) (Hair *et al*., 1998). Every item was measured using the five-point Likert scale. In evaluating, fit between the items and their constructs, majority of the essential element loadings were more noteworthy than 0.5 and had no cross-loadings. The researcher ran a principal component analysis to identify patterns in data, and to express the data in such a way as to highlight their similarities and differences. Table 1 shows that the factor loadings for all items were above 0.5. The Kaiser-Meyer-Olkin Measure value was above 0.5 hence acceptable. Also, the Bartlett's Test was significant.

Table 1: Reliability and validity results

n=366	Mean	loadings	Bartlett's Test	%CV
Investment Decision (KMO = .616, cronbach alpha = .711)	3.82		283.737**	45.95
In general, the SME satisfied with the way of making investment decisions	4.240	0.548		
SME decision-making helps the enterprise to achieve its investment objectives	4.390	0.779		
SME investments decisions can mostly earn higher than average return in the market	4.210	0.770		
SME makes all investment decisions on its own	4.190	0.585		
SME has increased the amount to be invested in asset category	3.700	0.724		
SME has been able to open many branches in other parts of the country	3.880	0.515		
SME has been able to diversify its business in other sectors	3.890	0.679		
The SME is able to borrow more loans which have increased its business stock	4.110	0.637		
Overconfidence (KMO = .790, cronbach alpha = .818)	3.730		634.704**	57.852
Over estimation affects the ability to control the financial outcome	3.510	0.832		
Investment in the business is always overestimated	3.750	0.809		
Personal ability and competencies are overestimated in making decisions	3.870	0.744		
Loss and risk are overlooked before making investment deals	4.000	0.749		
Debt finance decisions are mostly based on credit rather than loans.	4.060	0.657		
Financial Literacy(KMO = .708, cronbach alpha = .718	4.120		580.215**	52.819
The entrepreneur has knowledge on financial management	4.000	0.762		
Well conversant when it comes to matters relating to financial issues	4.160	0.770		
There is confidence in making financial or saving decisions	4.310	0.744		
The entrepreneur understanding of financial planning	4.110	0.627		
The SMEs sets financial goals and objectives for my business	3.920	0.728		
The SMEs gather data and analyze current financial situation before make a financial decision	3.660	0.728		
The entrepreneur executes plan with the help of experts i.e. financial planner, insurance advisor, etc.	3.040	0.588		
The SMEs review financial plan periodically after implementation	3.970	0.521		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Data Analysis and model specification

Analysis involved the interpretation of survey data. Once completed the study data was analyzed, that is; the data collected from questionnaires, using both descriptive and inferential statistics. Descriptive statistics such as frequencies, percentages, mean and standard deviation was used mainly to summarize the data. Scale reliability and validity was assessed using Cronbach's coefficient alpha and factor analysis. Further, the study employed inferential statistics in form of multiple regression and Pearson correlations analyses. The hypotheses were tested using moderated regression analysis to establish the extent to which the moderator variable affects the relationship. The moderator effect was examined using regression analysis procedures as outlined by Aiken and West (1991).

$InvDec = \beta o + \beta_1 FA + \beta_2 FS + {}_{\varepsilon 1}$

$InvDec = \beta o + \beta_1 FA + \beta_2 FS + \beta_3 OV + \varepsilon_2$

$InvDec = \beta o + \beta_1 FA + \beta_2 FS + \beta_3 OV + \beta_7 FL + \varepsilon_3$

$InvDec = \beta o + \beta_1 FA + \beta_2 FS + \beta_3 OV + \beta_7 FL + \beta_8 OV * FL + \varepsilon_4$

Where:

InvDec- Investment Decision

FA- Firm Age

FS-Firm size

OV-Overconfidence

β_0-is a constant

ε-is Error term (unexplained variation due to other unmeasured factors).

RESULTS

This section provides findings of the empirical research on the direct relationship between overconfidence with investment decisions among small and micro enterprises in Nairobi County. It also provides results on the moderating role of financial literacy on the relationship between behavioral factors and investment decisions among SMEs. The data also was checked for reliability which assisted to ensure that all the questions were reliable. The data obtained was then manipulated based on the loaded question in the factor analysis to obtain mean values for overconfidence financial literacy and investment decision per question. The z-score were also produced for each mean for overconfidence, financial literacy and investment decision. The new variables that were introduced assisted in development of the models that would test the hypothesis.

Sample characteristics

Demographic characteristic of SMES were provided; firm size, business age, experience of SME's manager or owner, education level of SME's manager or owners and country of origin. Majority of SMEs firm were micro in size with 314 respondents representing 85.8% while Small firm sizes were 52 respondents representing 14.2% of total respondents. There were six times as many Micro as were Small size firms. The experience of the respondents was evaluated where majority 207 respondents representing 56.6% of the total respondents have worked in the enterprise for 5-9 years. It was followed closely by less than 4 years with 99 respondents representing 27% then 10-14 years with 48 respondents representing 13.1% and finally above 15 years representing 3.3% of the respondents. Education level had 21 respondents representing 5.7% had secondary level of education and below. Majority of entrepreneurs had diploma with 191 respondents representing 52.2%, undergraduate degree were 130 respondents representing 35.5% and postgraduate were 24 respondents representing

6.6% of total respondents. Since majority of the entrepreneurs possess high levels of education, they are likely to capitalize on financial publications while making investment decisions as opposed to seeking advice from family members, friends and brokers. Finally, results indicated that 359 respondents representing 98.1% were Kenyans while 7 respondents representing 1.9% were foreigners. Kenyan owners therefore represented majority of business owners.

Univariate analysis

From the findings, financial literacy had the highest mean (4.12) followed by investment decision (3.82) while overconfidence had the lowest mean (mean = 3.73). The implication is that entrepreneurs have high levels of financial literacy and are less overconfident in their investment decisions. The standard deviations for all the variables except prospect factors were less than 1 indicating less variations in the responses. Table 2 also highlights the findings on the correlation between to behavioral factors, financial literacy and investment decision. The results revealed that overconfidence has significant positive relationship with investment decision r = .598 $\rho \leq .05$). Similarly, overconfidence has significant positive relationship with investment decision r = .598 $\rho \leq .05$).

Table 2: Univariate analysis

n=366	Mean	ID	OC	FL	FS	BA
Investment Decision(ID)	3.82	1	.598**			
Overconfidence(OC)	3.73	.598**	1			
Financial Literacy(FL)	4.12	.713**	.490**	1		
Firm Size(FS)	-	.149**	.123*	.133*	1	
Business Age (BA)	-	0.082	0.058	.128*	.440**	1

*** Correlation is significant at the 0.01 level (2-tailed).*

** Correlation is significant at the 0.05 level (2-tailed).*

Test of hypothesis

These hypotheses (H_1 and H_2) were tested using hierarchical regression. Prior to conducting hierarchical regression analyses, all study variables were standardized as z-scores to test for interaction terms (Aiken & West, 1991; Jose, 2008). Z-standardization of the variables allows easy interpretation of the interaction effects (Dawson, 2014).

Hypothesis 1(H_1) stated that overconfidence negatively affects investment decision among SMEs in Nairobi County. Findings showed that overconfidence had coefficients of estimate which was insignificant basing on $\beta_1 = 0.011$ (p-value = 0.807 which is less than $\alpha = 0.05$). The null hypothesis was thus rejected and it was concluded that overconfidence had no significant effect on investment decision among SMEs in Nairobi County. This suggested that overconfidence would bring about no change in terms of investment decision. The findings are in disagreement with extant literature that has established that overconfidence has a positive relationship with investment decision (Acuto, 2013; Hassan, Khalid & Habib, 2014; Javed, Bagh and Razzaq, 2017). Also, the study findings are contrary with the results from Hassan, Khalid & Habib (2014) though the result compared with risk tolerance which found that men and older people tend to be over confident as well as risk tolerant. The current study indicated that found that risk and loss are also associated with overconfidence which also influences investment decision. The results are therefore in contrast with Acuto (213) where overconfidence had a positive influence on investment decisions.

H_2 specified that financial literacy moderates the relationship between overconfidence factors and investment decision. The regression results showed a positive and significant moderating effect of financial literacy on the relationship between overconfidence and investment decision (β = .42, ρ< .05). The results indicated R^2 = .72, ΔR^2 = .07 found financial literacy contributed 7% of the variation in investment decision Hence, the null hypothesis was accepted. This implies that financial literacy strengthens the relationship between overconfidence and investment decision. The implication is that financial literacy makes the relationship between overconfidence and investment decision significant. The independent contribution of financial literacy showed to have more contribution to investment decision than overconfidence. The findings conform to that of Buchanan (2013) which indicated that financial literacy affects the performance of investment decision. The results revealed that despite being a demographic feature, it plays a role in improving the performance of the organization through sound decision making. Hence there is need for low overconfidence and increase financial literacy to reduce the negative interaction of the two variables and improve investment decision made.

Table 3: Hierarchical regression model for Moderation effect

	Model 1	Model 2	Model 3	Model 4
	B(se)	B(s.e)	B(s.e)	B(se)
(Constant)	(-0.05(.05)	(-0.05(.03)	(-0.05(.03)	(-0.01(.03)
Zscore:FS	0.15(.06)*	0.11(.04)**	0.10(.04)*	0.09(.03)*
Zscore:BA	0.13(.01)	(-0.01(.07)	.00(.06)	0.04(.06)
Zscore: OC		0.07(.05)	0.09(.05)	(-0.55(.08)**
Zscore:FL			0.20(.05)**	(-0.29(.07)**
Zscore(OC*FL)				0.42(.01)**
Model Summary	1	2	3	4
R	0.21	0.79	0.80	0.85
R Square	0.04	0.63	0.65	0.72
Adjusted R Square	0.03	0.62	0.64	0.71
Std. Error of the Estimate	1.03	0.64	0.63	0.56
Change Statistics				
R Square Change	0.04	0.59	0.01	0.07
F Change	3.28	141.26	14.18	93.08
df1	5	4	1	1
df2	360	356	355	354
Sig. F Change	0.01	0.00	0.00	0.00

h Dependent Variable: Zscore: Investment Decision
***p<.01, *p.05*
FS= Firm Size, BA= business age, OC=Overconfidence, FL=financial literacy

The interaction plot in Figure 1 displays an enhancing effect that as financial literacy increases, the effect of overconfidence factors on investment decision increases as well, as depicted by the steepness of the slope. However, as overconfidence factors increases, investment decisions increase drastically with high financial literacy but increases marginally with low financial literacy.

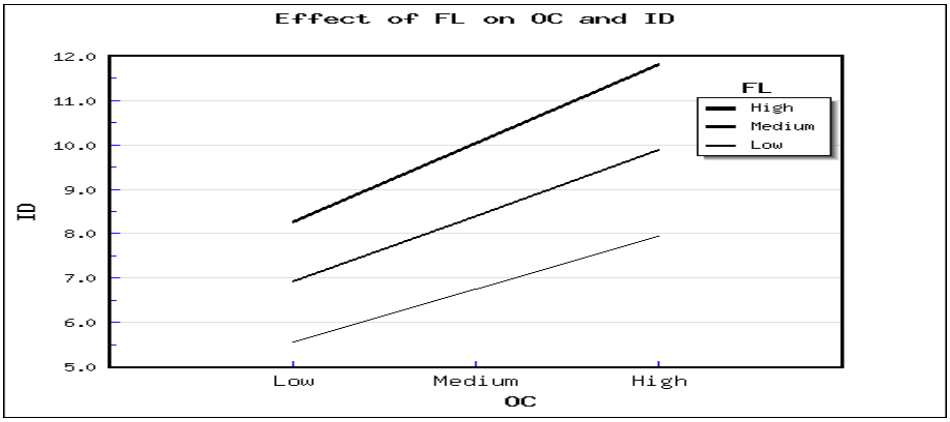

Figure 1: Moderating Effect of Financial Literacy on Overconfidence Factors and Investment Decisions

CONCLUSION AND RECOMMENDATIONS

In relation to overconfidence, the findings indicated that debt finance decisions are mostly based on credit rather than loans. It was also established that loss and risks are overlooked before making an investment deal. Further the entrepreneurs are overconfident about making investment decisions since they do not take into consideration loss and risks. Moreover, personal ability and competencies are overestimated in making decisions. Consequently, investment in the business is always overestimated. Also, overestimation affects the ability to control the financial outcome. The results of multiple regressions indicate that overconfidence had no significant effect on investment decisions among SMEs in Nairobi County. Therefore, the null hypothesis was accepted. However, when moderated with financial literacy, overconfidence positively influences investment decision among the SMEs. Therefore, the null hypothesis was rejected and the alternate hypothesis accepted which was that financial literacy does moderate the relationship between overconfidence and investment decisions among small and micro enterprises in Nairobi County.

The interactive effect of financial literacy reduces the effect of improve overconfidence and more people would invest even in riskier investment since it had positive interactive effect on overconfidence and investment decision. It implies that financial literacy assists in enabling the investors gain knowledge on how to invest in risker investment improve decision made in the firms. Firms' size also contributed to better decision making as well as prospect factor, herding factor and anchoring factor. Behavioral portfolio also explains maximization of returns which is explained by the effect on investment decision. Competency theory explains the need for financial literacy. The results indicated that with introduction of financial literacy the investment decision was improved which further improved on interaction with behavioral factors. This explains the need for improve financial skills, knowledge and awareness in firms. Finance literacy affected positively overconfidence and herding factor on investment decision but negatively affect anchoring on investment decision, despite not affecting investment decision on interaction with prospect factors.

Financial literacy also played the main role not only in investment decision but also in improving overconfidence. Financial literacy improves individual knowledge and skills on how to invest in riskier project as well as information that follow and implement.

Therefore, there is need for continuous improvement of manager skills so as to enable them applies financial concepts and knowledge for improving their performance and making appropriate investment decisions. This can be done through training and human development on financial concepts, knowledge and awareness and improving decision making.

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