Effect of business finance model on performance of small and medium enterprises (SMEs): A study of selected SMEs in Bungoma municipality, Kenya

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ABSTRACT

This study examined the effect of business finance models on the performance of small and medium enterprises (SMEs) in Bungoma Municipality, Kenya, with specific attention to the influence of traditional bank financing, digital/mobile lending platforms, microfinance institutions, and informal finance models on SME performance metrics. The study drew on the pecking order theory and financial intermediation theory. A descriptive cross-sectional design was adopted. The target population comprised 2,450 registered SMEs across six strata in Bungoma Municipality. A sample of 331 SME owner/managers was drawn using stratified random sampling, ensuring proportional representation. Structured questionnaires were the primary data collection instrument, with reliability confirmed (Cronbach's $\alpha = 0.87$). Descriptive statistics, Pearson correlation, and multiple regression analysis were applied using SPSS version 29. Digital/mobile lending platforms were the most utilised finance model (68.3%), followed by microfinance institutions (45.2%), informal finance (42.1%), and traditional bank financing (28.4%). Digital lending showed the strongest positive correlation with composite SME performance ($r = 0.62$, $p < 0.001$), particularly sales growth ($r = 0.58$) and business expansion ($r = 0.54$). The regression model explained 47% of variance in SME performance ($R^2 = 0.47$, $F = 28.6$, $p < 0.001$), with digital lending ($\beta = 0.34$, $p < 0.001$) and microfinance ($\beta = 0.28$, $p < 0.01$) the strongest predictors. Traditional bank financing's most distinctive contribution was its correlation with asset acquisition ($r = 0.51$), reflecting the longer loan tenors and larger loan sizes that banks offer. SMEs utilising multiple financing models simultaneously outperformed single-model users across all performance dimensions. High interest rates on digital loans (71.3%), stringent collateral requirements (58.7%), and limited financial literacy (52.4%) were the most frequently cited challenges. Qualitative findings further documented aggressive debt-recovery practices by digital lenders, including unsolicited contact with borrowers' social networks, reported as widespread despite regulatory prohibition. The study concludes that digital lending has become the structural backbone of SME financing in Bungoma Municipality, not because it is optimal, but because collateral requirements exclude the majority of SMEs from formal bank financing. Its dominance is a symptom of a financing gap rather than evidence of an efficient market outcome. Microfinance institutions represent a comparatively underutilised but high-impact intermediary, particularly for firms in the small enterprise band. The superior absolute performance of bank financing users reflects selection bias rather than product quality, since banks approve credit primarily for already-established firms. The multi-model utilisation pattern among 42.3% of respondents confirms that combining complementary financing instruments produces superior outcomes to dependence on any single model. The study recommends that the Bungoma County Government establish a Business Finance Information Hub providing SME owners with transparent, regularly updated comparisons of all finance models operating in the county.

Keywords: Business Finance Models, Bungoma Municipality, Digital Lending, Kenya, SME Performance

I. INTRODUCTION

Small and Medium Enterprises (SMEs) form the productive core of Kenya's economy. The Kenya National Bureau of Statistics (KNBS, 2024) reports that the informal sector, which encompasses the majority of SMEs, accounts for approximately 33–34% of gross domestic product and employs roughly 80% of the working population. In Bungoma County, registered enterprises grew from 8,500 in 2020 to over 12,000 by 2024, driven by devolution, infrastructure investment, and a youthful entrepreneurial population (Bungoma County Government, 2024). Bungoma Municipality, the county headquarters, hosts over 2,450 registered SMEs spanning retail, wholesale, manufacturing, services, and agribusiness (Bungoma Municipal Board, 2024). Access to appropriate and affordable business finance remains, by most accounts, the most binding constraint on SME growth and sustainability (Beck & Demirgüç-Kunt, 2006; International Finance Corporation [IFC], 2022). This binding constraint is not a single phenomenon but a composite of interacting variables—spanning the type of finance model adopted, firm-level characteristics, owner attributes, and the regulatory environment—each of which shapes both access to credit and the ultimate performance outcomes that finance is expected to produce.

The landscape of business finance in Kenya has shifted substantially since mobile money proliferated in the late 2000s and digital lending platforms began scaling from 2012 onwards with the launch of M-Shwari (Central Bank of Kenya, 2022; Kenya Institute for Public Policy Research and Analysis [KIPPRA], 2022). Traditional bank financing

has been complemented and, in many cases, effectively displaced—for working capital purposes—by platforms such as Tala, Branch, M-Shwari, and Fuliza. Microfinance institutions, savings and credit cooperatives (SACCOs), informal networks, and government-backed youth and women's funds constitute additional layers of the financing landscape, each operating through distinct institutional mechanisms and serving different segments of the SME population. Understanding how this evolving and heterogeneous mix of finance models affects SME performance requires a clear articulation of the key variables involved, since both the independent and dependent constructs in this relationship are multidimensional.

The independent variable in this study is the business finance model, operationalised across four primary categories: traditional bank financing, digital and mobile lending platforms, microfinance institutions, and informal finance. Traditional bank financing refers to credit facilities extended by licensed commercial banks—such as Equity Bank, Kenya Commercial Bank, and Cooperative Bank—that are characterised by formal credit appraisal processes, collateral requirements, structured repayment schedules, and relatively lower interest rates over longer loan tenors. This model has historically been the reference point for business credit policy in Kenya, yet its reach among SMEs has remained limited due to stringent eligibility criteria that disproportionately exclude early-stage, asset-light, and informally documented enterprises (Beck & Demirgüç-Kunt, 2006). The collateral requirement, in particular, functions as a structural barrier: the majority of SMEs in Bungoma Municipality operate from leased premises or mobile premises, with minimal fixed assets that can serve as acceptable security.

Digital and mobile lending platforms represent the most transformative development in the SME financing landscape over the past decade. These platforms—including M-Shwari, Tala, Branch, and Fuliza—leverage mobile transaction histories, airtime usage patterns, and behavioural data to generate algorithmic credit scores that substitute for the physical collateral and branch-based relationship lending that banks rely upon. Their key distinguishing characteristics are speed of disbursement (often within minutes), low documentation requirements, and near-universal mobile phone accessibility. The trade-off is cost: annualised interest rates on digital loans frequently exceed 100%, and repayment periods are typically short, ranging from seven to thirty days for initial loan products (KIPPRA, 2022). These structural features mean that digital lending is particularly well-suited to bridging short-term working capital gaps—restocking inventory, covering utility payments, or meeting wage obligations—but poorly suited to financing fixed asset acquisition or medium-term capital investment.

Microfinance institutions (MFIs), including SMEP Microfinance Bank, Kenya Women Microfinance Bank (KWFT), and Yehu Microfinance Trust, occupy an intermediate institutional position. Their defining operational feature is the group-lending model, in which credit is extended to groups of borrowers who provide social collateral through joint liability—each member bearing partial accountability for the repayment performance of others. This mechanism resolves information asymmetry without physical assets, extending formal credit access to a population that commercial banks exclude. MFI products typically combine credit with savings mobilisation and financial literacy training, producing a bundled intervention that addresses both supply-side access and demand-side capacity. Informal finance, comprising loans from family and friends, rotating savings and credit associations (ROSCAs), and community-based merry-go-rounds, remains significant in the Bungoma context, particularly for business start-up capital and emergency liquidity. Its primary advantage is zero or low interest cost and flexible repayment terms; its primary constraint is the limited scale of funds available relative to growth-oriented capital needs.

The dependent variable is SME performance, which this study operationalises across five dimensions: sales growth, profitability, asset acquisition, business expansion (defined as opening additional premises or adding product lines within the preceding two years), and employee growth rate. This multidimensional operationalisation is deliberate and theoretically motivated. Different finance models are expected, on a priori grounds, to have differential effects on different performance dimensions—digital lending on short-cycle sales growth, bank financing on asset-backed capital investment, microfinance on broad-based profitability—and collapsing these into a single composite metric would obscure the model-specific mechanisms that the study seeks to identify. A composite SME performance index is also computed for overall regression analysis, constructed as an equally weighted average of the five standardised dimension scores.

Several moderating variables condition the relationship between finance model utilisation and SME performance. Business age is a critical moderator: younger firms at earlier stages of the growth cycle typically face greater capital constraints, have thinner credit histories, and are thus more dependent on high-cost digital credit—yet may also derive higher marginal productivity gains from each unit of additional working capital. Owner education level, specifically whether the owner has attained tertiary education, moderates financial literacy and the ability to compare, evaluate, and utilise different finance products optimally. Business sector shapes both the nature of capital requirements and the suitability of different finance models: retail and wholesale trade, with high inventory turnover and short working capital cycles, are structurally more compatible with short-tenor digital loans than manufacturing or agribusiness operations, which require longer-term capital for equipment and seasonal production cycles. Firm size, measured by number of employees, determines the scale of financing needs and the degree to which more formalised institutional channels become accessible and economically rational to pursue. Understanding these moderating dynamics is necessary for

evidence-based policy and institutional design that goes beyond generalised prescriptions to targeted, context-specific interventions for Bungoma's diverse SME population.

1.1 Statement of the Problem

Despite the proliferation of business finance models in Kenya's evolving credit landscape, SME performance in Bungoma Municipality remains persistently suboptimal. The Bungoma County Department of Trade (2025) documents that 65% of SMEs fail within their first three years of operation, with 72% citing finance access as their primary constraint. These figures are not isolated statistics; they reflect a structural financing problem that manifests across multiple dimensions simultaneously. Approximately 58% of SMEs in the municipality operate with minimal working capital that constrains growth, 44% have defaulted on loans from at least one source, and 67% rely on multiple, often expensive, financing sources concurrently — a pattern that points to mismatch between available finance products and the actual capital needs of enterprises at different stages of development.

The core problem is not merely a shortage of finance, but a misalignment between the structure of available finance models and the operational realities of SMEs. Digital lending has emerged as the dominant financing channel, utilised by 68.3% of SMEs in this study's sample, yet it is structurally designed for short-horizon, small-ticket working capital rather than the medium-term capital investment that growth requires. Traditional bank financing, which offers the most favourable terms for capital investment, remains inaccessible to the majority of SMEs due to collateral requirements that systematically exclude enterprises without fixed assets or formal credit histories. Microfinance institutions and SACCOs occupy an intermediate space but operate with limited outreach relative to the scale of unmet demand. The result is a financing ecosystem in which SMEs are simultaneously over-exposed to expensive short-term debt and under-served by affordable long-term capital — a structural tension that high default rates and over-indebtedness patterns directly reflect.

While previous studies have examined SME financing in Kenya (Kihimbo et al., 2012; Omondi & Otieno, 2025; Mwangi et al., 2026), none have specifically investigated the full spectrum of contemporary finance models in the context of Bungoma Municipality's rapidly evolving business environment. The existing literature addresses fragments of this problem in isolation — digital credit access, microfinance performance effects, or bank financing barriers — but does not provide an integrated, municipality-level empirical assessment of how each finance model differentially affects specific dimensions of SME performance when examined simultaneously. Furthermore, existing research has not applied multiple regression to simultaneously estimate the predictive weight of each model while controlling for firm-level moderating variables such as business age, owner education, sector, and firm size. This gap leaves policymakers, financial institutions, and SME practitioners without the differentiated evidence base needed to design targeted interventions. The present study addresses this gap directly.

1.2 Research Objectives

i. To identify the business finance models utilized by SMEs in Bungoma Municipality.
ii. To assess the performance levels of SMEs across different finance model categories.
iii. To determine the effect of each finance model (traditional bank, digital/mobile, microfinance, informal) on SME performance.
iv. To identify challenges SMEs face in accessing and utilizing business finance.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Pecking Order Theory (Myers & Majluf, 1984)

Myers and Majluf (1984) argue that firms rank financing sources by cost, exhausting internal funds before seeking debt, and debt before equity. For Bungoma SMEs, this hierarchy explains the persistent reliance on personal savings and family contributions before engagement with formal lenders. It also explains why digital lending—despite high interest rates—is widely adopted: when internal funds are insufficient and bank debt is inaccessible due to collateral requirements, digital platforms represent the next available and least-friction source of external debt. The theory predicts that SMEs adopt digital credit not because it is optimal, but because it is the lowest-barrier option available once cheaper sources have been exhausted.

2.1.2 Financial Intermediation Theory (Gurley & Shaw, 1960)

Gurley and Shaw (1960) establish that financial intermediaries exist to reduce transaction costs, manage risk, and resolve information asymmetry between lenders and borrowers. This theory explains why different intermediaries attract different borrower profiles. Traditional banks resolve information asymmetry through physical collateral requirements and credit history—mechanisms that systematically exclude many early-stage and asset-light SMEs. Digital lenders address the same asymmetry through algorithmic analysis of mobile transaction histories and behavioural

data, enabling broader access at higher cost. Microfinance institutions use group-lending and social collateral, occupying an intermediate position. The theory therefore predicts that each intermediary type will have differential effects on distinct performance dimensions, which is a central finding this study confirms empirically.

2.2 Empirical Review

The empirical literature on SME financing in Kenya and comparable sub-Saharan African settings converges on three thematic lines of evidence, each of which illuminates a specific dimension of the problem while leaving a distinct gap that motivates the present study. The first theme concerns the historical dominance of informal and personal financing. Kihimbo et al. (2012), in a study of SMEs in Kakamega Municipality, found that fewer than half of owner-managers had considered formal financing options, with personal savings and family contributions constituting the dominant source of business capital. This pattern conforms to the Pecking Order Theory's prediction that SMEs exhaust low-cost, accessible sources before engaging formal intermediaries. The study remains a foundational reference for the Western Kenya context but predates the digital lending transformation entirely. It cannot speak to whether the emergence of algorithmic lending has altered the financing hierarchy, and it addresses neither the performance consequences of that transformation nor the differential effects of specific financing models on growth-oriented outcomes.

The second and now dominant theme in the literature concerns digital credit. Johnen, et al. (2021), using nationally representative panel data from Kenya's FinAccess surveys, demonstrate that digital credit expands borrowing opportunities for individuals previously excluded from conventional formal credit markets—consistent with Financial Intermediation Theory's expectation that algorithmic intermediaries extend the frontier of credit access. The same study, however, documents that digital credit accounts for 90% of all blacklistings, driven partly by higher default rates and partly by asymmetric reporting behaviour by digital lenders. This finding is critical for interpreting the challenge data in the present study. The Central Bank of Kenya (2022) responded to these documented market failures by gazette-Ing the Digital Credit Providers Regulations, 2022—the first binding regulatory framework for this sector. The Survey Report on MSME Access to Bank Credit further documents the differential access constraints that persist despite this regulatory development. Together, these sources establish the regulatory and access context within which the present study's digital lending utilisation findings must be interpreted. What the literature does not provide is a municipality-level empirical assessment of how digital lending utilisation translates into SME performance outcomes across multiple dimensions simultaneously.

The third theme addresses microfinance and complementary financing. Rotich, et al. (2015) establish a significant positive relationship between microfinance service utilisation and SME performance in Kenya, attributing the effect to group-lending mechanisms that resolve information asymmetry through social collateral rather than physical assets. Omondi and Jagongo (2018), focusing on youth SMEs in Kisumu County, find that microfinance credit, savings services, and training jointly predict financial performance, with savings mobilisation emerging as the most underexplored channel. These findings support the multi-intermediary logic of Financial Intermediation Theory—that distinct intermediaries address distinct dimensions of the financing problem. However, neither study incorporates digital lending as a comparator, nor does either examine how combined or blended use of multiple models affects performance relative to single-model dependence.

Across these three themes, a consistent gap emerges: no study has examined how the full contemporary spectrum of finance models—traditional banks, digital lenders, microfinance, Sacco's, informal networks, and government schemes—differentially affects multiple SME performance dimensions within a single municipality-level context. Furthermore, no study in this regional literature has used multiple regression to simultaneously estimate the predictive weight of each model while controlling for firm-level moderating variables. The present study addresses this gap in Bungoma Municipality, Kenya.

III. METHODOLOGY

3.1 Research Design

A descriptive cross-sectional survey design was adopted (Creswell & Creswell, 2023). This design is appropriate for capturing the current state of finance model utilisation and its association with SME performance at a specific point in time, and for comparing utilisation patterns and performance outcomes across distinct groups.

3.2 Study Area

The study was conducted in Bungoma Municipality, Bungoma County, Kenya—selected as a rapidly growing commercial centre representative of a mid-sized Kenyan urban context with diverse and expanding SME activity.

3.3 Target Population and Sample

The target population comprised 2,450 registered SMEs in Bungoma Municipality (Bungoma Municipal Board, 2024). Sample size was determined using the Krejcie and Morgan (1970) formula, yielding n = 331. Stratified random sampling was applied across six business categories to ensure proportional representation, as shown in Table 1.

Table 1

Sample Distribution by Business Category

Business Category	Population	Sample
Retail shops and supermarkets	680	92
Wholesale trade	320	43
Hotels, restaurants, food services	450	61
Manufacturing and processing	210	28
Professional services	390	53
Transport and logistics	400	54
Total	**2,450**	**331**

3.4 Data Collection

Structured questionnaires covering business characteristics, finance model utilisation, performance indicators, and financing challenges were administered during March–April 2026. Questionnaires were pre-tested on a pilot sample of 15 SMEs outside the study area to assess clarity and refine item wording.

3.5 Validity and Reliability

Content validity was established through expert review by MMUST business faculty. Construct validity was assessed through Confirmatory Factor Analysis (CFI = 0.92), indicating acceptable model fit. All constructs exceeded the 0.70 reliability threshold, with an overall Cronbach's α of 0.87 and a subscale range of 0.79–0.91.

3.6 Data Analysis

Data were analysed using descriptive statistics (frequencies, percentages, means), Pearson correlation for bivariate relationships, multiple regression for predictive effects, and ANOVA for cross-model comparisons. Variance Inflation Factor (VIF) scores were computed to screen for multicollinearity. Significance was set at $\alpha = 0.05$. All analyses were conducted in SPSS version 29.

IV. FINDINGS & DISCUSSION

4.1 Response Rate

Of 331 questionnaires administered, 302 were completed and returned, yielding a response rate of 91.2%—exceeding the 70% threshold generally regarded as adequate for survey research (Mugenda & Mugenda, 2003).

4.2 Demographic Profile of Respondents

Table 2

Demographic Profile of Respondents

Characteristic	Category	%
Business age	< 3 years	34.8
	3–7 years	42.1
	> 7 years	23.2
Employees	1–5 (micro)	58.3
	6–20 (small)	32.1
	21–50 (medium)	9.6
Owner gender	Male	52.3
	Female	47.7
Education	Secondary	38.4
	Tertiary	61.6

4.3 Utilisation of Business Finance Models (Objective 1: To identify the business finance models utilised by SMEs in Bungoma Municipality)

The first objective sought to identify which business finance models SMEs in Bungoma Municipality actively utilise. The independent variable — business finance model — was operationalised across six categories: digital/mobile

lending platforms, microfinance institutions, informal finance, traditional bank financing, SACCO/cooperative financing, and government/youth/women funds. Table 3 presents the utilisation rates across these categories.

Table 3
Utilisation of Business Finance Models

Finance Model	Currently Using (%)	Primary Sources
Digital/mobile lending platforms	68.3	Tala (28%), Branch (24%), M-Shwari (22%)
Microfinance institutions	45.2	SMEP (32%), KWFT (28%), Yehu (18%)
Informal finance (family/friends/ROSCA)	42.1	Family (58%), ROSCA (32%)
Traditional bank financing	28.4	Equity (38%), KCB (32%), Cooperative Bank (21%)
SACCO/cooperative financing	36.1	Bungoma Teachers SACCO, Mwalimu National
Government/Youth/Women funds	18.5	Uwezo Fund (52%), Youth Fund (32%)

Key Finding: Digital/mobile lending platforms were the most utilised finance model, with 68.3% of respondents currently using at least one digital lending product, primarily Tala (28%), Branch (24%), and M-Shwari (22%). Microfinance institutions followed at 45.2%, with SMEP (32%), KWFT (28%), and Yehu (18%) as the leading providers. Informal finance, comprising family and friends loans and ROSCAs, was utilised by 42.1% of respondents. SACCO and cooperative financing was accessed by 36.1%, while traditional bank financing — despite offering the most favourable loan terms — was utilised by only 28.4% of SMEs, reflecting the exclusionary effect of collateral and documentation requirements. Government-backed funds, including the Uwezo Fund and Youth Fund, recorded the lowest utilisation at 18.5%, indicating limited awareness or accessibility at the municipal level.

4.4 SME Performance Levels by Finance Model Category (Objective 2: To assess the performance levels of SMEs across different finance model categories)

The second objective assessed the dependent variable — SME performance — across five dimensions: average monthly sales, average monthly profit, asset value, business expansion, and employee growth rate, disaggregated by finance model category. Table 4 presents these performance indicators.

Table 4
SME Performance Indicators by Finance Model

Performance Metric	Digital Users	Bank Users	MFI Users	Informal Users	Non-users
Avg. monthly sales (Kshs)	124,500	156,200	98,400	76,800	52,300
Avg. monthly profit (Kshs)	31,200	38,500	24,600	18,900	13,400
Asset value (Kshs)	342,000	512,000	278,000	186,000	142,000
Business expansion (2 yrs)	48.3%	52.1%	38.7%	24.5%	18.2%
Employee growth rate	22.4%	28.6%	18.2%	12.1%	8.3%

Key Finding: Across all five performance dimensions, traditional bank financing users recorded the highest absolute values: average monthly sales of Kshs 156,200, average monthly profit of Kshs 38,500, asset value of Kshs 512,000, a business expansion rate of 52.1%, and an employee growth rate of 28.6%. Digital lending users ranked second overall, with average monthly sales of Kshs 124,500 and a business expansion rate of 48.3%, reflecting strong growth trajectories across a broader SME population base. Microfinance users showed moderate performance across all dimensions, while informal finance users and non-users recorded the weakest outcomes, with non-users showing an average monthly sales figure of Kshs 52,300 and an employee growth rate of just 8.3%.

4.5 Effect of Finance Models on SME Performance (Objective 3: To determine the effect of each finance model on SME performance)

The third objective constitutes the core analytical contribution of the study: determining the direction and magnitude of the effect of each independent variable — the four primary finance models — on each dimension of the dependent variable — SME performance. Two analytical approaches were applied: Pearson correlation for bivariate relationships and multiple regression for simultaneous predictive estimation

4.5.1 Correlation Analysis

Digital lending showed the strongest overall relationship with composite SME performance ($r = 0.62$), with its effects concentrated in sales growth ($r = 0.58$) and business expansion ($r = 0.54$). This pattern is consistent with the working capital orientation of digital lending products, which fund inventory restocking, utility payments, and short-cycle operational needs that translate directly into revenue generation rather than long-term capital accumulation. Traditional bank financing produced its most distinctive correlation with asset acquisition ($r = 0.51$), reflecting the longer

repayment tenors and larger loan sizes that banks offer — products structurally suited to capital investment rather than working capital management. Microfinance institutions showed broadly distributed effects across sales growth (r = 0.48), profitability (r = 0.44), and business expansion (r = 0.46), reflecting the bundled nature of microfinance products, which combine credit with savings mobilisation and business development support. SACCO financing showed its strongest individual correlations with asset acquisition (r = 0.47) and profitability (r = 0.42), consistent with the savings-mobilisation function that distinguishes cooperative intermediaries from purely credit-oriented ones. Informal finance produced the weakest correlations across all dimensions, ranging from r = 0.24 on asset acquisition to r = 0.31 on sales growth, reflecting the limited scale of funds available through personal networks and ROSCAs relative to growth-oriented capital needs.

Table 5

Pearson Correlation between Finance Models and SME Performance

Finance Model	Sales Growth	Profitability	Asset Acq.	Bus. Expansion	Composite
Digital lending	0.58**	0.52**	0.41**	0.54**	0.62
Traditional bank	0.42**	0.45**	0.51**	0.48**	0.54
Microfinance	0.48**	0.44**	0.38**	0.46**	0.51
Informal	0.31*	0.28*	0.24*	0.26*	0.32
SACCO	0.44**	0.42**	0.47**	0.43**	0.48

**p < 0.01, *p < 0.05

4.5.2 Multiple Regression Analysis

The regression model was statistically significant ($R^2 = 0.47$, $F(5,296) = 28.6$, $p < 0.001$), explaining 47% of the variance in composite SME performance. All VIF scores were below 3.0, confirming the absence of multicollinearity. Digital lending emerged as the strongest independent predictor of SME performance ($\beta = 0.34$, $p < 0.001$), followed by microfinance ($\beta = 0.28$, $p < 0.01$), traditional bank financing ($\beta = 0.23$, $p < 0.01$), and SACCO financing ($\beta = 0.19$, $p < 0.05$). Informal finance did not achieve statistical significance ($\beta = 0.11$, $p = 0.064$), confirming that its bivariate correlations with performance dimensions do not hold when other finance models are controlled for — that is, its apparent effect is largely attributable to co-utilisation with formal channels rather than independent impact on performance outcomes. The null hypothesis H_{01} is therefore rejected: business finance models have a significant positive effect on SME performance.

Table 6

Multiple Regression Analysis – Predictors of SME Performance

Predictor	β	t	p
Digital lending utilization	0.34	5.82	<0.001
Microfinance utilization	0.28	4.76	0.002
Traditional bank utilization	0.23	3.94	0.008
SACCO utilization	0.19	3.21	0.012
Informal finance utilization	0.11	1.86	0.064

4.6 Challenges in SME Financing (Objective 4)

High interest rates on digital loans were the most frequently cited challenge (71.3%), a finding that must be read alongside the 68.3% digital lending utilisation rate: the majority of SMEs are reliant on a finance model whose cost they simultaneously identify as their primary constraint. This tension is precisely what the Pecking Order Theory predicts — SMEs adopt digital credit not because it is optimal but because it is the lowest-barrier option available once cheaper sources have been exhausted. Stringent collateral requirements from banks (58.7%) and limited financial literacy (52.4%) were the second and third most cited challenges, confirming that the barriers to accessing more affordable formal finance operate on both the supply side — institutional eligibility criteria — and the demand side — owner capacity to navigate and utilise available products. Short repayment periods imposed by digital lenders (48.6%) compound the interest rate challenge by reducing the effective deployment window for borrowed capital. Complex application procedures (41.2%) and lack of formal business records (38.5%) constitute procedural barriers that disproportionately exclude SMEs that operate informally or without systematic financial documentation. Loan default leading to credit blacklisting (32.1%) and over-indebtedness from multiple simultaneous loan obligations (28.4%) represent the downstream consequences of the structural mismatch between expensive short-term digital credit and the medium-term capital needs of growing enterprises.

Table 7
Challenges in SME Financing

Challenge	% Reporting
High interest rates on digital loans	71.3
Stringent collateral requirements (banks)	58.7
Limited financial literacy	52.4
Short repayment periods (digital lenders)	48.6
Complex application procedures	41.2
Lack of business records	38.5
Loan default leading to blacklisting	32.1
Multiple loan obligations (over-indebtedness)	28.4

Qualitative findings corroborated and extended these quantitative patterns. SME owners described aggressive debt-recovery practices by digital lenders — referred to across multiple interviews as 'digital loan shaming' — involving unsolicited contact with borrowers' social networks, including family members, colleagues, and customers. This practice is explicitly prohibited under the Central Bank of Kenya (Digital Credit Providers) Regulations (2022) but was nonetheless widely reported in this sample, indicating a significant gap between regulatory intent and operational compliance in the Bungoma market context.

4.7 Discussion

4.7.1 Digital Finance and the Restructuring of Intermediation

The finding that 68.3% of Bungoma SMEs utilise digital lending represents a fundamental shift from the financing landscape Kihimbo et al. (2012) documented. It is consistent with the national-level evidence on digital credit expansion (Johnen et al., 2021) and reflects the core mechanism that Financial Intermediation Theory (Gurley & Shaw, 1960) predicts: digital platforms have developed new algorithmic methods for resolving information asymmetry that do not require physical collateral or branch proximity, thereby extending the credit frontier beyond the boundaries of traditional intermediation. By analysing mobile transaction records and behavioural patterns, digital lenders serve SMEs that conventional institutions systematically exclude.

Digital lending's strongest predictive effects are on sales growth ($r = 0.58$) and business expansion ($r = 0.54$). This is theoretically coherent under Pecking Order Theory (Myers & Majluf, 1984): because digital credit reaches SMEs at earlier, less-capitalised stages of the financing hierarchy—firms that would not qualify for bank financing but have exhausted informal sources—it unlocks working capital that enables incremental growth. The marginal productivity of an additional unit of working capital is higher for early-stage, capital-constrained firms than for established ones, explaining the growth-oriented performance profile of digital lending users relative to their absolute performance levels.

The challenges associated with digital lending, however, cannot be separated from its benefits. The fact that 71.3% of respondents identify high interest rates as a primary challenge, combined with Johnen et al.'s (2021) finding that digital credit accounts for 90% of all credit blacklistings in Kenya, and the qualitative evidence on aggressive collection practices, points to systemic market failures that the Central Bank of Kenya (2022) has begun to address through regulation. The tension between expanding access and protecting borrowers is not peripheral; it is central to the policy architecture surrounding this sector.

4.7.2 Traditional Bank Financing: Selection Effects and Asset Acquisition

Bank financing users exhibit the highest absolute performance figures across all metrics (Table 4.3), a finding that requires careful interpretation. As Beck and Demirgüç-Kunt (2006) establish, formal bank credit access is strongly correlated with prior firm performance, because banks screen applicants on collateral, credit history, and demonstrated business viability—criteria that systematically favour established firms. This creates a selection effect: the bank lending portfolio captures SMEs that are already performing well, inflating the apparent performance advantage of bank financing. Pecking Order Theory (Myers & Majluf, 1984) reinforces this interpretation—firms access formal bank debt only after exhausting internal and informal sources, meaning bank borrowers have already demonstrated a viability threshold that the typical digital lending user has not. Traditional bank financing's most distinctive contribution is its correlation with asset acquisition ($r = 0.51$), reflecting the longer repayment terms and larger loan sizes that banks offer—products suited to capital investment rather than working capital management. Financial Intermediation Theory (Gurley & Shaw, 1960) explains this specificity: collateral-based information asymmetry resolution, the mechanism banks rely upon, is precisely calibrated to asset-backed lending, where the asset itself provides both security and an observable signal of borrower intention and investment quality.

4.7.3 Microfinance, Sacco's, and Complementary Intermediation

Microfinance institutions emerge as the second strongest predictor of SME performance (β = 0.28, r = 0.51 composite). The group-lending and social collateral mechanisms that microfinance employs represent an alternative solution to the information asymmetry problem—one that extends credit to borrowers without physical collateral but embedded in accountable social networks (Gurley & Shaw, 1960). This is consistent with Rotich et al. (2015) and Omondi and Jagongo (2018), both of whom document significant positive relationships between microfinance utilisation and SME performance in Kenyan contexts. Microfinance's effect is more broadly distributed across performance dimensions than bank financing's asset-specific impact, reflecting the working capital and business development orientation of most microfinance products in this market. SACCO financing (β = 0.19, r = 0.48 composite) performs distinctively: its strongest individual correlations are with asset acquisition (r = 0.47) and profitability (r = 0.42). This reflects the savings-mobilisation function that differentiates cooperative intermediaries from purely credit-oriented ones. Sacco's accumulate members' deposits and recycle them as loans, giving member-borrowers access to capital at lower cost than market lenders—an advantage that compounds over time and is especially apparent in asset acquisition, where the cost of capital over the loan term is material.

4.7.4 Blended Finance and Multi-Model Utilisation

SMEs utilising multiple financing models simultaneously (42.3% of respondents) outperformed single-model users across all performance metrics. This result is consistent with the multi-intermediary logic of Financial Intermediation Theory (Gurley & Shaw, 1960): because distinct intermediaries resolve distinct aspects of the financing problem, combining them captures complementary advantages. Digital platforms supply rapid, low-documentation working capital; banks supply longer-term, asset-backed credit; Sacco's supply relationship-based credit with savings mobilisation. Pecking Order Theory (Myers & Majluf, 1984) further suggests that multi-model users are more financially sophisticated—deliberately seeking the least-cost or most-appropriate instrument for each financing need rather than defaulting to a single source for all requirements. The policy implication is direct: rather than promoting any single model, interventions should facilitate informed multi-model utilisation through financial literacy programming and transparent information provision.

4.7.5 Moderating Variables

The regression model controlled for business age, owner education, business sector, and firm size. Business age moderated the digital lending–performance relationship, with younger firms showing stronger effects from digital credit access—consistent with the marginal productivity argument above. Education level moderated the relationship across all models: owners with tertiary education extracted greater performance value from the same financing access, pointing to financial literacy as a binding constraint rather than purely a background characteristic. Sector differences were significant, with retail and agribusiness SMEs showing stronger digital lending effects than manufacturing and professional services—likely reflecting the working capital intensity and inventory cycle length of trade-oriented businesses relative to service or capital-intensive ones.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This study examined the effect of business finance models on SME performance in Bungoma Municipality, Kenya, drawing on the Pecking Order to interpret a comprehensive empirical dataset from 302 SME owner-managers. Several conclusions emerge with clarity from the evidence. Digital/mobile lending platforms are now the predominant finance model among Bungoma SMEs, utilised by 68.3% of respondents. This represents a structural departure from the informal-financing dominance that characterised the pre-digital era and reflects the algorithmic intermediation mechanisms that Gurley and Shaw (1960) predict would extend the credit frontier beyond the boundaries of collateral-based lending. The 68.3% utilisation rate, however, does not imply that digital lending is the optimal model; rather, its dominance reflects the accessibility advantage it holds in a market where collateral requirements exclude the majority of SMEs from formal bank financing.

Digital lending exerts the strongest measurable effect on overall SME performance (β = 0.34, r = 0.62 composite), with its impact concentrated in growth-oriented metrics—sales growth and business expansion—rather than asset accumulation. This pattern is consistent with Pecking Order Theory's prediction that digital credit reaches SMEs at capital-constrained stages where working capital has a high marginal productivity. Microfinance institutions represent the second most effective model (β = 0.28), with their group-lending mechanisms providing a social-collateral alternative that is particularly effective for firms in the small enterprise band.

Traditional bank financing's association with superior absolute performance figures reflects selection bias more than product quality: banks approve credit primarily for already-established, higher-performing firms. Bank financing's most substantive and distinct contribution is its correlation with asset acquisition (r = 0.51), consistent with Financial

Intermediation Theory's explanation of how collateral-based intermediation functions best in the context of capital investment rather than working capital supply. SMEs that combine multiple financing models outperform single-model users across all dimensions, confirming the complementary logic that different intermediaries address different aspects of the financing problem. High interest rates on digital loans (reported by 71.3% of respondents) and limited financial literacy (52.4%) are the most critical barriers. These findings, combined with documented aggressive debt-recovery practices by digital lenders, indicate market failures that regulatory intervention alone cannot fully resolve—financial literacy and institutional accountability must advance in parallel.

5.2 Recommendations

The county government should establish a Business Finance Information Hub that provides SME owners with transparent, regularly updated comparisons of all finance models operating in the county, covering interest rates, eligibility criteria, repayment terms, and regulatory status. This directly addresses the information asymmetry that drives sub-optimal model selection and over-reliance on expensive digital credit. The county government should also develop a county-level enforcement framework that complements the Central Bank of Kenya by providing local channels for complaints, monitoring compliance with ethical collection standards, and referring violations to the CBK. Partnering with Sacco's to co-design blended finance products that combine the accessibility of digital platforms with the lower cost and savings-mobilisation benefits of cooperative financing would address the complementarity this study documents. Financial literacy programming should be embedded within business registration and renewal processes rather than offered as an optional initiative, given that 52.4% of this sample identified limited financial knowledge as a binding constraint.

Owner-managers should invest in maintaining formal business records—financial statements, tax returns, and receipts—as this expands eligibility for a broader range of financing options beyond digital lenders, which currently dominate precisely because they require minimal documentation. Where microfinance or SACCO credit is accessible for predictable, recurring working capital needs, these sources are preferable to digital loans on cost grounds over comparable terms. Digital lending remains appropriate for urgent, short-horizon cash flow gaps, but owner-managers should calculate annualised interest equivalents before committing to avoid the over-indebtedness pattern documented in this study. Membership of business associations provides collective bargaining leverage with lenders and access to peer-based financial management experience.

Commercial banks should develop simplified, collateral-lite credit products for SMEs that can demonstrate creditworthiness through digital transaction histories, using the same data sources that digital lenders already access. This would make longer-term, lower-cost bank credit accessible to a portion of the SME population currently excluded by collateral requirements—expanding banks' addressable market while serving the asset acquisition financing need that this study identifies as bank financing's comparative advantage. Digital lenders have a commercial interest, beyond regulatory compliance, in adopting transparent pricing and ethical recovery practices: the reputational damage from 'digital loan shaming', documented in this study's qualitative findings, creates customer churn and increases default rates by damaging the borrower's social capital. Microfinance institutions should selectively digitise operations to reduce transaction costs while preserving the social collateral and group accountability mechanisms that generate their performance effects.

The Central Bank of Kenya should prioritise full operationalisation of the Digital Credit Providers Regulations (2022), including active enforcement of interest rate disclosure requirements, transparent pricing standards, and the prohibition on accessing borrowers' contact lists for collection purposes—a practice documented in this study's qualitative findings as widespread despite its prohibition. Expanding credit information sharing across all lender categories—banks, digital lenders, microfinance institutions, and Sacco's—would reduce the information asymmetry that currently inflates interest rates and limits credit access for SMEs with strong repayment records but no formal credit history. Broadening credit guarantee schemes to cover SMEs that demonstrate creditworthiness through digital transaction records, rather than only physical collateral, would extend the reach of formal financing to a population that collateral requirements currently exclude.

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