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Effectiveness of Financial Literacy and Financial Inclusion on Competitiveness of Small and Medium Sized Enterprises in Uganda: The Mediating Role of Financial Planning

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ABSTRACT:

Purpose: This study examines the mediating role of financial planning on the relationship between financial literacy and financial inclusion on the competitiveness of small and medium-sized enterprises (SMEs) Uganda.

Design/methodology/approach: A correlational design with a quantitative approach was used. A self-administered closed-ended questionnaire was distributed to 384 managers of SMEs in the Kampala Central Business area, selected through disproportionate stratified and simple random sampling; 281 usable responses were obtained (73.2%). Data were analysed in STATA using Pearson correlation and regression analysis and mediation was tested using the Baron and Kenny (1986) conditions through generating a Sobel z-value using a MedGraph**.**

Findings: Both financial literacy ($\beta = 0.509$) and financial inclusion ($\beta = 0.361$) have a positive and significant effect on SMEs competitiveness. Both effects are fully mediated by financial planning, which accounts for 89.39% of the effect of financial literacy and 70.4% of the effect of financial inclusion.

Practical implications: Government and private sector financial institutions should integrate financial literacy and financial inclusion activities that strengthen financial planning, equipping SME managers with the knowledge and technical skills needed for proper budgeting and investment decisions.

Originality/value: Grounded in the Resource-Based View (RBV) theory, the study provides evidence from Uganda that financial literacy and financial inclusion enhance SMEs competitiveness through financial planning.

KEYWORDS: Financial literacy, Financial inclusion, Financial planning, Competitiveness, Small and medium-sized enterprises, Uganda

1. INTRODUCTION

Small and Medium enterprises play a significant role in economic growth and development of both developed and developing economies and are critical drivers of most economies through wealth creation and employment generation (Goncalves, Ferreira, Ferreira & Farinha, 2018). Managers of Small and medium enterprises (SMEs) have a vital role they play in improving their competitiveness which lead to job and wealth creation, and resource mobilization for investment (Le Chi Cong &Dao Anh Thu, 2020). Because of the role SMEs play, they need to remain competitive through product and process innovations, market share and profitability. To be competitive, SMEs need to carryout out clear financial plans on acquisition and use of financial resources. However, this is enhanced by financial literacy and financial inclusion.

Financial literacy provides knowledge and financial skills necessary for SMEs to access and use financial resources to improve performance. It occurs when an individual has a set of skills and abilities to be able to utilize existing financial resources (Amram, Heni & Maria, 2018). It is also regarded as individual's ability and skills to understand various aspects of finance such as insurance, debt management, investment and savings (Silalahi et al., 2024). Financial literacy is regarded as a vital driver of inclusive participation (Matovu, *et al.,* 2026). Therefore, SMEs with a strong understanding of financial products and services make informed decisions to improve financial planning which finally leads to business competitiveness. To compete favorably, SMEs also need to be financially inclusive through access and effective use of financial

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resources. For SMEs, financial inclusion involves expanding access to banking services which include improving the quality of savings and investments hence enhancing competitiveness.

Globally, for SMEs, competitiveness is associated with product innovation and it enables customers to expand market share and improve quality of products and services (Goncalves, Ferreira, Ferreira & Farinha, 2018). To achieve competitiveness, SMEs require proper financial planning which also helps them to reduce effects of higher credit constraints (Basha, Bennasr & Goaied, 2023). In addition, financial decisions made by SMEs to enhance their competitiveness are appropriate, effective and efficient is they have financial knowledge, understanding and implementing well financial planning, identifying and mitigating financial and business risks (Nayati, Dwi Wulandari, Santi Merlinda, & Vidya Purnamasari, 2025)

In Uganda, Small enterprises employee 5-49 people with total assets of Uganda shillings 10 million to 100 million while Medium enterprises employ 50-100 people with total assets of more than Uganda Shillings 100 million but less than Uganda shilling 360 million (The State of Entrepreneurship Report,2024). The report further states that Micro, Small and Medium Enterprises (MSMEs) form the cornerstone of Uganda's economy comprising approximately 90% of the private sector, generating over 80% of manufactured products and contributing about 75% of the Gross Domestic Product (GDP). However, despite the critical role played by SMEs in Uganda, their competitiveness in terms of sustainable growth, market share and profitability remains a challenge (Kisubi et.al, 2022).

The study therefore aims at establishing the mediation role of financial planning on the effect of financial literacy and financial inclusion on competitiveness of small and medium enterprises in Uganda. It was guided by the following objectives: To establish the relationship between financial literacy and competitiveness of SMEs in Uganda; to establish the relationship between financial inclusion and competitiveness of SMEs in Uganda; to establish the mediation role of financial planning on the effect of financial literacy on competitiveness of SMEs in Uganda; to establish the mediation role of financial planning on the effect of financial inclusion on competitiveness of SMEs in Uganda. The research question was why small and medium enterprises in Uganda and Particularly Kampala, fail in their first year of operations despite various financial inclusion and literacy Initiatives by the Government and private sector to enhance their competitiveness.

2. LITERATURE AND THEORETICAL REVIEW

2.1 Resource-Based View (RBV) theory

The study is based on the Resource-Based View (RBV) theory which was first proposed in 1984 by Wernfelt Birger and further developed and refined by Jay B. Barney in 1991. The theory postulates that a firm's management and efficient use of its scarce resources provides a competitive advantage over its rivals (Barney, 1991). Sustainability of competitiveness of SMEs requires efficient use of available financial resources. Therefore, financial literacy and inclusion aid SMEs to access and use financial resources efficiently to enhance their competitiveness. Financial literacy defined as the ability to make informed judgments and sensible financial choices (Beal & Delpachitra, 2003), is regarded as a unique resource (Hidayat-ur-Rehman, 2025) that strongly influences competitiveness of SMEs by facilitating informed financial plans such as budgeting, savings and investments choices and enhancing the firm's competitiveness.

In the realm of financial literacy and financial inclusion for SME owners, researchers have utilized the RBV paradigm to examine how the knowledge about effective use of financial resources, such as financial literacy, affect enterprises' financial plans and their resulting performance. For instance, Siddik et al. (2023) identified financial literacy, and access to financial resources are crucial determinants of firm's long-term success. This is attributable to financial literacy's capacity to mitigate financial obstacles associated with the intricacies of use of financial resources through financial inclusion. Jad & Helmi (2022) highlighted that financial literacy is an essential strategic asset that enables proficient maneuvering through intricate financial planning landscapes and regulatory environments in the digital age. In addition, Mutamimah and Indriastuti (2023) and Hidayat-ur-Rehman (2025) adopted the RBV model to elucidate the role of financial literacy and inclusion in augmenting financial plans, financial performance, expansion and success of small and medium-sized companies (SMEs). These studies demonstrated how RBV is vital in examining how financial literacy and financial inclusion influence the way firms make their financial plans which ultimately lead to firms' competitiveness.

2.2 Empirical evidence

2.2.1Financial literacy, planning and competitiveness of SMEs

According to Ruscitarasi, Nurcahyanti & Wibisosono (2022) Financial literacy and financial planning are positively related. The development of a financial plan helps to explain all future business activities which are articulated in financial terms and it stands as a benchmark for organizations to measure performance and competitiveness. The level of financial literacy depends on the ability of managers to read, plan, manage, analyze and control finances such as financial communication through establishing the need for funds for business processes and decision-making. The financial skills and knowledge guide managers of SMEs to carry out well financial planning activities which include budgeting and investment decision making. Financial planning and control systems are useful to business managers to clarify activities that enhance their competitiveness.

Financial strategic planning is a process of planning long-range financial objectives and aligning budgets, forecasts and investment decisions to strategies of the firm to enhance its competitiveness through profitability, sustainable innovations, market share and growth (Jehu & Enoch, 2025). Financial planning comprises predicting future financial needs and making sure that funds are available at the right time in the right way and at minimal cost. Competitiveness is measured in various ways such as profitability, increased market share, innovation capacity resilience and stability. According to Soejono, Martinez- Gonzalo & Sri Mendari (2025), financial literacy has a positive significant effect on financial planning and behavior through making financial decisions on diversification of investments.

Financial planning is a process carried out to direct and allocate financial resources to meet strategic goals and objectives. The output from financial planning takes the form of budgets, savings and investment plans. Financial planning is vital for SMEs with multitude of cash inflows and outflows that must be efficiently managed in order to meet payment obligations and to maintain adequate business stability (Akumu, Abuga & Baraza, 2022). Financial planning is a process of planning long-range financial objectives and aligning budgets, forecasts and investment

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decisions to strategies of the firm to enhance its competitiveness through profitability, sustainable innovations, market share and growth (Makoni, Obodai & Laryea, 2025). Financial planning comprises predicting future financial needs and making sure that funds are available at the right time in the right way and at minimal cost. Low levels of financial literacy are correlated with ineffective financial planning, expensive borrowing and lapses in debt management (Ghimire et al., 2023). People with financial literacy understand the role of financial planning (Mustafa, et al, 2023).

2.2.2 Financial Inclusion, planning and competitiveness of SMEs

Financial inclusion entails access, availability and utilization of financial resources. This enables SMEs to obtain financial services that empowers them to enhance their financial resilience and achieve long term sustainability (Mishra & Choudhury, 2025). Financial inclusion is vital for the progression and expansion of SMEs. However, despite their substantial contribution to economic growth in developing economies, formal financial institutions, such as banks often limit their access to financial resources (Okello Chandiya Bongomin *et.al.*, 2025). This hinders their financial capacity to achieve competitiveness and sustainable growth. Furthermore, Amadasun & Mutezo, (2022) assert that compared to large enterprises, SMEs face intense competitive disadvantages in accessing financial information needed to access adequate credit from banks due to the nature of their businesses. Access and use of financial resources helps SMEs to make clear financial plans concerning savings and investments which ultimately enhances their competitiveness. Financial inclusion enhances the ability of SMEs to access affordable financing options, facilitating savings and investments in technology, human capital, market and revenue growth. Recent studies emphasize that access to financial services such as credit, insurance, and digital payments help micro-enterprises to manage risks, save, invest in their businesses, and increase resilience (Adeosun et al., 2023; Nik Azman et al., 2024)

Financial inclusion enables the SMEs to gain access to financial products and services such as savings, credit, insurance, and digital payments that can enhance their economic capacity. Previous studies have shown that financial inclusion can stimulate the growth of micro, small, and medium enterprises (MSMEs) increase business income, and strengthen their economic resilience against financial shocks (Mahaitin & Djuli, 2025). With this, financial planning is necessary as it plays a crucial role in managing financial resources effectively and efficiently. Good financial planning helps SMEs to save, and invest to achieve short-term and long-term competitiveness in profitability and revenue growth.

2.1 Identified gaps and hypotheses

In Uganda, Small enterprises employee 5-49 people with total assets of Uganda shillings 10 million to 100 million while medium enterprises employ 50-100 people with total assets of more than Uganda Shillings 100 million but less than Uganda shilling 360 million (The State of Entrepreneurship Report,2024). The report further states that Micro, Small and Medium Enterprises (MSMEs) form the cornerstone of Uganda's economy comprising approximately 90% of the private sector, generating over 80% of manufactured products and contributing about 75% of the Gross Domestic Product (GDP). However, despite the critical role played by SMEs in Uganda, their competitiveness in terms of sustainable growth, market share and profitability remains a challenge (Kisubi et.al, 2022).

In addition to that, the study focused on establishing the mediation role of financial planning on the effect of financial literacy and financial inclusion on competitiveness of small and medium enterprises in Uganda.

To address these gaps, the following hypotheses are tested;

H_1: Financial literacy has a positive significant effect on competitiveness of Small and Medium Enterprise in Uganda.

H_2: Financial Inclusion has a positive significant effect on competitiveness of Small and Medium Enterprises in Uganda.

H_3: Financial planning has a positive significant effect on competitiveness of Small and Medium Enterprises in Uganda.

H_4: There is a positive significant relationship between financial literacy and financial planning for Small and Medium Enterprises in Uganda.

H_5: There is a positive significant relationship between Financial inclusion and financial planning for Small and Medium Enterprises in Uganda.

H_6: Financial planning mediates the relationship between financial literacy and competitiveness of Small and Medium Enterprises in Uganda.

H_7: Financial planning mediates the relationship between financial inclusion and competitiveness of Small and Medium Enterprises in Uganda.

3.Methodology

Research design, population and sample

The study was descriptive and correlational using a quantitative approach (Baranger et al., 2023), with a population of 869,848 mangers of registered SMEs in Kampala central business area (Uganda investment authority Report, 2024). The study targeted managers of SMEs operating in various sectors such as trade, hotel, medical, education, saloon, restaurants and Manufacturing in Kampala Central Business area. A Sample selection of 384 was carried out using stratified sampling and simple random sampling technique. Data were collected using a self- administered closed-ended questionnaire designed based on research objectives. Questions were structured using a 5 point- Likert scale ranging from Strongly disagree (1), disagree (2), not sure (3), agree (4) and strongly agree (5).

The dependent variable is competitiveness of SMEs while independent variables were financial literacy and financial inclusion. The mediating variable is financial planning. For the independent variables, the measures of financial literacy are knowledge and technical skills while measures of financial inclusion are access and use of financial resources. For Financial planning, the measures are budgeting and investments. The data collection instrument was first tested for reliability through obtaining Cronbach alpha coefficients and composite reliability coefficients before data collection. Data Analysis was carried out through first coding the responses and then using the STATA software tool for analysis to generate descriptive and inferential statistics.

Reliability of data collection instruments

Reliability measures the degree to which a research instrument yields consistent results after repeated trials (Fuller et al., 2020). Reliability of the questionnaire was assessed using Cronbach's alpha coefficient and composite reliability

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Table 1: Reliability of the research items

Study variables	Cronbach's Alpha	Composite Reliability
Access	0.8239	0.8527
Usage	0.8734	0.8845
Financial Inclusion	0.9023	0.9132
knowledge	0.8868	0.8924
Technical skills	0.8828	0.8891
Financial literacy	0.9319	0.9416
Financial planning	0.8657	0.8729
Competition	0.8257	0.8348

Source: Authors own work

Consistent with Habor (2013) and Creswell (2014), results from table 1 show that Cronbach alpha coefficients and coefficients of composite reliability exceed 0.7 threshold, indicating good internal consistency. This shows that the data collection instrument is reliable.

Sample characteristics

Questionnaires were distributed to 384 respondents but only 281 filled questionnaires were collected resulting into a response rate of 73.2%.

Table 2: Demographic characteristics

Details	Number	percentage
Gender		
Male	160	57
Female	121	43
Total	281	100
Age of respondents		
18-40 years	180	64
Above 40 years	101	36
Total	281	100
Nature of the enterprise		
Manufacturing	29	10.3
Trade (retail and wholesale)	108	38.4
Business services (Saloon and Information and communication technology)	65	23.2
Medical services	7	2.5
Financial services (Banking, insurance and Saccos)	40	14.2
Education services	9	3.2
Hotel and Restaurants	23	8.2
Total	281	100.0
Number of years in the enterprise		
Less than 1 years	86	30.6
1-5 years	142	50.5
6-10 years	40	14.3
More than 10 years	13	4.6
Total	281	100.0
Number of employees		
5-49 employees	230	81.8
50-99 employees	51	18.2
Total	281	100
Education Level		
Master's degree	5	1.8
Bachelor's degree	43	15.3
Diploma and professional qualifications	65	23.1
Advanced level	111	39.5
Ordinary level	57	20.3
Total	281	100

Source: Authors own work

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Results indicate that most respondents were male (57%) and 64% of the respondents were within the age bracket of (18–40 years). This is a productive age for the managers to engage in activities that enhance competitiveness of their enterprises. About qualifications; (79.7%) of the respondents had completed Advanced level of education and above. This indicates that they had formal education hence, capable of engaging in financial inclusion and literacy activities. Results further reveal that majority of the enterprises had been in existence for 1-5 years (50.5%) and those that had existed for less than one year were 30.6%. Only 18.9% of the enterprises had existed for more than 5 years. This indicates that the rate of business failure is high and only few enterprises remain in operation after 5 years.

4. RESULTS

Normality using descriptive statistics, Kolmogogorov-smirnov and Shapiro-wilk tests

This is important to help check the statistical methods of analysis to adopt and whether there's a need for data transformation. Parametric t-test are only used when data is normally distributed.

Table 3: Descriptive statistics

Variable	N	Min	Max	Mean	SD	Skewness		Kurtosis	
	Stat	Stat	Stat	Stat	Stat	Stat	SE	Stat	SE
SMEs Competitiveness	281	1.571	5	3.7367	0.5596	-0.1746	0.1461	3.1275	0.2922
Financial Planning	281	1.429	5	3.4626	0.7654	-0.572	0.1461	2.9737	0.2922
Financial Literacy	281	1.529	5	3.5125	0.698	-0.5621	0.1461	3.2575	0.2922
Financial Inclusion	281	1.333	4.917	3.1074	0.7937	0.0198	0.1461	2.4932	0.2922

Source: Authors own work

The results reveal that data were fairly normally distrusted based on the results of skewness and kurtosis. This is supported by the studies made by Suleyman (2022), Hair et al. (2010) and Kline (2011) that heavily skewed data have skewness of ±3 and kurtosis of ±7.

Table 4: Kolmogogorov-smirnov and Shapiro-wilk tests

Variables	**Kolmogorov-Smirnov**			**Shapiro-wilk**		
	Stat	**df**	**Sig.**	**Stat**	**Df.**	**Sig.**
SMEs competitiveness	0.101	281	0.056	0.982	281	0.101
Financial Planning	0.133	281	0.054	0.962	281	0.432
Financial Literacy	0.090	281	0.319	0.969	281	0.342
Financial Inclusion	0.044	281	0.619	0.990	281	0.053

Source: Authors own work

The data is considered normally distributed if the P-values from the Kolmogorov-Smirnov and Shapiro-Wilk tests are greater than 0.05. The results show that the data were normally distributed ($p > 0.05$) for the Shapiro-Wilk and the Kolmogorov-Smirnov tests and therefore use of parametric t-tests in data analysis was appropriate.

4.2 Correlation Analysis

Table 5: Pearson's Correlations analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) access	1.000							
(2) usage	.729***	1.000						
(3) Financial inclusion	.942***	.916***	1.000					
(4) knowledge	.568**	.606**	.629**	1.000				
(5) skill	.403**	.486**	.474**	.784***	1.000			
(6) Financial literacy	.518**	.580**	.587**	.949***	.940***	1.000		
(7) planning	.400**	.401**	.430**	.701***	.746***	.765***	1.000	
(8) Competitiveness	.374*	.291**	.361**	.461**	.503**	.509**	.637**	1.000

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

Source: Author's own work

Results reveal a significant positive relationship between financial inclusion and competitiveness of SMEs ($r = 0.361$, $p<0.05$). This implies that as managers of SMEs increasingly access and use financial resources, the competitiveness of their enterprises in terms of profits, revenue growth and retention of customers increases. Furthermore, the relationship between financial literacy and competitiveness of SMEs is positive and significant ($r = 0.509$, $p <0.05$). There's also a positive significant relationship between financial inclusion and financial planning ($r = 0.430$, $p<0.05$) and a positive significant relationship between financial literacy and financial planning ($r = 0.765$, $p <0.01$). The results are supported by

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a study by Angung and Chandra (2020) that financial literacy leads to good financial planning in terms of savings. The relationship between financial planning and competitiveness of SMEs is also positive and significant (r = 0.637, p <0.05).

4.3 Regression analysis, Mediation and discussion of findings.

The regression analysis helps to establish the statistical significance of the effect of one variable on another. For mediation, full mediation relationship occurs when the resulting independent variable on a dependent variable beta weight falls to non- significance, in conjunction with significance t- score. Thus, according to Firiba *etal*. (2012), the indirect to total ratios of above 50% can be obtained from full mediation. A partial mediation relationship occurs when the independent variable on a dependent variable beta weight is still large, in conjunction with a significant t-score. In addition, a no mediation relationship occurs when the sobel's t-score is not significant.

4.3.1 Mediation of Financial planning on the effect of financial literacy on SMEs competitiveness.

Mediation effect of Financial Planning in the relationship between financial literacy and competitiveness of SMEs in Uganda is described using information in table 6 and figure 1 below.

Table 6: Mediation analysis results – Financial literacy and SMEs competitiveness

Significance of Mediation				Significant
Sobel z-value			7.668927	p = < 0.000001
95% Symmetrical Confidence Interval				
	Lower		0.27209	
	Upper		0.45892	
Unstandardized indirect effect				
	a*b		0.36551	
	se		0.04766	
Effect size Measures				
	Standardized Coefficients			R^2 Measures (Variance)
	Total:	0.509		0.259
	Direct:	0.053		2.019
	Indirect:	0.455		0.257
	Indirect to Total Ratio:	0.895		0.992

Source: Authors own work

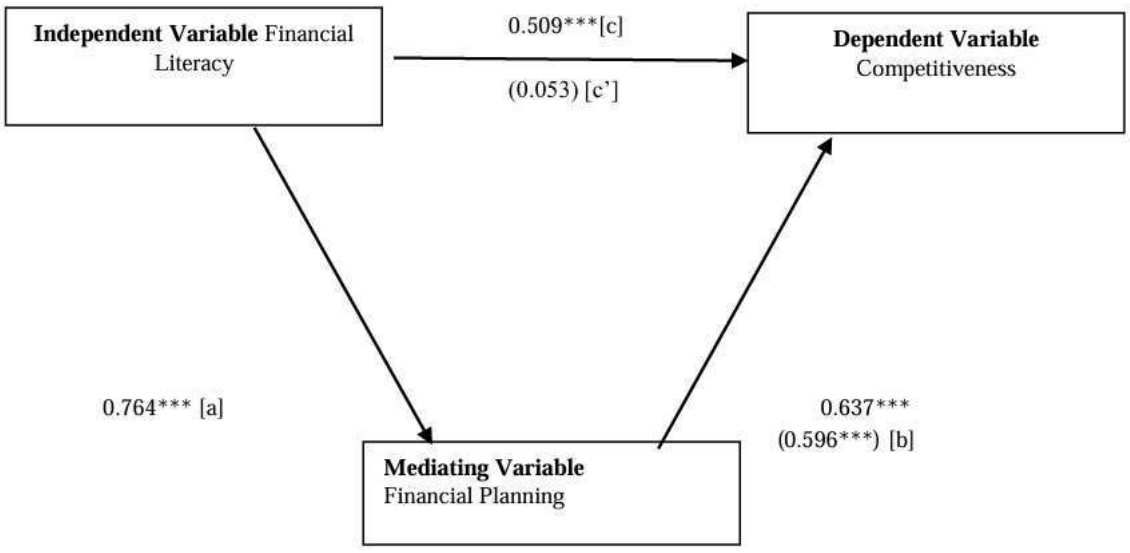


Figure 1: Medgraph showing the mediation of financial planning in the effect of financial literacy on SMEs competitiveness.
Source: Author's own work

To understand the mediating role of financial planning in the relationship between financial literacy and SMEs competitiveness, the results were presented using the two models by conserving the following conditions; a). Financial literacy has a significant effect on SMEs competitiveness, b). Financial planning and SMEs competitiveness are positively related, c). The effect of financial literacy on SMEs competitiveness is mediated by financial planning. The medgraph gives a sobel z-value of 7.668927, p<0.000001 which indicate that the mediation is significant. Furthermore, in testing whether financial planning mediates the relationship between financial literacy and SMEs competitiveness in Uganda, Baron and Kenny (1986)'s conditions for testing mediation were considered and satisfied. Specifically, financial literacy accounts for a significant proportion of change in SMEs competitiveness (β = 0.509, p< 0.01). The hypothesis (H_1) is supported. Similarly, financial literacy accounts for a significant proportion of change in financial planning (β = 0.764, p<0.01). The results support the hypothesis (H_4) and are consistent with findings by Ghimire et al. (2023) that financial literacy creates awareness which acts as a driving force behind effective financial

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planning. This empowers managers to make decisions, align their financial goals to achieve sustainable enterprise competitiveness. Relatedly, consistent with hypothesis (H_3), financial planning accounts for a significant proportion of change in SMEs competitiveness ($\beta = 0.596$, $p<0.01$). Finally, the absolute effect of financial literacy on SMEs competitiveness reduced from ($\beta = 0.509$) to ($\beta = 0.053$). Thus, all conditions have been satisfied, thereby confirming that financial planning mediates the relationship between financial literacy and SMEs competitiveness in Uganda.

After satisfying Baron and Kenny (1986) condition, further analysis was conducted to test the significance of the mediation effect. This was achieved through generating a Sobel z-value using a MedGraph. Study results in Table 6 (MedGraph) show a large and significant Sobel z-value ($z = 7.668927$, $p=<0.000001$). The table indicates that when financial planning is introduced, the standardized beta (β) for the association between financial literacy and SMEs competitiveness deceases from $\beta = 0.509$ to $\beta =0.053$. And, since the association between financial literacy and SMEs competitiveness is not significant after the introduction of the mediator, it suggests that a full mediation exists. A ratio index (i.e. indirect effect/total effect) of 89.39% given by (0.455/0.509*100) was calculated. This shows that 89.39% of the effect of financial literacy goes through financial planning while the 10.61% is a direct effect as indicated in Table 6. To sum up, the total effect of financial literacy on SMEs competitiveness through financial planning ($\beta = 0.637$, $p = 0.000$) is higher that total direct effect ($\beta = 0.509$, $p = 0.000$). The results are supported by Ismanto et al. (2022) that financial planning and control systems are useful for helping business managers to clarify financial activities that enhance performance of companies.

4.3.2 Mediation of financial planning on the effect of financial inclusion on SMEs competitiveness.

The results describing the mediating role of financial planning in the effect of financial inclusion on SMEs competitiveness are presented in table 7 and figure 2 below:

Table 7: Mediation analysis results – Financial inclusion and SMEs competitiveness

Significance of Mediation				Significant
Sobel z-value			6.570968	$p = < 0.000001$
95% Symmetrical Confidence Interval				
	Lower		0.12586	
	Upper		0.23286	
Unstandardized indirect effect				
	a*b		0.17936	
	se		0.0273	
Effect size Measures				
	Standardized Coefficients			R^2 Measures (Variance)
	Total:	0.361		0.130
	Direct:	0.106		1.561
	Indirect:	0.254		0.114
	Indirect to Total Ratio:	0.704		0.880

Source: Authors own work

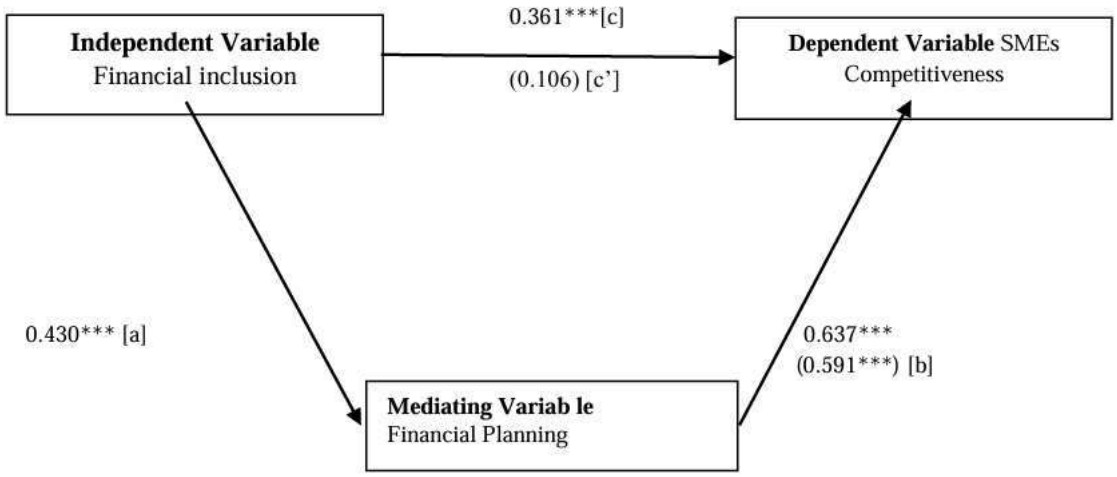


Figure 2: Medgraph showing the mediation of financial planning in the effect of financial inclusion on SMEs competitiveness.
Source: Author's own work

To fully describe the mediating role of financial planning in the relationship between financial inclusion and SMEs competitiveness, the results were presented using the two models and based on the following conditions; a). Financial inclusion has a significant positive effect on SMEs competitiveness, b). Financial planning and SMEs competitiveness are positively related, c). The effect of financial inclusion on SMEs competitiveness is mediated by financial planning.

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Based on Baron and Kenny (1986)'s conditions for testing mediation and using information in the Medgraph (figure 2), the following are noted: financial inclusion accounts for a significant proportion of change in SMEs competitiveness ($\beta = 0.361$, $p<0.01$). The hypothesis (H_2) is supported and the results are consistent with findings by Ermawati (2025) that access to finance through financial inclusion is vital in driving the growth and sustainability of SMEs. Similarly, consistent with Hypothesis (H_5), financial inclusion accounts for a significant proportion of change in financial planning ($\beta = 0.430$, $p<0.01$). Relatedly, financial planning accounts for a significant proportion of change in SMEs competitiveness ($\beta = 0.596$, $p<0.01$). Finally, the absolute effect of financial inclusion on SMEs competitiveness reduced from ($\beta = 0.361$) to ($\beta = 0.106$). Thus, all conditions have been satisfied, thereby confirming that financial planning mediates the relationship between financial inclusion and SMEs competitiveness in Uganda.

After satisfying Baron and Kenny (1986) condition, further analysis was conducted to test the significance of the mediation effect. This was achieved through generating a Sobel z-value using a MedGraph. Study results in figure 2 (MedGraph) show a large and significant Sobel z-value ($z = 6.570968$, $p=<0.000001$). Results further indicate that when financial planning is introduced, the standardized beta (β) for the association between financial inclusion and SMEs competitiveness deceases from ($\beta = 0.361$) to ($\beta = 0.106$). Further still, since the association between the financial inclusion and SMEs competitiveness is not significant after the introduction of the mediator, it suggests that a full mediation exists. A ratio index (i.e. indirect effect/total effect) of 70.4% given by (0.254/0.361*100) was calculated. This shows that 70.4% of the effect of financial inclusion goes through financial planning while the 29.6% is a direct effect as indicated in Table 6. To sum up, the total effect of financial inclusion on SMEs competitiveness through financial planning ($\beta = 0.637$, $p = 0.000$) is higher that total direct effect ($\beta = 0.361$, $p = 0.000$). This is consistent with findings by Mahaitin & Djuli, (2025) that financial inclusion without adequate financial planning skills will not yield optimal benefits. The effectiveness of financial inclusion on competitiveness of SMEs can be achieved with appropriate financial planning.

5.0 CONCLUSIONS, RECOMMENDATIONS AND STUDY LIMITATIONS

5.1 conclusions

The results reveal that financial literacy has a positive and significant effect on competitiveness of SMEs but this operates through financial planning. Financial knowledge and technical skills aid in making good financial planning in terms of budgeting and investments which ultimately significantly and positively influence competitiveness of SMEs in terms of market share, product innovation and profitability. The results further reveal a positive significant relationship between financial planning and competitiveness of SMEs. That SMEs can only thrive and grow sales revenue, profitability and the market if they carryout proper financial planning.

The study further reveal that the positive significant effect of financial inclusion on competitiveness of SMEs is fully mediated by financial planning. Access and use of financial resources aid the enterprises to carryout financial planning. Preparing clear budgets for resource mobilization and expenditure and making clear investment plans help SMEs to sustain their operations and influence their competitiveness. Therefore, both financial literacy and financial competitiveness have a statistically significant influence on SMEs competitiveness but this is fully mediated by financial planning.

5.2 Policy implications and recommendations

Based on results from this study, financial literacy activities should be encouraged to equip managers of SMEs obtain financial knowledge and technical skills necessary for carrying out proper budgeting and investment decisions. This will enable the enterprises to sustain their operations and grow their revenues, profitability and market share. Access and use of financial resources is vital for enterprises to carryout financial planning. Since SMEs play a significant role in enhancing economic growth of a country.

Government and private sector financial institutions should integrate financial literacy and inclusion activities that enhance financial planning and competitiveness of these enterprises. The focus be to equip managers with financial technical skills needed for making right investment decisions which ultimately leads to competitiveness of SMEs.

5.3 Limitations and areas for further research (to adjust)

Like any other studies, this research has limitations that suggest direction for future studies. For instance, the study was carried out in the central region; specifically, the Kampala central business area. This is a geographical limitation. Further studies should be carried out in all regions of the country to provide realistic inferences. Furthermore, the study only used a quantitative approach of data collection using self-administered closed ended questionnaires. This can easily introduce a response bias. Future studies should explore using mixed methods using both qualitative and quantitative approaches to reduce response bias and enhance validity and generalizability.

Declaration of conflict of interest

The authors declare no conflict of interest

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