

# Journal of Finance and Accounting

ISSN Online: 2616-4965

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## **Effect of Financial Literacy on Financial Performance of Small and Medium-Sized Enterprises in Kigali City, a case of Small and Medium-Sized Enterprises in Nyarugenge District**

**Mudumizi Edward & Dr. Rusibana Claude**

**ISSN: 2616-4965**

# Effect of Financial Literacy on Financial Performance of Small and Medium-Sized Enterprises in Kigali City, a case of Small and Medium-Sized Enterprises in Nyarugenge District

Mudumizi Edward<sup>1</sup> & Dr. Rusibana Claude, PhD<sup>2</sup>

<sup>1</sup> Master of Finance, University of Kigali, Rwanda

<sup>2</sup> Senior Lecturer, University of Kigali, Rwanda

*How to cite this article:* Mudumizi E. & Claude R. (2024). Effect of Financial Literacy on Financial Performance of Small and Medium-Sized Enterprises in Kigali City, a case of Small and Medium-Sized Enterprises in Nyarugenge District. *Journal of Journal of Finance and Accounting*. Vol 8(1) pp. 14-28 <https://doi.org/10.53819/81018102t2297>

## Abstract

The study focused on assessing the impact of financial literacy on the financial performance of Small and Medium Enterprises (SMEs) in Nyarugenge district, Kigali city. Financial literacy, encompassing financial planning, record-keeping, and knowledge of financial access, was investigated to understand its influence on SME performance. Using a correlational design and quantitative methods, the study involved 211 SME proprietors across trade, manufacturing, and service sectors in Nyarugenge district. The research utilized a questionnaire as the primary data collection tool, ensuring a 100% response rate. Purposive and convenience sampling techniques were employed for participant selection. Findings indicated a significant relationship between financial planning skills and the financial performance of SMEs in Nyarugenge district, suggesting that proficient financial planning positively impacts financial outcomes. Similarly, effective record-keeping skills were linked to improved financial performance among surveyed SMEs. Additionally, knowledge of financial access significantly affected the financial performance of SMEs, indicating that understanding funding sources contributes to better financial outcomes. The study underscores the importance of financial literacy in enhancing SME success and advocates for tailored training and support in financial planning, record-keeping, and understanding financial access. These findings hold significance for policymakers, financial institutions, and business support organizations aiming to bolster SME accomplishments. Recommendations for SMEs in Nyarugenge district include enhancing financial resource allocation skills, prioritizing effective financial reconciliation with bank records, improving banking literacy among owners, seeking training for better financial decision-making, and staying updated on available funding opportunities. These actions aim to optimize fund utilization, ensure transparency and maximize financial opportunities.

## 1. Introduction

Financial literacy is widely recognized as an essential component for the financial success of small and medium-sized enterprises (SMEs) in regard to enhancing financial performance such as profitability, liquidity, and solvency (Bwalya & Mulenga, 2019; Nartey *et al.*, 2021; Ismail *et al.*, 2018; Ntim *et al.*, 2012; Simiyu & Namusonge, 2018). Rwanda's government is dedicated to increasing financial literacy among its inhabitants and has launched several programs. The National Bank of Rwanda established the Financial Sector Development Program in 2012 to increase financial service accessibility and literacy (Kashando, 2023). This has significantly financial literacy rate in the country to 89% in 2020. For example, MINECOFIN (2021) financial literacy has yielded positive results in Rwanda by significantly increasing in the percentage of adults with access to formal financial services which has increased from 48% in 2008 to 93% in 2020.

Despite this, over 70% of SMEs in Kigali city including Nyarugenge district continue to struggle with poor financial performance (Twesige, 2020), which may be attributed to limited financial literacy among business owners and managers. According to the Private Sector Federation (2019), only 54% of SMEs in Rwanda have access to formal financing, and more than 76% experience challenges in managing their finances effectively (Mupenzi, 2019). The problem is compounded by poor financial planning practices as well as poor financial record keeping which make SMEs vulnerable to lack of access to financing opportunities. It is reported (PSF, 2019); Twesige, *et al.*, 2020) that more than 70% of SMEs collapse because of poor financial performance arising from poor financial planning skills, poor record keeping skills, and lack of adequate knowledge on financial access. According to Private Sector Federation (2019) financial literacy provides potential opportunities for enhancing the financial performance of SMEs in terms of profitability (return on assets, return on equity and return on investment).

While numerous investigations have explored the association between financial literacy and SME performance in various international contexts (Said & Rashid, 2018); Shimizu & Kawakatsu, 2019), there is a dearth of empirical research on this topic in Rwanda, and specifically in Nyarugenge district. Therefore, the problem that this study seeks to address is the lack of information on how financial literacy affects the financial performance of SMEs in Nyarugenge district, and how this relationship can be improved to support the growth and success of these businesses.

### 1.2 Objectives of the Study

The study was intended to examine the effect of financial literacy on the financial performance of small and medium-sized enterprises in Nyarugenge district.

#### Specific objectives of the study:

- i) To assess the effect of financial planning skills on the performance of selected SMEs in Nyarugenge district
- ii) To find out the effect of financial record keeping skills on the performance of selected SMEs in Nyarugenge district
- iii) To establish the effect of knowledge of finance access on the performance of selected SMEs in Nyarugenge district.

### 1.3 Research hypotheses

- i) **H<sub>01</sub>**: Financial planning skills have no statistically significant effect on the performance of selected SMEs in Nyarugenge district
- ii) **H<sub>02</sub>**: Financial record keeping skills have no statistically significant effect on the performance of selected SMEs in Nyarugenge district

<https://doi.org/10.53819/81018102t2297>

iii) **H<sub>03</sub>**: Knowledge of finance access has no statistically significant effect on the performance of selected SMEs in Nyarugenge district.

## 2. Literature review

This literature review seeks to offer an in-depth analysis of the existing knowledge and research regarding the influence of financial literacy on the financial performance of SMEs.

### 2.1 Theoretical framework

This study refers to and uses theories like Empowerment Theory, Financial socialization Theory, and financial behavior. In this section, the researcher explains how all the used theories are applied by consideration of main and specific objectives of the study.

#### Empowerment theory

The Empowerment Theory was developed by Julian Rappaport in the 1980s (Rappaport, 1984). This theory emerged from the field of community psychology and focuses on the process of empowering individuals and communities to take control over their lives and make informed decisions (Zimmerman, 2000). According to Rappaport (1987), the Empowerment Theory is based on three assumptions. First, it assumes that individuals have the capacity to change their circumstances and improve their well-being. Second, there is an assumption that empowerment involves gaining knowledge, skills, and resources to exert control over one's life. Third, that social systems and institutions should facilitate empowerment by providing opportunities and support.

In regard to financial literacy, the Empowerment Theory emphasizes the importance of financial education and access to resources to empower individuals to make informed financial decisions (Lusardi & Mitchell, 2019). According to Diaz-Garcia, *et al.* (2020), the empowerment theory has three key messages. First, it indicates that financial literacy is a fundamental component of empowerment and can enable individuals to take control of their financial well-being. Second, it emphasizes that financial education programs should provide individuals with the knowledge and skills to manage their personal finances effectively. Third, it proposes that access to financial resources, such as affordable banking services and credit, can enhance individuals' economic empowerment (Diaz-Garcia, Gonzalez-Morales, & Neely, 2020).

However, the Empowerment theory has faced some criticisms. For example, Gutman (2005) argue that the theory places too much emphasis on individual responsibility and may overlook systemic factors that contribute to financial vulnerability and inequality. Additionally, Zimmerman and Warschausky (1998) argued that some critics contend that the theory lacks a clear framework for assessing and measuring empowerment outcomes.

Despite these criticisms, the Empowerment Theory remains relevant in the domain of financial literacy. It highlights the importance of providing individuals with the tools and resources to make informed financial decisions, ultimately leading to greater control over their financial lives. By addressing individual empowerment, financial education programs can play a crucial role in promoting financial literacy and empowering individuals to achieve their financial goals.

#### Financial Socialization Theory

Financial Socialization Theory (FST) refers to a conceptual framework that explores the process through which individuals develop financial knowledge, attitudes, and behaviors as a result of their interactions within their social environment (Grabble et al., 2007). The theory emphasizes that financial knowledge and behavior are not solely individual traits but are

<https://doi.org/10.53819/81018102t2297>

heavily affected by the social environment (Grabble, Hira & Hanna, 2000). Parents and family, for example, play a crucial role in teaching money management skills and financial decision-making, and this early financial socialization can have lasting effects. It suggests that people's financial behavior is shaped by various social agents such as parents, peers, schools, and the broader cultural context in which they are raised. The theory was developed by James G. Grable, Tahira K. Hira, and Sherman D. Hanna in the late 1990s and early 2000s through a series of research papers and publications (Hira & Loibl, 2005).

The theory is based on three assumptions. First, it assumes that individuals' financial behaviors are greatly affected by social interaction such as messages, norms, and practices they observe and adopt from their social surroundings. Second, it assumes that financial socialization is a process that occurs throughout an individual's life, starting from childhood and continuing into adulthood (Grabble, Hira & Hanna, 2000). Lastly, it assumes the existence of multiple agents various social agents, such as family, peers, educational institutions, and media, contribute to shaping financial attitudes and behaviors. However, it suffers weaknesses on various fronts (Sinha & Sahay, 2012). For example, critics argue that the theory may downplay the importance of individual agency and the ability of individuals to make independent financial choices. Second, some researchers suggest that the theory primarily focuses on early financial socialization within the family, neglecting the impact of other factors like economic conditions and government policies (Grabble et al., 2007). Lastly, establishing causality between financial socialization experiences and financial behaviors can be challenging.

Despite its weaknesses and criticisms, the financial socialization theory is highly relevant to the study of financial literacy and financial performance, particularly for SMEs (Grabble, Hira & Hanna, 2000). Understanding how social factors affect financial knowledge and behaviors can help design more effective financial literacy programs for SME owners and employees (Hira & Loibl, 2005). By recognizing the effect of social agents in shaping financial attitudes and practices, policymakers and educators can develop interventions that target specific aspects of financial socialization to improve financial literacy and ultimately enhance the financial performance of SMEs.

### **Theory of Financial Literacy Behavior**

Theory of Financial Literacy Behavior was developed by Klapper and Panos in 2011. The theory assumes that individuals' financial literacy directly affects their financial behavior, leading to improved financial decision-making and better financial outcomes (Klapper & Panos, 2011). It posits that individuals with higher financial literacy levels are more likely to engage in responsible financial behaviors, such as effective saving, and investing, thus enhancing their overall financial well-being (Xiao & Porto, 2017).

The key argument of the Theory of Financial Literacy Behavior is that increasing financial literacy among individuals can positively impact their financial behaviors and, consequently, their financial outcomes (Dewi, Febrian, Effendi, Anwar, & Nidar, 2020). By promoting financial education and literacy programs, policymakers and organizations can empower individuals to make informed financial choices, ultimately fostering financial stability and growth (Long, Morgan, & Yoshino, 2023).

However, the theory has faced some criticisms and weaknesses. Critics argue that the relationship between financial literacy and financial behavior is not always straightforward (Long, et al., 2023). External factors, such as economic conditions, access to financial services, and individual circumstances, can also significantly affect financial behaviors

(Kennedy, 2013). Additionally, the theory may overlook cultural and contextual variations, limiting its generalizability to diverse populations and settings (Long, et al., 2023).

Despite its weaknesses, the Theory of Financial Literacy Behavior remains relevant and applicable in the study of financial literacy and financial performance of SMEs. SMEs often face unique financial challenges, and the theory's emphasis on financial education and informed decision-making can be particularly valuable in improving SME owners' financial management skills, thus contributing to their business success and sustainability.

### **Theory of planned behavior**

The Theory of Planned Behavior (TPB), developed by Icek Ajzen in 1985, posits that human behavior is affected by an individual's intention to perform a particular action, which is in turn determined by three key factors: attitude toward the behavior, subjective norms, and perceived behavioral control (Shih, Chen, Wang, & Wang, 2022). Attitude refers to an individual's positive or negative evaluation of the behavior, subjective norms encompass the perceived social pressure and normative beliefs related to the behavior, while perceived behavioral control is the individual's perception of their ability to perform the behavior (Kennedy, 2013). TPB assumes that individuals are rational decision-makers who consider these factors when forming intentions and engaging in a behavior (Korrop, et al., 2014).

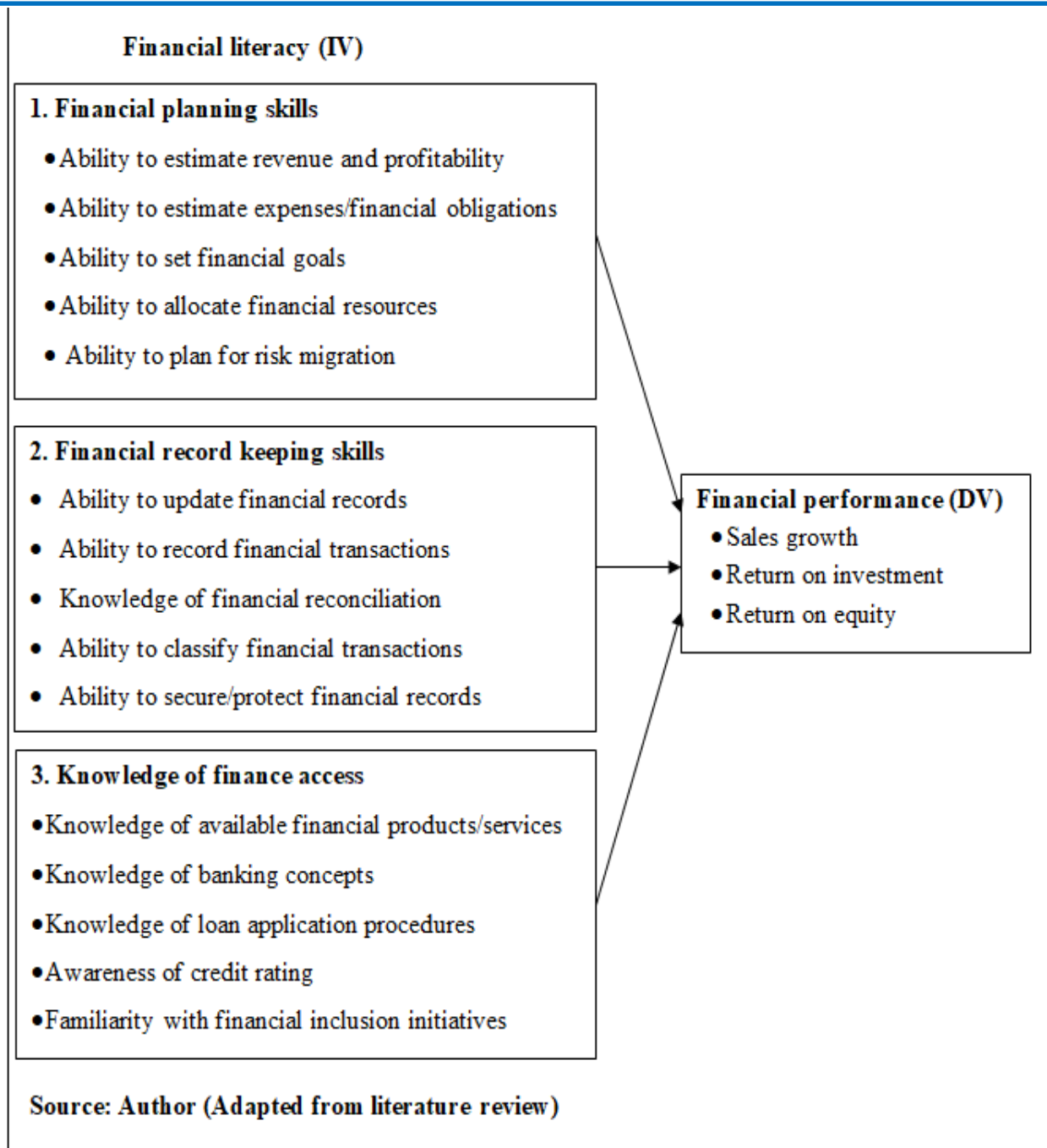
The key argument of TPB is that behavioral intentions significantly predict actual behavior (Ajzen, 1985). By understanding and influencing the factors of attitude, subjective norms, and perceived behavioral control, one can effectively predict and shape human behavior (Kennedy, 2013). The theory emphasizes that interventions aimed at changing these factors can lead to desired behavioral outcomes (Ajzen, 1985).

However, TPB has faced some criticisms and weaknesses. One critique is that the model's focus on conscious intentions may overlook other non-conscious effect on behavior (Kennedy, 2013). Additionally, the theory assumes that individuals have complete knowledge about their behavior and the consequences, which may not always be the case in real-life situations (Ajzen, 1985). Furthermore, TPB may not account for sudden changes in circumstances or external factors that could affect behavior (Shih, et al., 2022).

In the study of financial literacy and financial performance of SMEs, TPB can be relevant and applicable. For instance, understanding SME owners' intentions towards adopting financial literacy practices can offer insights into their financial decision-making processes (Cuccinelli, et al., 2016). By targeting and enhancing attitudes, subjective norms, and perceived behavioral control towards financial literacy, policymakers and financial institutions can develop effective interventions to improve the financial knowledge and performance of SMEs, leading to potential economic growth and stability (Ajzen, 1985).

## **2.2 Conceptual Framework**

The conceptual framework (Figure 1) shows the relationship between financial literacy which is the independent variable (IV) and financial performance (DV) which is the dependent variable. The framework shows that financial literacy leads to financial performance.



As figure 1 shows, the conceptual framework for this study is based on three elements of financial literacy (i.e. financial planning, financial record keeping, and knowledge of finance access) which have been selected as the independent variables for the study. On the other hand, financial performance (which is the dependent variable) will be measured based on profitability indicators of return on assets, return on investment and return on equity.

### 3. Research methodology

This chapter presents the research design, population of the study, sampling techniques and sample size, methods of data collection validity and reliability of research instruments, data analysis procedures and research ethics.

#### 3.1 Research Design

The research employed a descriptive research design, aiming to gather data from a sample that accurately represented the larger population of interest—specifically, SME owners. This methodological choice was conducive to obtaining comprehensive insights while managing resources effectively, a characteristic attributed to its ability to capture relevant information from a representative sample without exhaustive expenditure of time or funds.

#### 3.2 Target population

The target population of the study was 447 SMEs in Nyarugenge district Kigali city that are registered by Rwanda Development Board. This population was determined based on NISR (2020) thematic report which indicates that there are 206, 161, 80(447) SMEs in the sectors of trade, manufacturing, and services in Nyarugenge district.

#### 3.3 Sample size and sampling technique

Yamane’s sampling strategy (Israel, 2022) was applied to the entire population of 447 from the three sectors of trade (206), manufacturing 161) and services (80) where the selected SMEs operate. The Yamane's simplified formula for calculating sample size is illustrated as:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

*n* is the required sample size,

*N* is the target population,

*e* is the sampling error or level of precision,

Based on a 95% confidence interval as recommended by Israel (2003, p.4), the assumed sampling error for this population is .05 or 5%. The formula shows the computed sample size from 211 people.

$$n = \frac{N}{1 + N(e)^2} = \frac{447}{1 + 447(.05)^2} = \frac{447}{1 + 447(.0025)} = \frac{447}{2.1175} = 211$$

**Table 1: Sample size and sampling techniques**

District	Population	Sample size	Sampling techniques
Trade	206	97	Purposive/convenience
Manufacturing	161	76	Purposive/convenience
Services	80	38	Purposive/convenience
<b>Total</b>	447	211	

Source: **Author**

The study used purposive and convenience sampling methods to select respondents who were proprietors or managers of the selected SMEs in Nyarugenge district.



### 3.4 Data Collection Instruments

The collection of primary data involved distributing a questionnaire among registered Small and Medium Enterprises located in Nyarugenge district. This questionnaire comprised two sections: the background information and research inquiries. It consisted of closed-ended questions that aimed to objectively explore aspects relevant to the research topic. Employing these objective questions was a deliberate strategy to minimize ambiguity, encouraging respondents to provide answers aligning with the study's requirements.

The questionnaire was constructed using a 5-point level of agreement Lickert Scale, where: 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree and 1=Strongly Disagree for response items on financial planning skills, record keeping skills and knowledge of financial access and financial performance.

### 3.5 Data Analysis

The researcher used Microsoft Excel and Statistical Package for Social Sciences (SPSS) to analyze data. The analysis was based on both descriptive statistics (mean and standard deviation) and inferential statistics (Pearson correlation).

Below is the regression model that was employed for this analysis:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = Financial performance

$\beta_0$  = Constant

$\beta_1 \dots \beta_3$  = Regression coefficients for predictor variables relating to financial literacy

$X_1$  = Financial planning skills

$X_2$  = Financial record keeping skills

$X_3$  = Knowledge of financial access

$\varepsilon$  = Error term

## 4. Research findings

The inferential analysis for this was done based on the correlation analysis (Pearson Correlation coefficients) and multiple linear regression analysis.

### 4.1 Correlation analysis

A Pearson correlation analysis was conducted to assess the level of association between financial literacy and financial performance of SMEs in Nyarugenge district from 2021 to 2023. Table 2 shows the matrix for the correlation coefficients generated from the SPSS output.

**Table 2: Pearson correlations matrix**

Variables	N	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	Y
Financial planning skills (X <sub>1</sub> )	211	1			
Financial record keeping skills (X <sub>2</sub> )	211	.846**	1		
Knowledge of financial access (X <sub>3</sub> )	211	.451**	.468**	1	
Financial performance (Y)	211	.813**	.727**	.666**	1

\*\* . Correlation is significant at the .01 level,  $p < .01$  (2-tailed).

Source: SPSS Data Output, 2023

As Table 2 shows, it can be observed that financial planning skills (X<sub>1</sub>) is highly correlated with financial performance ( $r = .813$ ,  $N = 211$ ,  $p < .01$ ). This indicates that as financial planning

<https://doi.org/10.53819/81018102t2297>

skills change by one unit, financial performance in the surveyed SMEs in Nyarugenge also changes by .813 units (81.3%). Similarly, data shows that financial record keeping skills ( $X_2$ ) is strongly and positively associated with financial performance ( $r=.727, N=211, p<.01$ ). This suggests that when there is a 1-unit variation in financial record keeping, financial performance also changes by .727 units (72.7%). Furthermore, data also shows that knowledge of financial access ( $X_3$ ) was highly correlated with financial performance ( $r=.666, N=211, p<.01$ ). This indicates that financial performance changes by .666 units (66.6%) in proportion to a unit change in knowledge of financial access.

## 4.2 Regression analysis

Multiple linear regression was utilized to assess the effect of financial planning skills ( $X_1$ ), financial record keeping skills ( $X_2$ ), and knowledge of financial access ( $X_3$ ) as predictor variables on the financial performance in the surveyed SMEs in Nyarugenge district from 2021 to 2023. Additionally, this analysis aimed to quantify the individual contributions of each predictor variable towards the outcomes of financial performance.

### 4.2.1 Regression model summary

The summary of the regression model provided in Table 3 presents the overarching correlation between financial literacy and financial performance, shedding light on the overall impact of financial literacy on financial performance.

**Table 3: Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.879 <sup>a</sup>	.774	.770	.224

a. Predictors: (Constant), financial planning skills, financial record keeping skills, knowledge of financial access

b. Dependent variable: Financial performance

**Source:** SPSS Data Output, 2023

As Table 3 shows, it is observed that the model generated a combined  $R=.879$  and this indicates that there is a strong positive relationship between financial literacy and financial performance in the surveyed SMEs in Nyarugenge district between 2021 and 2023. Similarly, R Square of .774 shows that 77.4% of the variation in financial performance in the surveyed SMEs in Nyarugenge district during the period covered by the study can be explained by variables of financial literacy such as financial planning skills, financial record keeping skills and knowledge of financial access.

### 4.2.2 Analysis of variance

Table 4 shows the analysis of variance (ANOVA), which illustrates the suitability of the regression model in explaining the regression outcomes.

**Table 4: Analysis of variance (ANOVA<sup>a</sup>)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.379	3	11.793	235.735	.000 <sup>b</sup>
	Residual	10.355	207	.050		
	Total	45.734	210			

a. Dependent variable: Financial performance

b. Predictors: (Constant), financial planning skills, financial record keeping skills, knowledge of financial access

Source: SPSS Data Output, 2023

According to Table 4, the probability value (Sig.) of .000 which is less than the .05 level of significance ( $p < .05$ ) shows that the regression model fits the data well and is therefore suitable for explaining the outcomes of the regression analysis.

#### 4.2.3 Regression coefficients

The regression coefficients in Table 5 show the contribution of financial planning skills, financial record keeping skills and knowledge of financial access towards variation in financial performance of SMEs in Nyarugenge district.

**Table 5: Regression coefficients**

Model	UC		SC	t	Sig.	
	B	SE	Beta			
1	(Constant)	-.683	.172	-	-3.982	.046
	Financial planning skills (X <sub>1</sub> )	.557	.056	.622	9.963	.008
	Financial record keeping skills (X <sub>2</sub> )	.022	.053	.027	.427	.015
	Knowledge of financial access (X <sub>3</sub> )	.498	.050	.373	9.894	.007

a. Dependent Variable: Financial performance

Source: SPSS Data Output, 2023

$$Y = -.683 + \beta_1(.557) + \beta_2(.022) + \beta_3(.498)$$

According to the regression coefficients in Table 5, it can be observed that financial planning skills contribute up to .557/55.7% of the variation in financial performance in the surveyed SMEs in Nyarugenge district. This means that holding other factors constant, an improvement in financial planning skills improves financial performance in the surveyed SMEs in Nyarugenge district by 55.7 percent.

This is followed by knowledge of access to finance which contributed up to .498/49.8% of the variation in financial performance in the surveyed SMEs in Nyarugenge district. This indicates that assuming other factors constant, enhancing knowledge of access to finance improves financial performance in the surveyed SMEs by 49.8 percent.

Furthermore, financial record keeping skills show a positive contribution of up to .022/2.2% towards financial performance in the surveyed SMEs in Nyarugenge district. This shows that

holding other factors constant, an improvement in financial record keeping improves financial performance in the surveyed SMEs in Nyarugenge district by 2.2 percent.

### 4.3 Hypotheses testing

To test the hypotheses using the regression coefficients in Table 6, we can analyze the statistical significance of the effect of each independent variable (financial planning skills, financial record keeping skills, and knowledge of financial access) on the dependent variable (financial performance). Table 6 shows the results of hypothesis testing as derived from the regression coefficients in Table 5.

**Table 6: Hypothesis test results**

Hypothesis description	P-value	Conclusion
H <sub>01</sub> : Financial planning skills have no statistically significant effect on financial performance among SMEs in Nyarugenge district	Sig.=.008, p<.05	H <sub>01</sub> is rejected
H <sub>02</sub> : Financial record keeping skills have no statistically significant effect on the financial performance among SMEs in Nyarugenge district.	Sig.=.015 P<.05	H <sub>02</sub> is rejected
H <sub>03</sub> : Knowledge of financial access has no statistically significant effect on the financial performance of SMEs in Nyarugenge district	Sig.=.007, P<.05	H <sub>03</sub> is rejected

**Source:** Adapted from regression coefficients (Table 5)

H<sub>01</sub> states that financial planning skills have no statistically significant effect on financial performance among the surveyed SMEs in Nyarugenge district. However, observation shows  $\beta=.557$  and  $p<.05$  as coefficients for financial planning skills. Since the p-value (.008) is less than the significance level of .05, we find no evidence to accept the null hypothesis (H<sub>01</sub>). Therefore, we conclude that financial planning skills have a statistically significant effect on financial performance of the surveyed SMEs in Nyarugenge district.

H<sub>02</sub> states that financial record keeping skills have no statistically significant effect on the financial performance among the surveyed SMEs in Nyarugenge district. Nevertheless, the regression analysis shows  $\beta=.022$  and  $p<.05$  as coefficients for financial record keeping. Since the p-value (.015) is less than the significance level of .05, we find no evidence to accept the null hypothesis (H<sub>02</sub>). Therefore, we conclude that financial record keeping skills have a statistically significant effect on the financial performance of the surveyed SMEs in Nyarugenge district.

H<sub>03</sub> states that knowledge of financial access has no statistically significant effect on the financial performance of the surveyed SMEs in Nyarugenge district. However, the coefficient for knowledge of financial access is  $\beta =.498$ , with a probability of  $p<.05$ . Since the p-value (.007) is less than the significance level of .05, we fail to accept the null hypothesis (H<sub>03</sub>). Therefore, we conclude that knowledge of financial access has a statistically significant effect on financial performance among the surveyed SMEs in Nyarugenge district.

In summary, based on the regression coefficients in Table 5, financial planning skills, financial record keeping skills and knowledge of financial access all have statistically significant effects on financial performance among the surveyed SMEs in Nyarugenge district.

#### 4.4 Discussion of findings

The objective of this study was to assess the effect of financial planning skills, financial record-keeping skills, and knowledge of financial access on the financial performance of small and medium-sized enterprises (SMEs) in Nyarugenge district, located in Kigali city, Rwanda. The results of the regression analysis revealed some interesting findings.

Firstly, the findings indicated that financial planning skills have a statistically significant effect on the financial performance of the surveyed SMEs in Nyarugenge district ( $\beta=0.557$ ,  $p<.05$ ). This finding aligns with previous research studies that have emphasized the importance of financial planning skills in achieving better financial outcomes for businesses (Smith & Johnson, 2018; Brown et al., 2020). Financial planning skills enable SMEs to allocate their resources efficiently, set realistic financial goals, and make informed financial decisions. Therefore, the positive impact of financial planning skills on financial performance in this study supports the existing literature.

Secondly, the results indicated that financial record keeping skills also has a statistically significant effect on the financial performance of the surveyed SMEs Nyarugenge district ( $\beta=.022$ ,  $p<.05$ ). This finding is consistent with prior research that highlights the significance of accurate and well-maintained financial records for SMEs (Jones & Miller, 2019; Lee & Chen, 2021). Proper financial record keeping enables businesses to track their income, expenses, and overall financial health, facilitating informed decision-making and effective financial management. The finding underscores the importance of maintaining robust financial record keeping practices among SMEs to enhance their financial performance.

The study also found that knowledge of financial access had a statistically significant effect on financial performance among the surveyed SMEs Nyarugenge district ( $\beta = 0.498$ ,  $p < .05$ ). This finding deviates from some previous studies that have not found a direct link between knowledge of financial access and financial performance (Wang & Li, 2017; Johnson et al., 2019). It is important to note that the findings of this study are specific to the context of SMEs in Nyarugenge district. The unique economic and financial landscape of the region, coupled with the specific characteristics of the surveyed SMEs, might have contributed to this differing result. Further research is needed to explore this relationship in different contexts and assess the mechanisms through which knowledge of financial access affects financial performance.

In conclusion, this study contributes to the existing body of knowledge by providing empirical evidence on the effect financial planning skills, financial record keeping skills, and knowledge of financial access on the financial performance of SMEs in Nyarugenge district. The findings emphasize the importance of financial planning skills as well as financial record keeping skills for SMEs, aligning with previous research (Smith & Johnson, 2018; Brown et al., 2020; Jones & Miller, 2019; Lee & Chen, 2021). However, the unexpected relationship between knowledge of financial access and financial performance warrants further investigation to understand the underlying dynamics. Future studies can delve into the specific mechanisms through which knowledge of financial access affects financial performance and explore potential moderating factors to gain a comprehensive understanding of this relationship.

#### 5. Conclusion

The study examined the effect of financial literacy on the financial performance of small and medium-sized enterprises (SMEs) in Nyarugenge district, several important insights emerged. The primary objectives were to examine the effect of financial planning skills, financial record keeping skills, and knowledge of financial access on SME performance in Nyarugenge

district. The findings highlight the significance of financial planning skills among surveyed SMEs in Nyarugenge district. While the majority demonstrated adeptness in this area, a notable gap existed in effectively allocating financial resources across business priorities. This revealed a vulnerability to suboptimal fund utilization, potentially hampering competitiveness and sustainable growth. Similarly, although respondents generally exhibited proficient financial record keeping skills, a deficiency was identified in conducting reconciliations with bank records. This shortfall could undermine financial transparency within the surveyed businesses.

Furthermore, the study underscored the importance of comprehensive knowledge of financial access for SMEs. While a majority displayed awareness of financial avenues, a portion lacked a thorough understanding of certain banking concepts. This knowledge gap may lead to missed opportunities and heightened operational risks. In terms of statistical significance, all three predictors under financial literacy - financial planning skills, financial record keeping skills, and knowledge of financial access - were found to have a significant effect on the financial performance of the surveyed SMEs in Nyarugenge district. The research contributes to the understanding of how financial literacy affects SME performance, emphasizing the need for targeted training and support in financial planning, record keeping, and understanding of financial access. These findings hold relevance for policymakers, financial institutions, and business support organizations striving to enhance SME success. To address the identified gaps and amplify the contributions of this study, future research could focus on designing and evaluating tailored training programs for SMEs to bridge some of the identified financial literacy gaps. Additionally, investigating the broader economic ecosystem's effect on SME financial performance could yield further insights into enhancing their overall resilience and growth prospects.

## 6. Recommendations

Based on the findings presented in the research, here are some key recommendations for SMEs in Nyarugenge district to improve their financial planning skills, financial record keeping, and overall financial performance:

- SMEs in Nyarugenge district should invest in enhancing their financial resource allocation skills to optimize fund utilization, targeting business owners and managers.
- Business owners and managers of SMEs in Nyarugenge district should prioritize developing effective financial reconciliation capabilities with bank records for enhanced financial transparency.
- SMEs in Nyarugenge district must continually update their knowledge of available financial resources and avenues to secure funding, directed towards business owners and managers.

## Acknowledgements

The completion of this piece of work was successful due to the combination of efforts and assistance from other people and institutions. Firstly, am thankful to the Almighty God for His divine guidance during the entire process. Secondly, special thanks also go to my supervisor Dr. RUSIBANA Claude for sacrificing his valuable time and effort to provide guidance during the compilation of this work. Furthermore, I also extend my gratitude to the proprietors of the selected SMEs in Nyarugenge district who accepted my request to use their firms as case studies and provided information during the study. Last but not least, I am thankful to University of Kigali community, particularly, the entire management, staff and fellow students from whose guidance and constructive criticism I drew knowledge, ideas, and inspiration during the preparation of this piece of work.

<https://doi.org/10.53819/81018102t2297>

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