

# Moderating Effect of Business Size and Age on the Relationship between Financial Literacy and Financial Performance of Craft Micro Enterprises in Kisii County, Kenya

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**Abstract:** Craft micro enterprises contribute up to 20% to employment and 15% to Gross Domestic Product (GDP) in emerging economies through tax revenue and foreign exchange. In spite of funding and training interventions by stakeholders, statistics indicate that financial performance of craft micro enterprises is on a rapid decline, especially in the soapstone-based micro enterprises in Kisii, which poses a risk to both Kenya's GDP, and the many residents in the area who depend on the industry for survival. Although several studies have attempted to establish the cause of this poor performance, the endogenisation of both business size and age as moderating factors on the relationship between financial literacy and financial performance of the craft micro enterprises in Kisii has received far less attention empirically. The objective of the present study was therefore to investigate the moderating effect of business size and age on the relationship between financial literacy and financial performance of the craft micro enterprises. Using a correlational research design, the study targeted 532 entrepreneurs operating under 23 registered self-help groups. Stratified random sampling was employed to select 228 respondents for the study. Primary data was collected using structured questionnaires. Results showed that business size has a significant moderating effect on the relationship between financial literacy and financial performance of the craft micro enterprises. It is recommended that stakeholders in the craft industry in the soapstone industry should enhance financial literacy trainings to the entrepreneurs and increase financing to grow the enterprises if they seek to improve their financial performance.

**Keywords:** Financial Literacy, Craft Micro enterprises, Financial Performance, Business Size, Business Age

## I. INTRODUCTION

According to [1], micro enterprises contribute a significant amount to employment and to the Gross Domestic Product (GDP). Specifically, the micro enterprises in Kenya contribute up to 30% to employment and 23% to (GDP). As observed by [2], the craft industry, which mainly involves itself in the creation and production of a broad range of utilitarian and decorative items on a small scale using natural or synthetic materials with hand processes being a substantial part of the value added content, contributes a significant amount of revenue to the entrepreneurs. According to [3], up

to 80% of the soapstone handicrafts sales for Tabaka area of Kisii County are from the international market a good source of earning foreign exchange important for alleviation poverty within the community. This sector is therefore a critical economic pillar to Kenya's Vision 2030 [4].

There is an abundance of empirical evidence over the years on the challenges facing the craft micro enterprises especially in developing countries such as Kenya. For instance, [5] reports that the industry faces challenges due to its being unorganized, lack of relevant education for operators, low investment capital, poor exposure to new technologies, absence of market intelligence, and poor institutional framework. Elsewhere, [6] asserts that craft micro enterprises in emerging countries face challenges of ineffective marketing skill and lack of financial knowledge by the entrepreneurs that makes them highly prone to losses.

Supported by a large body of statistics that provide evidence of multi-sectoral intervention in the solution of the challenges that the craft micro enterprises face, extant literature shows mixed results on the effect of such interventions. One of the critical interventions has been in the area of financial literacy [7]. Despite the rapid spread of such financially complex products to the retail marketplace such as mortgages, credit cards, pension accounts and annuities, many of these have proven to be difficult for financially unsophisticated investors to master. While these developments have their advantages, they also impose on small scale businesses such as craft micro enterprises a much greater responsibility to borrow, save, invest, and decumulate their assets sensibly by permitting tailored financial contracts. This calls for the need to equip small and micro enterprise business owners such as those in the craft industries with financial literacy.

Reference [7] defined financial literacy as the peoples' ability to process economic information and make informed decisions about financial planning, wealth accumulation, and debt. According to them, three important concepts measure financial literacy: the capacity to do calculations related to interest rates, such as compound interest; understanding of inflation; and, understanding of risk diversification. The first

concept measures numeracy or the capacity to do a simple calculation related to compounding of interest rates. The second concept measures understanding of inflation in the context of a simple financial decision, while the third concept is a test of knowledge about risk diversification, since the answer to this question depends on knowing what a stock is and that a mutual fund is composed of many stocks.

There are several empirical studies on the effect of training on performance of micro enterprises. A study by [8] on the impact of training on performance of Micro and small enterprises (MSEs) in Kenya revealed that training has a substantial impact on performance of entrepreneurs. The study however studied entrepreneurship education in general without specifically focusing on financial literacy. A study by [9] also showed that intellectual capital components of managerial skills, entrepreneurial skills, innovativeness, structural capital, and customer capital have a great positive influence on the growth of enterprises in Kenya. The study was not specific on the type of enterprises that were studied.

Measurement of organizational performance is not easy for business organizations with multiple objectives of profitability, employee satisfaction, productivity growth, corporate social responsibility and adaptability [10]. Reference [11] defined performance as the way an organization performs vis-a-vis other similar organizations in its industry, not only on traditional financial indicators of performance but on important non-financial indicators as well. According to [6] the financial perspective uses a financial performance measurement indicator as to whether the company's strategy, implementation and execution are affecting the bottom-line enhancement. Financial goals for large companies will be profitability, growth and shareholder's value.

According to the resource-based theory upon which the present study was based, a firm's competitive advantage is based on the possession of tangible and intangible resources, which are difficult or costly for other firms to obtain [12]. In order to sustain the firm's competitive, advantage these resources must be valuable, rare, inimitable and unsubstitutable [13]. A major contribution of resource-based theory is that it explains long-lived differences in firm profitability that cannot be attributed to differences in industry conditions. It can be argued that considerable resource heterogeneity exists among various shareholder categories. For emerging economy firms, these differences arise from shareholders being either foreign or domestic and financial or strategic.

According to [14], business size is a primary factor in determining the profitability of a firm due to the concept of economies of scale in the neo classical view of the firm. Reference [15] showed that in today's world firm size is very critical to performance due to the phenomenon of economies of scale. Essentially, it means larger entities can obtain cost leadership relative to smaller firms. Firms size is seen by

manufacturing companies as a resource in obtaining sustainable competitive advantage in terms of profit and market share. Elsewhere, [16] observed that the association between firm performance and firm size was ambiguous and cautioned need for industry specific consideration while, advising researchers to proceed on a case-by-case basis of analysis and avoid the tendency to generalise. However, [17] observes that the nature of the relationship that exists between firm size and profitability is an essential matter that may shed some light on the factors that enhance profits in firms.

The link between firm size and performance has been contentious since the hypothesis by [18] that described that firm's growth rate is independent of its size. In a study by [19], it was showed that larger and older firms were less productive, but that the evidence was less than conclusive. In more recent studies, however, a positive relationship has been established between the size of the firm and profit. For example, [15] in their study found that firm size, both in terms of total assets and in terms of total sales, has a positive effect on the profitability in Nigerian manufacturing companies. Accordingly, [20] in their study of Portuguese manufacturing firms validated the view that availability of more accurate and complete data set has been adduced as the reason for the conflict between what was previously held as independent relationship between firm size and growth and new findings that there is positive relationship. Elsewhere, [18] argued that larger firms have stronger competitive capability than the smaller ones as a result of their superior access to resources. Thus, while size has been accepted as a main feature in the firm performance debate ([14], [15], & [20]) it is not clear how it affects the relationship between financial literacy and financial performance of craft micro enterprises.

Firm age will also be used as a control variable since board composition elements are rooted in time [21]. Further, controlling for firm age is important because older firms have financial performance and financial literacy decisions at the centre stage, which may influence firm performance.

## II. OBJECTIVES OF THE STUDY

The main objective of the study was to investigate the moderating effect of business size and age on the relationship between financial literacy and financial performance of craft micro enterprises in Kisii County, Kenya.

## III. METHODOLOGY

The study adopted a correlational research design and targeted 532 entrepreneurs operating under 23 registered self-help groups. Random sampling was employed to select 228 respondents for the study. This study used primary data that were collected using a questionnaire. To check the validity and reliability of the questionnaires in gathering the data required for purposes of the study, a pilot study was carried out on 15 craft micro entrepreneurs who were finally not included in the study. Data analysis was conducted using SPSS version 24. Both descriptive and inferential statistics

were generated. The specific descriptive statistics included percentages and frequencies while the inferential statistics included Pearson correlation and the hierarchical multiple linear regression model.

IV. RESULTS AND DISCUSSION

A. Response Rate

The number of questionnaires that were administered was 228. Out of these, a total of 172 questionnaires were properly filled and returned. This represented an overall successful response rate of 75.4%. According to [22] a response rate of 50% is adequate for a correlational study. Accordingly, [24] also assert that for studies carried out at the organizational level, the acceptable data collection rate should be over 35%. Therefore, the data collection in the present study met this criterion and hence was suitable in ensuring accuracy and minimization of bias.

B. Joint Regression Model before Moderation

A multiple regression was first run before moderation. The regression was run to determine the relationship between independent variable of financial literacy (FLIT) measured by the three constructs of knowledge of Interest Rates (INTR), knowledge of Inflation (INFL) and knowledge of Diversification (DIVER) and dependent variable of financial performance (FP). Table I, II and III below show the results of the regression output.

The results in Table I present the correlation between financial literacy constructs and financial performance. As it can be inferred from the table, the independent variables were found to have a positive and significant relationship with financial performance of the craft micro enterprises with the correlation being 0.346, 0.394 and 0.272 for knowledge of Interest Rates (INTR), knowledge of Inflation (INFL) and knowledge of Diversification (DIVER) respectively.

The Analysis of Variance (ANOVA) Table II shows that the model is fit for prediction of financial performance among the craft micro enterprises. This is shown by the F-ratio of 165.563, which is significant.

Table III for regression coefficients shows that all the measures of financial literacy have a positive significant effect on financial performance of the craft micro enterprises. Specifically, knowledge of inflation has a coefficient of 0.391 ( $p = .002$ ) which implies that the knowledge of inflation leads to a 39.1 percentage increase in financial performance of the craft micro enterprises holding all other factors constant. Similarly, knowledge of interest rates leads to a 40.1 percentage increase in financial literacy ( $\beta = 0.401, p = 0.21$ ) holding all other factors constant. Knowledge of diversification leads to a 29.6 percentage increase in financial performance ( $\beta = 0.296, p = 0.10$ ) holding all other factors constant.

To test for moderation, the following models were tested for each moderator:

Test 1: Business Size Moderation;

Model 1:  $FP = \beta_0 + \beta_1FLIT + e$

Model 2:  $FP = \beta_0 + \beta_1FLIT + \beta_2BSIZ + e$

Model 3:  $FP = \beta_0 + \beta_1FLIT + \beta_2BSIZ + \beta_3BLIT*BSIZ + e$

Test 2: Firm Age Moderation;

Model 1:  $FP = \beta_0 + \beta_1FLIT + e$

Model 2:  $FP = \beta_0 + \beta_1FLIT + \beta_2BAGE + e$

Model 3:  $FP = \beta_0 + \beta_1FLIT + \beta_2BAGE + \beta_3BLIT*BAGE + e$

Where FP is Financial Performance

FLIT is Financial Literacy

BSIZ is Business Size

BAGE is Business Age

e is the disturbance term assumed to have a constant variance

Table I: Correlation between Study Variables

	FP	INTR	INFL	DIVER
FP	1			
INTR	.346***	1		
INFL	.394***	.136	1	
DIVER	.272***	.124	.056	1

Note: \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table II: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	60.425	2	28.808	165.563	.000 <sup>a</sup>
	Residual	6.773	169	.174		
	Total	67.198	171			
Predictors: (Constant), INTR, INFL, DIVER						
Dependent Variable: FP						

Table III: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t-stat	Sig.	
	Beta	Std. Error	Beta			
1	(Constant)	0.376	0.286		1.315	.002
	INFL	0.391	0.165	0.308	2.370	.038
	INTR	0.401	0.154	0.421	2.600	.021
	DIVERS	0.296	0.106	0.207	2.792	.010

a. Predictors: (Constant), FLIT

b. Predictors: (Constant), FLIT, BAGE

c. Predictors: (Constant), FLIT, FAGE, FLIT\*BAGE

d.

Change Statistics									
Model	R	R Square	Adjusted R Square	Std. Error of Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.348 <sup>a</sup>	.121	.112	9.52457	.121	13.352	1	171	.000
2	.436 <sup>b</sup>	.190	.191	9.77880	0.078	9.050	1	170	.052
3	.325 <sup>c</sup>	.106	.113	8.55181	-.085	1.133	1	169	.063
a. Predictors: (Constant), <i>FLIT</i>									
b. Predictors: (Constant), <i>FLIT</i> , <i>BAGE</i>									
c. Predictors: (Constant), <i>FLIT</i> , <i>FAGE</i> , <i>FLIT*BAGE</i>									

Change Statistics									
Model	R	R Square	Adjusted R Square	Std. Error of Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.348 <sup>a</sup>	.121	.112	9.52457	.121	13.352	1	171	.000
2	.396 <sup>b</sup>	.157	.139	9.37828	0.36	4.050	1	170	.047
3	.535 <sup>c</sup>	.286	.213	9.32161	.129	2.172	1	169	.003
a. Predictors: (Constant), <i>FLIT</i>									
b. Predictors: (Constant), <i>FLIT</i> , <i>BSIZ</i>									
c. Predictors: (Constant), <i>FLIT</i> , <i>BSIZ</i> , <i>FLIT*BSIZ</i>									

### C. Moderating effect of Business Age

Table IV shows that business age is not a moderator in the relationship between financial literacy and financial performance of the craft micro enterprises. This is shown by the insignificance of the models two and three in the table ( $p > .005$ ). This implies that the age of the business does not magnify the relationship between the independent and the dependent variables. This seems to imply that older craft micro enterprises have no financial performance advantage over young craft micro enterprises when financial literacy is considered.

### D. Moderating effect of Business Size

As shown in Table V, business size is a significant moderator of the relationship between financial literacy and financial performance of craft micro enterprises. Accordingly, the three models were all significant ( $p < 0.05$  in all the three cases). The Coefficient of Determination (R square) for the first model was 0.121, meaning that financial literacy, on its own, contributed 12.1% to the change in financial performance in the craft businesses. However, upon the introduction of Business Size as predictor, the R square significantly changed from .121 (12.1%) to .157 (15.7%) an increase of 0.36. This means that Financial Literacy with Firm Size can explain up to 15.7 % of the financial performance. With addition of the cross-interaction term (*FLIT\*BSIZ*) the model further improved albeit marginally to R square of .286, a significant increase of 0.129. This implies that firm size significantly moderates the relationship between financial literacy and financial performance by a significant 12.9%. To inform policy, the results imply that bigger craft micro enterprises

would gain a 12.9% increase in financial performance for every unit of financial literacy, as compared to smaller craft micro enterprises.

## V. CONCLUSION AND RECOMMENDATION

Results showed that financial literacy has a positive significant effect on financial performance of the craft micro enterprises. Additionally, it was shown that business size has a significant moderating effect on the relationship between financial literacy and financial performance of the craft micro enterprises.

Business age on the other hand was shown to have no significant effect on the on the relationship between financial literacy and financial performance of the craft micro enterprises.

It is recommended that stakeholders in the craft industry enhance financial literacy trainings to the entrepreneurs with emphasis on growing the craft micro enterprises by increasing financing if they seek to improve their financial performance.

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