The Scientific Temper (2025) Vol. 16 (3): 3875-3886
E-ISSN: 2231-6396, ISSN: 0976-8653
Doi: 10.58414/SCIENTIFICTEMPER.2025.16.3.04
https://scientifictemper.com/

RESEARCH ARTICLE

The effect of financial literacy on the medium scale enterprise performance: Evidence from Bench Sheko zone

Ayalew Ali[1], Cheirnet Demissie[2]

Abstract
Medium-sized enterprises currently encounter significant challenges in effectively managing their operations, often struggling to sustain long-term viability. Financial literacy equips business owners with the knowledge necessary to make informed and strategic decisions regarding financial matters, thereby fostering a robust business environment. However, the impact of financial literacy on the performance of medium-sized enterprises has not been thoroughly investigated. Consequently, this study aims to evaluate the influence of financial literacy on the performance of medium-sized enterprises in the Bench Sheko zone. An explanatory research design combined with a descriptive survey approach was utilized for this investigation. Out of a total of 453 medium-sized enterprises, 212 were selected using a stratified random sampling method. Financial literacy was treated as the independent variable, assessed through budgeting literacy, debt management literacy, accounting literacy, and saving literacy. In contrast, enterprise performance was measured as the dependent variable through return on assets. The findings indicated that budgeting literacy, debt management literacy, accounting literacy, and saving literacy positively and significantly affect the performance of medium-sized enterprises. Therefore, it is recommended that the government enhance the financial literacy of medium-sized enterprise owners through training programs and by integrating financial literacy topics into formal education, thereby improving the performance of these enterprises.

Keywords: Financial literacy, performance, medium-scale enterprise and return on asset

Introduction

Financial literacy is increasingly recognized as a critical issue across nations, as a lack of financial knowledge can result in instability for businesses and hinder the economic growth of a country. This topic has garnered significant attention in both developed and developing regions, given its essential role in individual financial decision-making and overall financial stability (Kalekye and Memba, 2013). Financial illiteracy has been widely identified as a contributing factor to financial crises, leading to a surge in research focused on financial literacy in the years following such events (Fernandes, 2015). The heightened interest in financial literacy can be attributed to the deregulation of financial markets and the growing accessibility of credit, as financial institutions compete vigorously for rapid growth in the development and marketing of financial products and to capture market share (Marcolin & Abraham, 2006).

Financial literacy is significant across multiple dimensions. It plays a crucial role in enhancing the stability and effectiveness of the financial system, as well as in bolstering economic performance. Additionally, it empowers individuals to effectively manage their financial activities, thereby improving their quality of life (Keith Hall, 2008). As noted by Brown, Saunders, and Beresford (2006), financial literacy is particularly vital for business owners, as it equips them with the necessary financial tools to make informed decisions. A proper comprehension of financial information is essential, as it greatly influences the future success of their enterprises.

In the contemporary marketplace characterized by complex products, the necessity for financial literacy is increasingly evident (Gowri & Sekar, 2015). Consequently, consumers who possess financial literacy present a reduced risk to the financial system, as their prudent utilization of financial products and services enhances the stability of financial markets and fosters more significant savings, economic growth, and development (Lusimbo,

[1]Assistant professor, Mizan-Tepi University, College of Business and Economics

[2]Mizan- Tepi University, College of Business and Economics

***Corresponding Author:** Ayalew A. Abebe, Department of Cooperative, College of Business and Economics, Mizan-Tepi University, Ethiopia., E-Mail: ayalewali@mtu.edu.et

How to cite this article: Ali, A., Demissie, C. (2025). The effect of financial literacy on the medium scale enterprise performance: Evidence from Bench Sheko zone. The Scientific Temper, **16**(3):3875-3886.

Doi: 10.58414/SCIENTIFICTEMPER.2025.16.3.04

Source of support: Nil

Conflict of interest: None.

Received: 26/12/2024 **Accepted:** 11/02/2025 **Published** : 20/03/2025

2016). Additionally, financial literacy plays a crucial role in advancing financial inclusion, which ultimately contributes to the financial stability of an economy (Gowri & Sekar, 2015). Moreover, a lack of financial literacy can adversely affect financial decision-making, leading to issues such as inadequate retirement planning, minimal engagement in the stock market, and poor borrowing practices, all of which are often linked to a deficiency in fundamental financial knowledge (Lusardi, 2008). Adamou and Danso (2014) indicate that enhanced financial literacy can lead to improved business performance. Likewise, the low financial literacy levels among entrepreneurs can hinder their enterprises' growth and ability to achieve sustainable outcomes (Musie, 2015).

Research has been conducted to explore the connection between financial literacy and the performance of firms. Chepngetich (2016) investigated this relationship specifically within medium-scale enterprises in Kenya, revealing that both borrowing and budgeting financial literacy significantly influence enterprise performance. Additionally, Kimunduu, Erick, and Shisia (2016) demonstrated that elevated levels of financial literacy, particularly in personal saving skills, bookkeeping skills, and financial services among owners of small and medium-scale enterprises, correlate with improved financial performance. Despite the existing studies on financial literacy, there remains a lack of comprehensive research addressing its impact on the performance of medium-scale enterprises in the Bench Sheko zone. Consequently, this study aims to assess the effect of financial literacy on the performance of medium-scale enterprises in the Bench Sheko zone, addressing the identified research gap with the following objectives:

- To examine the effect of budgeting literacy on the medium-scale enterprise performance in the Bench Sheko zone.
- To determine the effect of debt management literacy on the medium-scale enterprise performance in the Bench Sheko zone.
- To examine the effect of accounting literacy on the medium-scale enterprise performance in the Bench Sheko zone.
- To examine the effect of saving literacy on the medium-scale enterprise performance in the Bench Sheko zone.

The findings of this study may prove advantageous for owners of medium-sized enterprises, government officials, and policymakers in their decision-making processes. Additionally, they will serve as a valuable resource for researchers who are focused on this field of study.

Literature review

Concepts of financial literacy and performance

Financial literacy encompasses the understanding of how to effectively manage financial matters, enabling individuals to make informed and significant decisions regarding borrowing, saving, and spending. This knowledge is crucial for business owners as it aids in enhancing the financial health of their enterprises. Various researchers have employed different variables to evaluate the financial literacy levels of their subjects. For instance, Sucuahi (2013) assessed financial literacy through record-keeping, budgeting, savings, and financial skills. Patrick (2015) focused on debt management, record-keeping, and budgeting skills as key management practices. Additionally, Ibrahim (2017) evaluated the financial literacy of university students who owned small and medium-sized enterprises (SMEs) in Kenya by examining their financial attitudes, knowledge, and behaviors.

Performance can serve as an indicator of how effectively a company utilizes its assets within its core business operations to generate revenue. Additionally, performance acts as a comprehensive gauge of a company's overall financial health over a specified time frame, allowing for comparisons among similar firms within the same industries or sectors in aggregate. Forsman (2008) assessed financial performance using various financial indicators, including sales growth, market share, cost reduction, and operating profit ratio. Mwithiga (2016) and Wood (2006) evaluated firm performance based on return on investment and profits. Adomako and Danso (2014) focused on return on assets as a measure of firm performance. Wiklund and Shepherd (2005) employed gross margin, specifically the ratio of gross profit to sales, to assess the financial performance of businesses.

Furthermore, business owners must evaluate the most effective methods for borrowing funds and managing financial risks while also being vigilant against potential scams (Taylor & Wagland, 2013). Proficiency in numerical calculations and a fundamental understanding of economic principles are essential components of financial literacy (Remund, 2010). Financial performance is defined as the extent to which financial goals have been achieved (Githaiga & Kabiru, 2015). It is typically assessed through various ratios, including return on equity, return on assets, return on capital, return on sales, and operating margin (Gilchris, 2013).

Empirical literature review and hypothesis development

Budgeting literacy and firms performance

Given the abundance of wants and the scarcity of resources, businesses often strive to identify methods to fulfill their desires despite limited means. Consequently, organizations tend to embrace budgeting and budgetary control as a strategy to meet their requirements at the lowest possible expense (Tunji, 2013). Kidwell and Turrisi (2004) define budgeting as the process of allocating all or a portion of an individual's total financial resources into specific categories to monitor expenditures against a concrete (either electronic or manual) financial forecast. It serves as a benchmark for evaluating an organization's performance. Budgeting is a crucial element of business planning. Patrick (2015) asserts that budgeting skills are vital for improving enterprise performance. These skills enable entrepreneurs to boost sales and profitability by establishing performance targets. Additionally, budgeting skills facilitate the efficient operation of the business (Siekei et al., 2013).

The budget plays a crucial role in the success of enterprises, as highlighted by Warue and Wanjira (2013), that the absence of budgeting is a significant factor contributing to business failures. Effective planning is essential for enhancing the productivity and profitability of medium-sized enterprises. Furthermore, Egbuna and Agali (2013) emphasize that strategic planning greatly influences the performance of these enterprises. Kidwell and Turrisi (2004) also assert that budgeting can alter individual spending behaviors through effective financial management. Consequently, this leads to a reduction in unnecessary expenditures and fosters a positive attitude toward maintaining a budget. Managing income and expenses is a fundamental aspect of business financial management; however, achieving this effectively requires a solid understanding of financial literacy. A lack of budgeting can result in decreased savings and investment rates, as well as diminished prospects for retirement planning (Kalekye & Memba, 2013). In light of these empirical findings, the researchers propose the following hypothesis:

H1: Budgeting literacy has a positive and significant effect on the performance of the medium-scale enterprise in Bench Sheko.

Debt management literacy and firms' performance

Medium-sized enterprises, like all businesses, require capital to facilitate their operations. Effective debt management refers to the capacity to secure external funding at a minimal cost and with manageable repayment obligations. Access to financing has been recognized as a crucial factor for medium-sized enterprises aiming to enhance their productive capacity, compete effectively, generate employment, and contribute to poverty reduction in developing nations (Patrick, 2015). Consequently, utilizing low-cost debt offers tax benefits that significantly lower taxable income and enhance profitability. Emmanuel and Puke (2015) contended that leveraging debt diminishes the tax burden on a firm and boosts returns for shareholders, a benefit not available through equity financing. Nevertheless, debt financing typically entails stringent conditions; it involves a company obtaining a loan with a commitment to repay it. Various factors, including the interest rate on the loan, the repayment period, leverage ratios, and interest coverage ratios, can significantly impact the equity returns of a leveraged firm. Therefore, a lack of awareness regarding the increasing obligations due to interest and substantial debt can lead to adverse business outcomes (Worthington, 2004).

Debts may be incurred through the acquisition of funds linked to interest, particularly when repayments are not made punctually, resulting in penalties. Alternatively, individuals may borrow money primarily for consumption purposes (Nyamute & Maina, 2011). Furthermore, Njiru (2012) demonstrated a significant correlation between the financial performance of medium-sized enterprises and the cost of credit. For example, a company that takes on excessive borrowing may experience debt overhang. Individuals who struggle to accurately assess interest rates from a series of payments often find themselves borrowing more, which leads to diminished financial returns and the accumulation of lesser wealth (Stango & Zinman, 2007). In light of these empirical findings, the researchers propose the following hypothesis.

H2: Debt management literacy has a positive and significant effect on the performance of the medium-scale enterprise in the Bench Sheko zone.

Accounting literacy and firms performance

Accounting literacy refers to the data generated by accountants and accounting systems. This data is typically organized in financial statements, including the income statement and the balance sheet. The quality of the information produced by the business is crucial, as it directly influences decision-making processes (Mukherji, 2002). Furthermore, proficiency in accounting is an essential skill for any business professional. This aspect of financial literacy underscores the importance of effective record-keeping systems, which are vital for business operations, as owners cannot depend solely on their memory to track daily transactions (Sucuahi, 2013). As noted by Patrick (2015), accounting serves two primary objectives: monitoring income and expenses to enhance profitability and gathering the financial data required for various tax filings. Additionally, it plays a significant role in financial decision-making, impacting the performance of medium-sized enterprises. Entrepreneurs who generate financial statements more regularly are more likely to repay loans and less likely to voluntarily shut down their businesses (Wise, 2013).

Business owners failing to maintain comprehensive accounting records makes it challenging for entrepreneurs to accurately assess their business profits (Mutua, 2015). Effective record-keeping in accounting allows organizations to plan effectively and monitor for any misappropriation of resources. Inadequate record-keeping or the absence of financial documentation can result in resource mismanagement and ineffective cash management, which adversely affects the growth of enterprises and may lead to failure (Dawuda and Azeko, 2015). In light of these empirical studies, the researchers propose the following hypothesis.

H3: Accounting literacy has a positive and significant effect on the performance of medium-scale enterprises in the Bench Sheko zone.

Saving literacy and firms' performance

Saving entails allocating a portion of income for future needs, which is essential for businesses to prepare for unforeseen circumstances or emergencies. Bernheim and Garrett (2003) indicate that individuals who receive financial education during high school or in the workplace tend to save more effectively. Enhanced financial literacy positively influences individual saving behaviors, as those with a better grasp of their financial situations are more capable of planning their future finances and making informed decisions. According to Abebe et al. (2016), business owners frequently under-save, even when they possess surplus funds and a desire to save, potentially due to gaps in knowledge and behavioral biases. Consequently, entrepreneurs with strong personal saving skills are observed to achieve higher profits compared to those lacking such knowledge (Kimundu et al., 2016). Traditional saving methods do not yield the same benefits as funds deposited in financial institutions, such as banks, which offer interest rates that can enhance business profits (Kelkaye & Memba, 2013). Saving is a more secure method for wealth storage than keeping cash at home; it can also serve as a strategy to mitigate the temptation to spend available cash and may facilitate access to credit in the future. Additionally, savings provide a safety net in emergencies (Abebe et al., 2016). In light of these empirical findings, the researchers propose the following hypothesis:

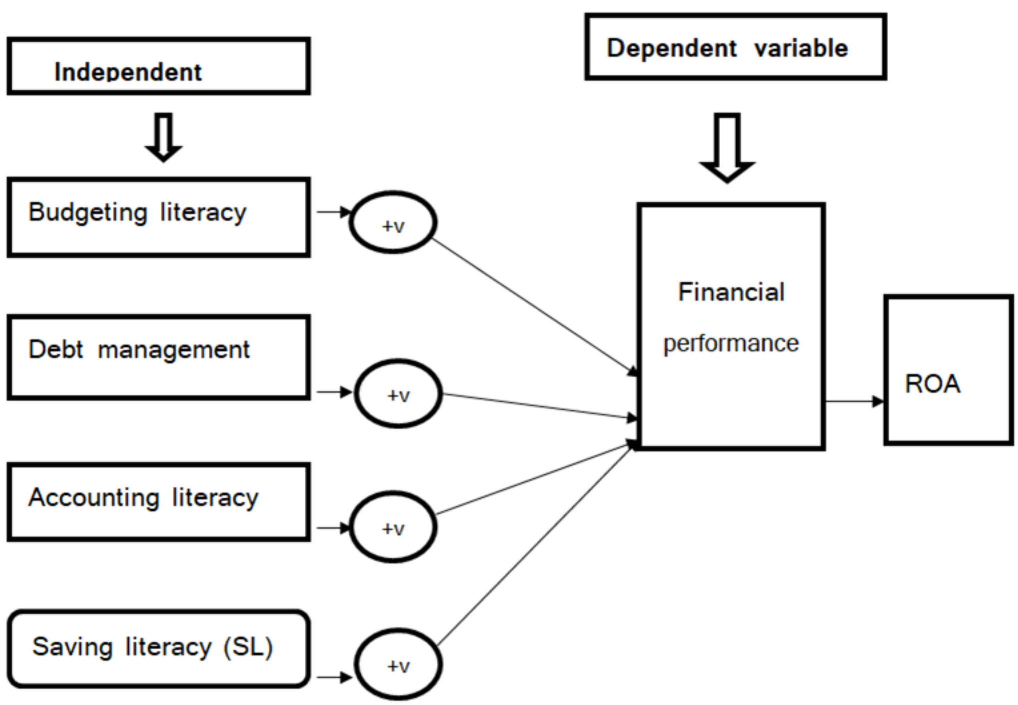
H4: Saving literacy has a positive and significant effect on the performance of medium-scale enterprises in the Bench Sheko zone.

Conceptual framework

Figure 1, presented below, illustrates the correlation between financial literacy and the performance of medium-scale enterprises in the Banch Sheko zone. The study's dependent variable is the performance of medium-scale enterprises, which is assessed through return on assets. Conversely, the independent variable is financial literacy, evaluated through budgeting, debt management, accounting, and saving literacy.

Research method

The research utilized both explanatory and descriptive survey designs, facilitating a straightforward elucidation and depiction of the conditions within the study area. Data was gathered from both primary and secondary sources pertinent to the study's objectives. The total population consisted of 453 medium-scale enterprises in the Bench Sheko zone, offering a variety of services. To obtain a suitable sample from these enterprises, which span various business sectors, including construction, manufacturing, trade, and services, stratified random sampling was employed. The researchers applied the Yamane and Taro (1967) formula



Source: Researcher's design (2024)
Figure 1: Conceptual framework

to determine the sample size from these diverse sectors.

$$n \frac{}{= \text{ N1} + \text{ Ne2} = 4531 + 453\left(0.05\right)2}$$

$$\frac{}{= 4531 + 453\left(0.0025\right)}$$

$$\frac{= 4531 + 1.1325 = 453}{2.1325} = 212$$

Model specifications

The primary objective of this research is to analyze the impact of financial literacy on the performance of medium-sized enterprises. A multiple linear regression model was employed to illustrate and assess the relationship between the dependent variable, which is the performance of medium-sized enterprises, and the independent variable, financial literacy. This model is utilized when the dependent variable is influenced by two or more explanatory variables (Gujarat, 2006). Various financial literacy factors were identified to explore their influence on the performance of medium-sized enterprises. The empirical model for this study will be structured as follows:

$$yi01Xi12Xi23Xi34Xi4 + \in i \text{ ………………………….1}$$

Where;

i= Cross-sectional observation, Y = performance of MEs, X1 = financial literacy

β1 = coefficient, β0 = is a constant term and **ϵi** = error term in the equation

$$ROAi = \beta 1(B.Li) + \beta 2(D.M.Li) +$$

$$\beta 3(A.Li) + \beta 4(S.Li.) + \in i\text{...........2}$$

Where:

ROA = return on asset, BL= budgeting literacy, DML= debt management literacy AL= accounting literacy, SL= saving literacy and ϵi= error term

Measurement of variables

The study employed a multi-panel linear regression model to elucidate the connection between financial literacy and the performance of medium-scale enterprises. The performance of medium-scale enterprises was evaluated as the dependent variable, quantified through return on assets (ROA). The independent variables incorporated in the model comprised budgeting literacy (BL), debt management literacy (DML), accounting literacy (AL), and saving literacy (SL).

Dependent variable

Return on asset

Return on assets is a financial metric that reflects a company's profitability about its total assets. This ratio serves as a valuable tool for corporate management, analysts, and investors to assess the efficiency with which a company utilizes its resources to generate profits. A high return on assets typically indicates strong basic earning power, while a low return suggests the opposite (Akinyi & Oima, 2019). Jewell & Mankin (2011) employed net income before tax about total assets as a proxy for return on assets. Consequently, this study adopted the ratio of net income to total assets as a measure of the performance of medium-scale enterprises in terms of return on assets.

Independent variable

Financial zliteracy

Financial literacy encompasses the cognitive comprehension of various financial elements and competencies, including budgeting, investing, borrowing, taxation, and personal financial management. It is a crucial skill that enables individuals to make informed financial choices, grasp the complexities of the financial landscape, and fulfill their responsibilities as informed citizens (Ansar, S. 2023). This research employed budgeting literacy, debt management literacy, accounting literacy, and saving literacy as indicators of financial literacy, utilizing a five-point Likert scale for measurement as indicated in Table 1 below.

Table 1: Variables and their measurement

Variables	*Symbols*	*Measurement*
Dependent variable (Medium scale enterprise performance)		
Return on asset	ROA	Net income to total asset
Independent variables (Financial literacy)		
Budgeting literacy	BL	Five-point liket scale
Debt management literacy	DML	Five-point liket scale
Accounting literacy	AL	Five-point liket scale
Saving literacy	SL	Five-point like scale

Source: Own design, 2024

Result and discussion

Descriptive statistics

Table 2 presented below outlines the descriptive statistics for the dependent variable, which is represented by the performance of medium-scale enterprises as measured by return on assets. The average return on assets for medium-scale enterprises is 0.16543, accompanied by a standard deviation of 0.08156. The return on assets ranges from a minimum of 0.0317 to a maximum of 0.2764. In terms of budgeting literacy, the mean is recorded at 3, with a standard deviation of 2.211, and the values range from a minimum of 1 to a maximum of 1.2142. For debt management literacy, the mean is 4, with a standard deviation of 2.24, and the values span from 1 to 1.313. The mean accounting literacy for medium-scale enterprises is 5, with a standard deviation of 2.14, and the range is from 1 to 1.214. Lastly, the mean saving literacy is 3, with a standard deviation of 2.02, and the values range from 1 to 1.121.

Correlation coefficient

Correlation analysis provides insights into both the direction and strength of the relationship between independent and dependent variables. If the dependent variable does not change while the independent variable increases or decreases, it indicates the absence of a linear relationship between the two (Mertens, 2010). To determine whether the relationship is positive or negative, the sign of the coefficient serves as a benchmark. The closer the coefficient to -1 or +1.0 indicates a strong relationship (Kubiszyn & Borich, 2013). In this study, Karl Pearson's coefficient of correlation was employed to assess the degree of association between the dependent variable, medium-scale enterprise performance as measured by return on assets, and the independent variables, financial literacy measured through budget literacy, debt management literacy, accounting literacy, and saving literacy. As illustrated in Table 3 below, budgeting literacy, debt management literacy, accounting literacy, and saving literacy exhibit positive correlations with medium-scale enterprise performance, with correlation coefficients of 0.573, 0.621, 0.589, and 0.621, respectively.

Table 2: Descriptive statistics

Variable	*Mean*	*Std. deviation*	*Min*	*Max*
ROA	0.16543	0.08156	0.0317	0.2764
BL	3	2.211	1	1.2142
DML	4	2.24	1	1.313
AL	5	2.14	1	1.214
SL	3	2.02	1	1.121

Source: STATA 14

Table 3: Correlation matrix

	ROA	*BL*	*DML*	*AL*	*SL*
ROA	1.00				
BL	0.573	1.00			
DML	0.621	0.698	1.00		
AL	0.589	0.569	0.574	1.00	
SL	0.621	0.567	0.542	0.543	1.00

Source: STATA 14

Test of Classical Linear Regression Model Assumptions

The mean of the disturbances is zero

The classical linear regression model is predicated on the assumption that the error terms have an average of zero, suggesting that the error term distribution should have an expected value of zero. Any error term with a non-zero average will impact the estimated coefficients. The presence of a constant term in the regression equation guarantees the preservation of this assumption, Brooks, C. (2008). As the model in this study contains a constant term, the assumption remains intact.

Normality test

To ascertain a suitable statistical test, it is essential to evaluate the normality of the data. This research employed the Shapiro-Wilk test for assessing data normality. The null hypothesis for this test posits that if the p-value is less than 0.05, the distribution of the residuals is not normal. Conversely, if the p-value exceeds 0.05, the distribution of the residuals is considered normal, leading to the rejection of the null hypothesis that the data are not normally distributed. In this instance, the p-value for the model presented in Table 4 below is 0.125, which is greater than 0.05. Therefore, the null hypothesis is rejected, indicating that the residuals exhibit a normal distribution pattern.

Multicollinearity test

Multicollinearity is defined as a condition where two or more explanatory variables in a multiple regression model exhibit a strong linear relationship. The underlying assumption regarding multicollinearity is that the explanatory variables should not be correlated with one another (Brooks, 2008). In this study, the extent of multicollinearity was evaluated using variance inflation factors (VIF). A VIF value of less than 10 suggests that multicollinearity is not an issue. Conversely, if the VIF exceeds this limit, it indicates a potential problem, complicating the assessment of the impact of independent variables on the dependent variable (Gujarati, 2004). As presented in Table 5, the VIF for all variables is significantly

Table 4: Shapiro-Wilk W test for normal data

Variable	*Obs*	*W*	*V*	*z*	*Prob>z*
Residual	212	0.684	1.765	1.054	0.1125

Source: STATA

Table 5: Degree of Multicollinearity for variables

Variable	*VIF*	*1/VIF*
BL	1.79	0.557641
DML	1.76	0.567176
AL	2.64	0.609678
SL	1.55	0.646588
Mean	1.69	

Source: STATA 14

below 10, and the reciprocal of VIF is considerably greater than 0.1, confirming that multicollinearity does not pose a problem in this study.

Heteroscedasticity test

The Breusch-Pagan test was employed to evaluate this assumption. It assesses the null hypothesis that the variance remains constant. The hypothesis posits that if the p-value is less than 0.05, there is an absence of constant variance or homoscedasticity; conversely, if the p-value exceeds 0.05, constant variance or homoscedasticity is present. In this case, the p-value is deemed insignificant ($p > 0.05$), leading the researcher to reject the null hypothesis. Consequently, Table 6 presents a probability value of 0.321, suggesting that heteroscedasticity does not pose an issue in this study.

Regression analysis of the study

The research employs multiple linear regression for its analysis. This method evaluates the extent and nature of the relationships between a dependent variable and several independent variables in an objective manner. In this study, the dependent variable is the return on assets. In contrast, the independent variables include budgeting literacy, debt management literacy, accounting literacy, and saving literacy, specifically in the context of medium-scale enterprises. Regression analysis is capable of quantifying the proportion of variation in the dependent variable that can be attributed to the independent variables, as indicated by the R-squared (R^2) value.

Table 6: Breusch-Pagan test for heteroscedasticity

Chi2 (1)	0.578
Prob> chi2	0.321

Source: STATA 14

Table 7: Regression results of the research model

Model	*Coefficient*	*Std. error*	*T- value*	*P-value*
Constant	-0.0567389	0.0134658	-1.36	0.000
BL	0.047689	0.0389823	3.56	0.032***
DML	0.001345	0.0023451	1,34	0.024**
AL	0.002357	0.0034579	3.34	0.000***
SL	0.002356	0.0023678	3.12	0.011***
Number of observations 212				
R- Square = 0.513				
Adjusted R Square = 0.501				

Source: STATA 14
Note: *** denote regression significant at 0.01 level (2-tailed). ** denote regression is significant at 0.05 level (2-tailed).

Discussions

The coefficient β^1 presented in Table 7 indicates that budgeting literacy has a positive correlation, as anticipated, with a p-value below the 0.05 significance threshold. This suggests that there exists a positive and significant relationship between budgeting literacy and the performance of medium-scale enterprises. Specifically, an increase of one unit in budgeting literacy corresponds to an enhancement of 0.047689 in medium-scale enterprise performance. Consequently, it can be concluded that the budgeting literacy of their owners influences the performance of medium-scale enterprises. This finding aligns with the research conducted by Mulani, Chi, and Yang (2015), which established a positive relationship between firm performance and the budgeting process. In this context, owners who possess greater financial literacy in budgeting tend to achieve higher performance levels, as budgeting literacy facilitates improved business outcomes by boosting sales and profitability through the establishment of performance targets (Patrick, 2015).

Furthermore, Kidwell and Turrisi (2004) demonstrated that budgeting literacy can alter individual spending behaviors by effectively managing finances, leading to reduced unnecessary expenditures and a more favorable approach to budget maintenance. Additionally, a positive correlation exists between financial control and business success, as noted by Mwaniki (2014) and Fatoki (2014). Warue Wanjira (2013) also emphasized that a lack of budgeting is a significant factor contributing to business failures.

The findings of the study indicate that a significant number of respondents demonstrated insufficient knowledge regarding effective budgeting practices. This deficiency may be attributed to the lack of formal training aimed at enhancing budgeting literacy among medium-scale enterprise owners in the Bench Shko zone. The results suggest that training enhances budgeting literacy. Furthermore, the analysis reveals a significant correlation between budgeting literacy and the financial performance of medium enterprises. Consequently, higher performance levels in medium-scale enterprises are associated with greater budgeting literacy, as effective budgeting serves as a tool for improved financial management and cost control, ultimately contributing to enhanced business performance. Nevertheless, the study's results show that most respondents lacked a comprehensive understanding of a proper budgeting plan that includes clearly defined financial objectives for their businesses. As a result, the study concludes that the performance of medium enterprises in the Bench Sheko zone is not satisfactory. Therefore, the study rejects the null hypothesis and accepts the alternative hypothesis, which posits that budgeting literacy has a positive and significant impact on the performance of medium-scale enterprises.

The coefficient $\hat{\beta}2$ indicates that debt management literacy exhibits a positive correlation, as anticipated, with a p-value below the 0.05 significance threshold. This suggests that debt management literacy has a positive and significant relationship with the performance of medium-scale enterprises. Specifically, an increase of one unit in debt management literacy is associated with an enhancement in medium-scale enterprise performance by 0.001345. Consequently, it can be concluded that debt management literacy influences the performance of medium-scale enterprises. This finding aligns with the research conducted by Addaney et al. (2016) and Lusimbo (2016), which demonstrated that effective debt management positively affects firm performance and that knowledge in this area contributes to the growth in asset value of enterprises.

The study's findings indicate that a significant number of respondents demonstrated a lack of debt management literacy, primarily due to insufficient financial education. Financial education serves as a vital mechanism for individuals to enhance their understanding of financial principles (Tariq, 2014). Furthermore, Taler (2013) posits that there is a strong correlation between financial literacy and higher education levels. Variations in financial knowledge among different educational groups suggest that financial literacy is closely linked to educational attainment. Notably, financial illiteracy is particularly pronounced among individuals without formal education (Abdeldayem, 2016). In this research, the observed deficiency in debt management literacy may be attributed to the fact that many medium-scale enterprise owners have not pursued higher education. Conversely, the study reveals a significant positive relationship between debt management literacy and the performance of medium-scale enterprises; however, it also highlights that most of these enterprises possess inadequate knowledge regarding debt management. Consequently, a lack of understanding in this area can lead to debt overhang, which currently poses a challenge for numerous enterprises, adversely affecting their operational health. This research demonstrates that the performance of medium-scale enterprises is significantly impacted by debt management literacy. A higher level of financial literacy related to debt management is associated with improved business performance. Thus, individuals equipped with the knowledge to effectively manage their debts are likely to achieve better financial outcomes in their business operations. As a result, this study rejects the null hypothesis and accepts the alternative hypothesis, confirming that the performance of medium-scale enterprises is positively and significantly influenced by debt management literacy.

The coefficient of $\hat{\beta}3$ indicates that accounting literacy has a positive correlation, as anticipated, with a p-value below the 0.01 significance threshold. This finding demonstrates that accounting literacy is positively and significantly related to the performance of medium-scale enterprises. Specifically, an increase of one unit in accounting literacy corresponds to an enhancement in medium-scale enterprise performance by 0.002357. This study's results align with the findings of Adekunle (2014), which highlight a strong link between the financial performance of medium-scale enterprises and the maintenance of comprehensive accounting records. Incomplete accounting records hinder entrepreneurs' ability to accurately calculate their business profits, as noted by Mutua (2015). Furthermore, inadequate record-keeping or the absence of financial documentation adversely impacts enterprise growth, as discussed by Dawuda and Azeko (2015). Consequently, it can be concluded that the accounting literacy of enterprise owners exerts a positive and significant influence on the performance of medium-scale enterprises. Therefore, the researcher rejects the null hypothesis in favor of the alternative hypothesis.

The findings of the study indicated that a significant number of medium-scale enterprises face challenges due to insufficient accounting knowledge. Most respondents lack the skills necessary for accurately recording daily transactions, preparing essential financial statements such as income statements and balance sheets, and conducting financial analyses of their business's financial documents. This deficiency is attributed to a lack of formal training in accounting practices. Proficiency in bookkeeping is a critical factor that positively influences the viability and growth of a business. Without comprehensive accounting records, business owners struggle to calculate their profits effectively (Mutua, 2015). Furthermore, neglecting to document financial transactions can lead to the failure of a business within a few months of its inception (Germain, 2009). Research by Adekunle (2014) and Butler (2009) demonstrates a strong correlation between the maintenance of accounting records and the performance of medium-scale enterprises. However, these findings contrast with those of Barbra (2011), who concluded that record-keeping practices can increase production costs, thereby adversely affecting the performance and growth of enterprises.

The regression analysis revealed that saving literacy exhibited a positive correlation, as anticipated, with a p-value below the 0.05 significance threshold. This suggests that saving literacy has a positive and significant relationship with the performance of medium-scale enterprises. Specifically, an increase of one unit in accounting literacy corresponds to an enhancement in medium-scale enterprise performance by 0.002356. These findings align with the research conducted by Kimunduu, Erick, and Shisia (2016), which demonstrated that personal saving skills are crucial for improving the profitability of medium enterprises. Nevertheless, the analysis indicates that a significant portion of respondents possess a low level of saving literacy. This deficiency is largely attributed to the age demographic, as most owners of medium-scale enterprises fall within the 18-30 age range. Chen and Volpe (2002) noted that individuals under the age of 30 tend to exhibit lower financial literacy compared to those aged 40 and above. Consequently, this study rejects the null hypothesis in favor of the alternative hypothesis.

Conclusion and policy implications

Conclusion

The study aimed to determine the impact of financial literacy on the performance of medium-scale enterprises. A descriptive and inferential research design was utilized for this investigation. The target population comprised 212 medium-scale enterprises located in the Bench Sheko zone. Respondents were selected through stratified random sampling across various sectors. Primary data were gathered using questionnaires, while secondary data were obtained from the financial statements of the enterprise owners. Descriptive analysis and multiple regression analysis were conducted to explore the relationship between financial literacy and the financial performance of medium-scale enterprises.

The finding indicated that budgeting literacy significantly and positively influences the performance of medium-scale enterprises in the Bench Sheko zone, as it helps reduce operational costs and minimizes unnecessary expenditures, thereby facilitating better resource utilization. Business owners who establish written objectives can effectively manage costs by monitoring excessive spending, as a written budget allows for a comparison between anticipated and actual expenditures. Furthermore, the study revealed a significant and positive correlation between budgeting literacy and the performance of medium-scale enterprises in the Bench Sheko zone. The positive association between debt management literacy and enterprise performance is attributed to its role in lowering costs associated with borrowed funds, particularly in terms of interest rates. This knowledge enables business owners to secure loans at minimal costs by evaluating the conditions and terms offered by financial institutions, as well as ensuring timely loan repayments to avoid penalties that could escalate business expenses. Additionally, understanding debt management assists in distinguishing between business and personal loans, preventing the misuse of business funds for personal expenses, which could adversely affect the financial health of the enterprise.

Moreover, the study found that accounting literacy has a significant and positive effect on the medium-scale enterprise performance in the Bench Sheko zone. The positive effect of accounting literacy indicates that decisions depend on information presented in financial statements without understanding and considering the information presented in financial statements; it is difficult to make important decisions; properly recorded business transactions, including separation of business and personal records, are inputs for preparation of complete financial statements. Consequently, incomplete or improper record-keeping leads to having a wrong picture of business operations.

Finally, the study found that saving literacy has a significant and positive effect on the medium-scale enterprise performance in the Bench Sheko zone. A business owner with good saving literacy could earn better performance as compared to owners with low saving literacy. saving would help owners in enhancing business's financial position by increasing their assets, and it could be used as a means of a source of finance in growing or expanding the business in the long run. In addition to that, since the future is unknown, the market environments change over time for different reasons; it is essential to keep reserve money for this uncertainty. Saving is vital not only for accumulating wealth but also it is important in reducing business reliance on debt. Consequently, the researcher concludes that saving literacy has a positive and significant effect on medium-scale enterprise performance. Thus, it is better if business owners have saving literacy.

Policy implications

The findings of the study indicate that the financial literacy levels among medium-scale enterprise owners in the Bench Sheko zone are insufficient to yield the necessary profits for their businesses, which in turn adversely impacts their overall performance. It is essential for both the government and the enterprise owners to prioritize the development of financial literacy. Consequently, it is crucial to recommend both corrective and supplementary measures to be implemented by medium-scale enterprise owners and the government to improve the financial literacy of business proprietors. The study's findings led to the formulation of the following recommendations.

- The government ought to implement training programs focused on financial matters for business owners, thereby fostering a well-informed and competitive entrepreneurial landscape.
- Additionally, business owners should demonstrate a willingness to participate in such training initiatives. Incorporating financial education into the educational curriculum is essential to educating medium-scale enterprise owners about financial matters at an early stage in their lives.

- Further research should be conducted that examines additional variables not addressed in this study.
- Furthermore, this research is limited to selected medium enterprises within the Bench Sheko zone, and the findings reflect only the perspectives of those business owners. Consequently, the researcher encourages future scholars to explore this topic among different business owners across various regions of the country.
- It is recommended that future researchers incorporate both financial and non-financial measures into their studies to gain a comprehensive understanding of the impact of financial literacy from multiple perspectives.

Acknowledgement

We want to thank all respondents from the medium-scale enterprise. We are endowed with the grace of almighty God for showering graceful drops on my future and instilling courage to cover the research journey with all success.

Conflict of interest

No potential conflict of interest was reported by the authors.

References

Abdeldayem, M. (2016). Is There a Relationship between Financial literacy and Investment Decisions in the Kingdom of Bahrain?. *Journal of Management and Accounting Studies*, 4(2), 68-78.

Abdullah, M. & Chong, R. (2014). Financial Literacy: An Exploratory Review of the Literature and Future Research. *Journal of Emerging Economies and Islamic Research,* 2 (3), 34-41.

Addaney, M., Awuah, S., & Afriyie, A. (2016). Debt management and the performance of small and medium enterprises. *Journal of Asian Business Strategy,* 6 (5), 101-112.

Adomako, S. & Danso, A. (2014). Regulatory environment, environmental dynamism, political ties, and performance: study of entrepreneurial firms in a developing economy. *Journal of Small Business and Enterprise Development,* 21 (2), 212-230.

Agyei, B. (2011). Financial management practices of small firms in Ghana: *African Journal of Business Management,* 5 (10), 3781-3793.

Akinyi, R. & Oima, D. (2019). Effect of firm size on financial performance of Sugar firms in western Kenya. *International Journal of Education and Research*, 7(9), 211-218.

Al-Sayaad, J., Rabea, A., & Samrah, A. (2006). Statistics for Economics and Administration Studies. Dar Hafez, Jeddah, Kingdom of Saudi Arabia.

Amoako, G. (2013). Accounting practices of SMEs: A case study of Kumasi Metropolis in Ghana. *International Journal of Business and Management,* 8 (24), 73-83.

Ansar, S., Klapper, L., & Singer, D. (2023). The importance of financial education for the effective use of formal financial services. *Journal of Financial Literacy and Wellbeing,* 1(1), 28–46.

Assibey, E. (2010). What Drives Behavioral Intention of Mobile Money Adoption? The Case of Ancient Susu Saving Operations in Ghana. *International Journal of Social Economics,* 42(11), 962-979.

Beal, D. & Delpachitra, S. (2003). Financial literacy among Australian university students, *Economic papers*, 22(1), 65-78.

Bosma, N. & Harding, R. (2006). Global entrepreneurship monitor. Founding and sponsoring institutions, London Business school, 1-31.

Brooks, C. (2008). Introductory econometrics for finance, 2nd. Press.

Brown, R., Saunders, M., & Beresford, R. (2006). You owe it to yourself: The financially literate manager, *Accounting Forum*, 30 (2), 179-191.

Bruhn, M. & Zia, B. (2011). Stimulating Managerial Capital in Emerging Markets: The Impact of Business and Financial Literacy for Young Entrepreneurs. Policy Research working paper ; no. WPS 5642 Washington, D.C.: World Bank.

Chamwada, V. (2015). The effect of financial literacy on financial performance of small and micro enterprises in Kenya. Nairobi University, Nairobi. *SSRN Electronic Journal,* 2(1), 1-25.

Chen, H. & Volpe, R. (1998). An analysis of personal financial literacy among college students. *Financial Services Review,* 7(2), 107–128.

Chepngetich, P. (2016). Effect of financial literacy and performance SMEs. Evidence from Kenya. *American based research journal,* 5 (11), 26-35.

Cooper, D., Pamela, S., & Schindler, P. (2014). Business research methods. *New York: McGraw Hill, Ink.*

Creswell, J. (2003). Research design: Qualitative, quantitative, and mixed method approaches.

Dawuda1, A. & Azeko, I. (2015). An Assessment of Financial Records Keeping Behavior of Small Scale Businesses in Ghana: A Case Study of Bolgatanga. *International Journal of Finance and Accounting,* 4 (3), 187-194.

Denscombe, M. (2010). The good research guide for small scale social research projects. *Fourth edition,* 1-373.

Donna, M. (2010). Research and evaluation in education and phycology book review 3rd edition. The quantitative report, 15(5), 1304-1305.

Drbie, M. & Kassahun, T. (2013). Deterrents to the Success of Micro and Small Enterprises in Akaki-Kality Sub-City.Evidence from Ethiopia. *Journal of Business and Administrative Studies,* 5 (2). 1-31.

Drexler, A., Fischer, G., & Schoar, A. (2014). Keeping It Simple : Financial Literacy and Rules of Thumb*, American Economic Journal,* 6 (2), 1–31.

Emmanuel, O. & Puke, O. (2015). Effects of debt usage on the performance of small scale manufacturing firms in Kogi state of Nigeria. *International Journal of Public Administration and Management Research,* 2 (5), 74-84.

Fatoki, O. (2014). *The Financial Literacy of Micro Entrepreneurs: the case for South Africa. Journal of social sciences,* 40(2), 151-158.

FDRE, (2011). The federal Democratic Republic of Ethiopia: Poverty Reduction Strategy Paper. *Growth and Transformation Plan 2010/11–2014/15.*

Fernandes, M.T (2015). Financial literacy levels of small businesses owners and it correlation with firms operating performance in Portugal. 1-72.

Gilchris, M. (2013). Influence of Bank Specific and Macroeconomic Factors on the Profitability of 25 Commercial Banks in Pakistan. *American Journal of Business and Finance,* 4(2), 117-126.

Githaiga, P. & Kabiru, C. (2015). Debt financing and financial performance of small and medium size enterprises: evidence from Kenya. *Journal of Economics, Finance & Accounting,* 2 (3), 473-481.

Glaser M., & Walther T. (2013). Run, Walk, or Buy? Financial Literacy, Dual-Process Theory, and Investment Behavior. *SSRN Electronic Journal,* 2(1), 1-73.

Gowri, M. & Sekar, M. (2015). A Study on Financial Literacy and its Determinants among Gen Y Employees in Coimbatore City. *Gyan Management Journal,* 9(1), 35-45.

Gujarati, D. N. (2004). Basic Econometrics, 4rd edition. *McGraw-Hill.*

Habtamu, T., Aregawi, G., & Nigus, A. (2013). Growth Determinants of micro and Small Enterprises: Evidence from Northern Ethiopia. *Journal of Economics and Sustainable Development,* 4(9), 128-135.

Hall, K. (2008). The importance of financial literacy. Speech on importance of financial literacy. *Journal of Financial Literacy and Wellbeing*, 1(1) 11-18.

Hilgert, M., Hogarth, J., & Beverly, S. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin,* Board of Governors of the Federal Reserve System, 309-322.

Huston, S. (2010). Measuring Financial Literacy. *Journal of Consumer Affairs,* 44, (2), 296-316.

Ibrahim, A. (2017). The impact of financial literacy on the profitability of micro and small enterprises owned by university students in Kenya. United states International University- Africa, 1-61.

Jayantilal, D. (2017). The effect of financial literacy on personal finance management. Evidence from employees of Bank of Baroda, Kenya. *The strategic Journal of Business and Change Management*, 6(3), 28-44.

Jewell, J. & Mankin, J. (2011). What is your ROA? An investigation of the many formulas for calculating Return on assets. *Academy of Educational Leadership Journal, 15*(1), 79-91.

Kailanya, M. (2014). The effect of financial literacy on financial returns of Miraa farmers in Meru county. 1-70.

Kalekye, N. & Memba, F. (2013). The Role of Financial Literacy on the Profitability of Women Owned Enterprises of Kitui Town: Evidence from Kenya. *International Journal of Science and Research,* 4 (6), 2360-2365.

Kamunge, M., Njeru, A., & Tirimba, O. (2014). Factors Affecting the Performance of Small and Micro Enterprises in Limuru Town Market of Kiambu County, Kenya. *International Journal of Scientific and Research Publications,* 4(12).1-20.

Kidwell, B. & Turrisi, R. (2004. An examination of college student money management tendencies*, Journal of Economic Psychology,* 25(5), 601–616.

Kimani, S. (2014).The role of financial literacy in personal financial decisions: case of balozisacco members. 1-69.

Kimunduu, G., Erick, O., & Shisia, A. (2016). A study on the influence of financial literacy on financial performance of small and medium enterprises in Kenya. *International Journal of Economics, Commerce and Management,* 4(11), 416-433.

Kothari, C. (2004). Research methodology: Methods and techniques. *New Delhi: New Age International Ltd*

Kotze, M. & Smit, A. (2008). Personal financial literacy and personal debt management: the potential relationship with new venture creation. *The Southern African Journal of Entrepreneurship and Small Business Management,* 1*(1).35-50*

Kubiszyn, T. & Borich, G. (2013). Educational testing and measurement: classroom application and practice. 1-888.

Lusardi, A. (2008). Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs. *National bureau of economic research*, 1-46

Lusardi, A. & Mitchell, O. (2008). How much do people know about economics and finance: financial illiteracy and the importance of financial education? Promoting research on retirement, disability, and Social Security policy, 1-5.

Lusimbo, E. (2016). Relationship between financial literacy and the growth of micro and small enterprises in kenya: a case of kakamega central sub- county. Jomo Kenyatta University of Agricultural & Technology, 1-99.

Mandell, L. (2008). Financial Literacy of High School Students. Hand book of consumer finance research, 163-183.

Marcolin, S & Abraham A. (2006). Financial literacy research: current literature and future opportunities. *3rd International Conference of Contemporary Business,* 1-10.

Maseko, N. & Manyani, O. (2011). Accounting practices of SMEs in Zimbabwe: An investigative study of record keeping for performance measurement: A case study of Bindura. *Journal of Accounting and Taxation* 3(8), 171-181.

Massimo, C. & Ornella, R. (2012). The relationship between everyday practices and financial literacy. *SSRN Electronic Journal*, 19 (1), 1-15.

Mian, T. (2014). Examining the level of financial literacy among Saudi Investors and its impact on Financial Decisions. *International Journal of Accounting and Financial. 4 (2), 312-328.*

Miller, M., Godfrey N,, Levesque, B., and Stark, E. (2009). The case for financial literacy in developing countries: Promoting access to finance by empowering consumers. World Bank, DFID,OECD, and CGAP joint note, Washington, DC: World Bank.

MoTI, (1997). The Ethiopian Ministry of Trade and Industry. Addis Ababa, Ethiopia.

Muhammad, I. & Ejaz, G. (2010). Expenditure-Growth Nexus : Does the Source of Finance Matter ? Empirical Evidence from Selected South Asian Countries. *Pakistan Development Review, 49(4), 631-640.*

Muijs, D. (2004). Doing quantitative research in Education with SPSS. *SAGE Publications, Ltd,* 1-20.

Musie, L. (2015). The use of financial literacy concepts by entrepreneurs in the small and medium enterprise sector in Mpumalanga province. *University of Pretoria.*

Mutua, R. (2016). Impact of credit risk management on financial performance of savings and credit co-operative societies in Kitui County.1-61.

Mwaniki, S. (2014). Influence of financial literacy training on financial performance of women self-help groups: a case of equity Bank customers, isiolo branch, Kenya, 1-106

Mwithiga, E. (2016). Financial literacy and enterprise performance among owner-managed ICT SMEs in Nairobi County. United states International University Africa, 1-76.

Njiru B. (2012). The effect of cost of credit on the financial performance of commercial dairy small and medium enterprises: the case for Kiambu. 1-63.

Njoroge, R. (2013). Relationship between financial literacy and entrepreneurial success in Nairobi county Kenya. University of Nairobi Research Archive, 1-37.

Pallant, J. (2007). SPSS Survival Manual (3rd ed.). England: Open University Press.

Patrick, C. (2015). The effect of financial literacy on performance of small and medium enterprises in Trans Nzoia Country .University of Nairobi. *International Journal of Research in Business Studies and Management, 6(11), 33-39.*

Pearl, D. & Eileen, R. (2014). Financial Literacy and the Success of Small Businesses: An Observation from a Small Business Development Center. *Numeracy,* 7(1).1-11

Remund, D. (2010). Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *Journal of Consumer Affairs*, 44, 276-295.

Robson, J. & Ladner, S. (2006). Asset-based approaches to settlement services in Canada. Discussion paper, SEDI.

SantaloJ. & Becerra M. (2008). Competition from Specialized Firms and the Diversification–Performance Linkage. *The Journal of Finance, 63(2), 851–883.*

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students, 5th edition.

Shiferaw, D. (2013). Socio-economic Contributions of Micro and Small Enterprises: The Case of Jimma City. *Technology and Arts Research Journal, 2 (2), 123-134.*

Siekei, J. (2013). An assessment of the role of financial literacy on performance of small and micro enterprises. Case of Equity Group Foundation Training Program on SMES in Njoro district, Kenya. *Journal of Economics and Finance*, 1(7), 250-261.

Stango, V, & Zinman, J. (2007). Fuzzy Math, Disclosure Regulation and Credit Market Outcomes Studies.Dar Hafez, Jeddah, Kingdom of Saudi Arabia. *SSRN-Electronic-Journal*, 24(2), 1-40.

Sucuahi, A. (2013). Determinants of financial literacy on micro enterprises in Philippines. *International Journal of Accounting Research, 1(1), 44-51.*

Tarfasa, S., Ferede, T., Kebede, S., & Behailu, D. (2016). Determinants of growth of micro and small enterprises (MSEs): Empirical evidence from Ethiopia. Swiss Agency for Development and Cooperation and the Swiss National Science Foundation under the Swiss Programe for Research on Global Issues for Development, 1-29.

Taylor, S. & Wagland, S. (2013). The Solution to the Financial Literacy Problem: What is the Answer? *Australasian Accounting, Business and Finance Journal, 7(3), 69-90.*

Van M., Lusardi A., & Alessie M. (2007). Financial Literacy and Stock Market Participation. Nber working paper series, 1-46.

Wachira & Kihiu (2012). Impact of Financial Literacy on Access to Financial Services in Kenya. *International. Journal of Business and Social Science,* 3(19).42-50.

Warue, B. & Wanjira, T. (2013). Assessing budgeting process in small and medium enterprises in Nairobi central business district: A case of Hospitality industry. *International Journal of Information Technology and Business Management, 17 (1), 1-11*

Wood, E. (2006). The internal predictors of business performance in small firms. *Journal of Small Business and Enterprise Development*. 13 (3), 441-452

Worthington, A. (2004). Debt as a Source of Financial Stress in Australian Households*" International Journal of Consumer Studies,* 3 (2), 201 – 222

Yamane, T. (1967). Statistics 2nd edition, New work. Hayper and Row.