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What Drives MSME's Credit Choices? Business Versus Personal Loan Account Utilization in Kenya

Hillary Mulindi, Kiplangat Josea, Samuel Tiriongo, KBA

Abstract

With most economies seeking to tap on MSMEs to navigate beyond the devastating impact of Covid-19, this paper seeks to create an understanding of the MSMEs demand-side credit perspectives. Using 279 MSMEs from the KBA Inuka Enterprise program, we anchor our analysis on a three-step probit model with sample selection to examine the choices on the utilization of business versus personal accounts among MSMEs. The results reveals that the level of MSMEs turnover affect the choice to borrow, who to borrow from and the type of loan to pursue (between personal and business loan). However, the tendency of MSMEs with turnovers of over Ksh 500,000 leaning more towards the utilization of personal over business accounts remains a puzzle. Further, the age of enterprise is important for the decision to take a bank loan or other loans, with the implication that MSMEs need to have a long-term view over their businesses to be attractive to long-term funders (banks). Heterogeneity across the industry is evident and it influences MSMEs credit choices. The gender of MSME owner influences the use of a business or personal account for loans, as the results indicate men use their business accounts more than women. Lastly, registration status of MSMEs matters in accessing business loans. From the policy perspective, discussions around lessening the credit accessibility constraints imposed by turnover levels, the age of enterprise, industry of operation, gender and registration status of enterprises are key.

1.0 Introduction

Accessing financial resources, particularly at their seed, start-up, and growth, remains a major challenge confronting MSMEs, with studies reporting that smaller enterprises experienced higher financing obstacles along the capital structure spectrum comparative to larger enterprises (Wattanapruttipaisan, 2003; Beck & Demirguc - Kunt 2006; Beck, 2007; Duygan-Bump, et al., 2015; Carbo-Valverde, et al. 2016).

Substantial efforts have been undertaken to support the MSMEs as they are poised to drive economic growth. From the global perspective, they are prominently featured in the United Nations 2030 Agenda on Sustainable development, where they are key pillars in the realization of three goals. More specifically, the latter supports: Goal 1, which focuses on ending poverty in all its forms everywhere, Goal 8, which is anchored on promoting inclusive and sustainable economic growth, full and productive employment and decent work for all; and finally, Goal 9 which emphasizes on building resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Domestically, with over 7.4 million SMEs operating in Kenya, more than 15 million people have been able to get employment opportunities, and the enterprises contribute about 30 percent of the national value-added (KNBS, 2016).

Cognizant of the significant role of MSMEs in Kenya, there has been an immense shift in government policies to support their growth and development. With the enactment of the Micro and Small Enterprise Act of 2012, a legal and institutional framework to support SMEs was established. Consequently, the Act led to the establishment of the Office of the Registrar of micro and small enterprise associations (to formalize and register MSMEs), the Micro and Small Enterprise Authority (to operationalize the Act), a tribunal (for conflict resolution) and a fund (to address financing issues), thereby facilitating an enabling environment for small businesses to thrive and enhancing access to funding (Rambo, 2013)

The Access to Government Procurement Opportunities (AGPO) programme was established in 2013. Through the programme, the Government set aside 30 percent

of all Government procurement for youth, women and persons with disabilities. The upside of this policy consideration was to facilitate the youth, women and persons with disability-owned enterprises to participate in government procurement and, therefore, increase their market access and further improve weak linkages in the value chain. Moreover, public funds, including the Youth Enterprise Development Fund, Small and Medium Enterprise (SME) Fund, Uwezo Fund, and Women Enterprise Fund, have been advanced to address the access to credit challenge.

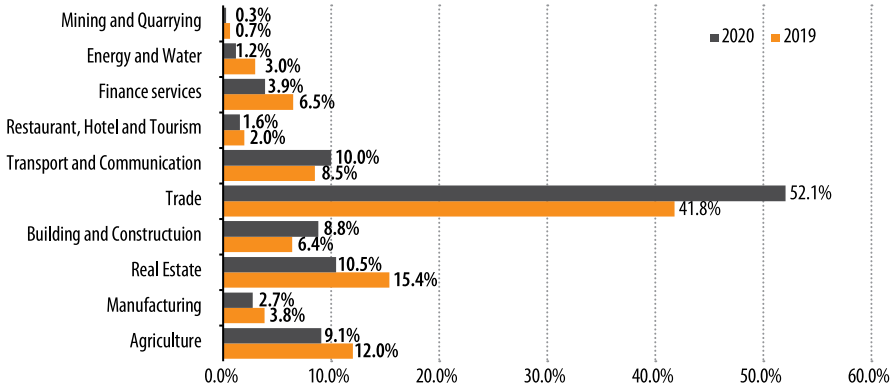
In 2020, the Government enacted the Public Finance Management (credit guarantee scheme) Regulations (2020). Consequently, an initial Kes 3 billion seed capital for the inaugural credit guarantee scheme was rolled out, with the participating banks expected to increase credit supply to the MSMEs[1].

1 The participating banks are: Absa, Co-Operative bank, Credit Bank, DTB, KCB, NCBA and Stanbic.

The implementation of the credit guarantee scheme underscores the significant role of banks in MSMEs financing, which is consistent with empirical work that has credited the banking sector as a key source of external finance for MSMEs across countries (Beck, Demirgüç-Kunt & Maksimovic, 2008; Beck, Demirgüç-Kunt & Martínez Pería, 2008; Tiriongo, 2019).

Furthermore, the CBK 2020 Survey report on MSME access to bank credit indicated that in 2019 and 2020, commercial and microfinance banks granted MSMEs loans worth Ksh.546 billion (CBK, 2021). While the overall credit supply to MSMEs is high, disaggregation by sectors (**Figure 1**) shows that the proportion of credit in some sectors is relatively low compared to other sectors. Enterprises in the trade, real estate, agriculture, transport and Communication, and building and construction are absorbing more credit from commercial and microfinance banks, while on the other hand, MSMEs operating in the hospitality, energy and water, mining and quarrying sectors

Figure 1: Sectoral Distribution of Credit to MSMEs, 2019 - 2020



Source: CBK 2020 MSME Survey

manifest low levels of credit (CBK, 2021).

Empirical literature on demand-side factors on MSMEs financing presents mixed and inconclusive results, as they tend to focus on a particular aspect. For instance, Hall et al. (2004) consider the impact of a firm's age on long-term and short-term debt decisions. The study established that a firm's age is positively related to long-term debt but negatively associated with short-term debt, a contrary result to MacanBhaird and Lucey (2010), who established a negative relationship between long-term debt and the age of the firm. In Ghana, Abor and Biekpe (2009) found that the firm's size has a significant positive relationship with the short-term debt ratio of SMEs. Other studies have focused on credit guarantee schemes (Bartoli et al., 2013; Allinson et al., 2013; Rocha et al., 2011), the education level of enterprise owners (Irwin and Scott, 2010; Kumar and Francisco, 2005) and others on the gender of the MSMEs owners (Fraser, 2005; Irwin & Scott, 2010).

In Kenya, studies on demand-side perspective on MSMEs financing are, to the best of our knowledge scope, very few and, with most of the studies on credit markets anchoring their arguments on the supply side perspectives. Tiriongo (2019) examines the credit allocation schemes with perspectives from credit providers and Regulatory Regimes in Kenya. Ngare et al. (2015) underpinned their study on lending in the agricultural sector; establishing that commercial banks' extension of agricultural credit is affected by the demand side's (especially small scale or rural farmer's) inability to meet the bank's credit policy.

This paper adds to the strands of growing literature on MSMEs credit demand perspectives (Hall et al., 2004; Fraser, 2005; Kumar and Francisco, 2005; Abor and Biekpe, 2009; Macan Bhaird and Lucey, 2010; Irwin & Scott, 2010; Rocha et al., 2011; Bartoli et al., 2013; Allinson et al., 2013); however, we diverge from these studies by comprehensively focusing on the demand side perspectives with a wholistic approach – contrary to the narrow approach prevalent in previous studies. Thus, with limited demand-side perspectives on MSMEs in Kenya, this paper seeks to bridge the research gap by examining the drivers of MSMEs in accessing bank credit using personal and business accounts. More specifically, the objective of this paper is: (i). To characterize the MSMEs decision to borrow, and (ii). To estimate the propensity of MSMEs to borrow using business accounts, personal accounts and other sources. We also assess the vulnerability of MSMEs to economic downturns.

The paper is presented in four sections. Following section one, which serves as the introduction, section two presents literature review exploring both the theoretical and empirical literature on MSMEs demand for credit. Thereafter, data description and overview of MSMEs characteristics and results is presented in section three. Finally, conclusions are presented in section four.

02 TWO

2.0 Literature Review

The industry dynamics significantly influence MSMEs financing behaviour. On this account, the static trade-off theory, agency theory, pecking order theory, life cycle theory, and alternative resources (or bootstrapping) explanations have emerged in a bid to explain demand perspectives on business financing decisions (Johnson and McMahon, 2005; Gebregziabher, 2009).

The Static Trade-off Theory of capital structure underpins the balance between the expected cost from financial distress and the tax benefit of debt service payment. On this account, a firm should borrow up to the point where the tax benefit from debt is equal to bankruptcy cost (Ross et al., 2000). Peirson et al (1995) argue that financial leverage should be related to the firm's observable characteristics, such as asset structure and business risk. Thus, considering all factors remaining equal, the absence of collateral will propel businesses with predominantly intangible assets to shy away from borrowing, contrary to those with immense tangible assets (Jordan et al., 1998; Michaelas et al., 1999). Variation in debt-to-equity ratios among MSMEs would be influenced by the enterprise owner's risk appetite and the industry of operation as the business risk typically varies across industries (Johnsen and McMahon, 2005).

Jensen and Meckling (1976) anchor the agency theory on the principal-agent relationship between equity holders and debt holders. According to the theory, principles have a higher agency cost because equity-controlled firms tend to invest sub-optimally in expropriating wealth from debt holders (Jordan et al., 1998), leading to an incremental risk for the principal (Gebregziabher, 2009). Hall et al. (2000) pointed out that agency costs may vary across industries and lead to inter-industry differences in financial structures. Further, MSMEs may fail to perform optimally, thereby giving rise to the problem of moral hazard (Tucker and Lean, 2003). This problem is prevalent among MSMEs because of high information asymmetry, which motivates financial institutions to design collateral incentives to mitigate the associated risks. As a result, MSMEs could forgo leverage-induced value creation to raise their risk profile (Gebregziabher, 2009).

The Pecking Order theory, developed by Myres and Majluf (1984), suggests that managers choose methods of financing according to a hierarchy that gives first preference to methods with the least potential information requirement (internally generated funds) and lowest preference to the form with the greatest potential information requirement (public equity offering) (Zoppa and McMahon, 2002). Additionally, Fama and French (2002) point out that firms have no incentive to issue debt under the pecking order hypotheses if they still have internal funds to finance their investments.

Weston and Birgham (1981) expound on the Life Cycle theory by distinguishing Life Cycle for growth and non-growth industries and between new and traditional industries. Further, Berger and Udell (1998) showed the dynamic financial needs of small business financing. Gebregziabher (2009) asserts that as small businesses become more experienced as time passes, they enhance information asymmetry. Moreover, Gregory et al. (2005) found that only firm size, as measured by total employees, could significantly determine whether to use inside financing instead of going to public equity or long-term financing.

Bootstrap financing builds from the premise that MSMEs exhaust the possibilities of self-financing before going to external financing needs. Ideally, this strategy entails acquiring and using resources without resorting to equity or debt financing (Van Auken, 2005). Johnsen and McMahon (2005) assert that small firms in capital-intensive industries, with traditionally high proportions of fixed assets, are less likely to use bootstrap financing, contrary to firms in less capital-intensive industries, since fixed assets act as collateral thereby simplify access to traditional sources of finance (Van Auken and Neeley, 1996).

Empirical studies have found that the age of the firm influences its debt structure, albeit mixed. For instance, Hall et al. (2004) established that age is positively related to long-term debt but negatively associated with short-term debt, while Esperanca et al. (2003) showed that age is negatively associated with both long-term and short-term debt. In addition, MacanBhaird and Lucey (2010) found a positive relationship between the firm's age and retained earnings but a negative relationship between long-term debt and the firm's age.

Convergence among studies on the impact of firm size on credit demand is evident, with results indicating a positive relationship between firm size and leverage. In Ghana, Abor and Biekpe (2009) found that the firm size has a significant positive relationship with the short-term debt ratio of SMEs. The size was also significantly and positively related to both long-term and short-term debt ratios of quoted firms. They concluded that relatively larger SMEs found it easier to access short-term credit (such as trade credits). The limitation of size in access to finance is attributed to information asymmetry, fewer assets to offer as collateral among small firms and the higher risk

involved in financing as small firms have a high failure rate compared to large firms (Pandula, 2011).

Credit Guarantee Schemes have proven beneficial as they help eliminate the financing gap faced by MSMEs because of market imperfections on the supply side. Moreover, studies contend that these schemes have been effective where they have been deployed. Bartoli et al. (2013), for example, examine the effects of the funds provided by Mutual Guarantee Institutions (MGIs) to small businesses during the peak of the financial crisis (2007–2009) in Italy, and he concludes that the program was effective. Consistent with this finding is the study by Allinson et al. (2013) in the United Kingdom who examined firm-level survey data collected during January to March in 2012, and Rocha et al. (2011) who looked at bank credit to SMEs in the Middle East and North Africa, using the data in 1996–2002 from a joint survey of the Union of Arab Banks and the World Bank, to detect the effect of partial credit guarantee (PCG) schemes.

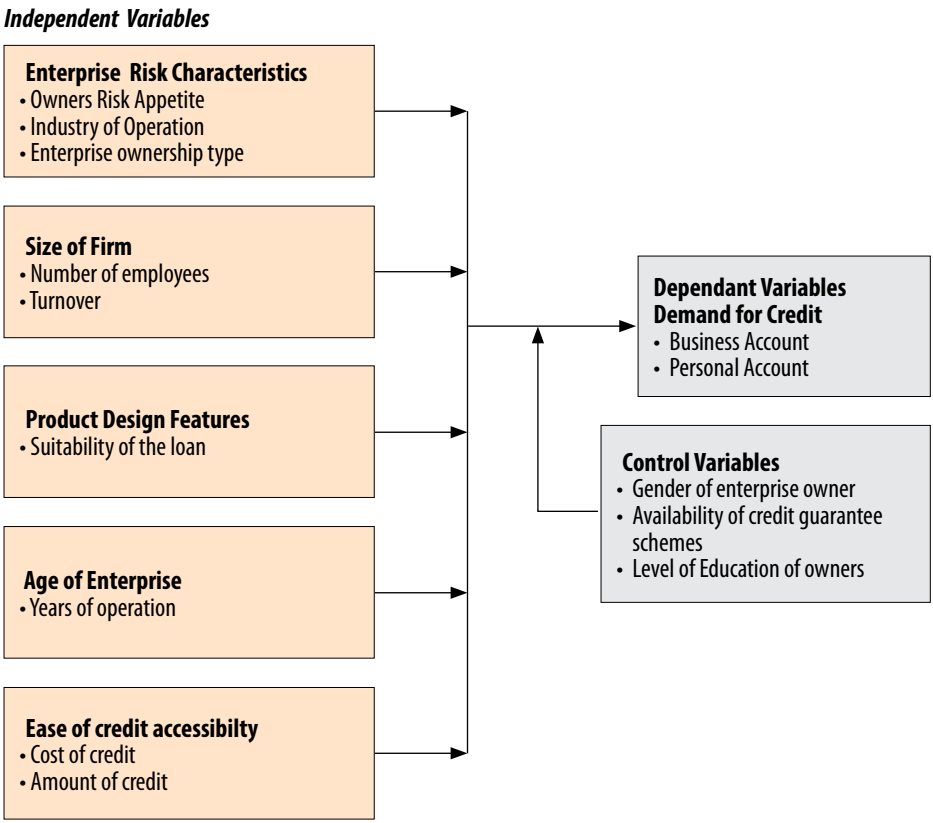
Education level of business owners provides an edge to firms seeking finance. Firms with highly educated managers would have more access to credit than firms with less-educated managers because of their ability to steer through complicated loan application procedures, present positive financial information, and/or build closer relationships with banks (Kumar, 2005). In the United Kingdom, Irwin and Scott (2010) used a telephone survey of 400 SMEs and established that graduates had the least difficulties raising finance from banks. More educated entrepreneurs can present positive financial information and strong business plans. They can maintain a better relationship with financial institutions compared to less educated entrepreneurs. In addition, Kumar and Francisco (2005) found that about 18 percent of the firms in which managers had incomplete primary education reported application procedures to represent the main constrain to loan application, compared to 5 percent of firms in which the manager had a post-graduate degree.

Gender of the MSMEs owners matters, but its influence on loan access is mixed. Fraser (2005) indicate that women may pay higher interest rates on term loans than men. In addition, Irwin & Scott (2010) found that women respondents found it easier to raise finance than men, confirming gender discrimination.

Summarizing theoretical and empirical literature (**Figure 2**), it is evident that enterprise risk characteristics, suitability of the loan, size of the enterprise, period that the enterprise has been in operation (age) and the ease of credit access have stood out as the key demand side factors that influence the enterprise demand for credit, and consequently their choice of account utilization. Moreover, the magnitude of these factors on MSMEs choices would be modified by the gender of enterprise owners, availability of credit guarantee schemes, level of education of owners and the registration status of the enterprises. While these empirical works shed light on the demand side perspectives on MSMEs financing, we acknowledge that their findings present significant gaps in three folds. First, the few studies undertaken

have looked at the various demand-side factors in isolation; hence, they do not give a comprehensive picture. Secondly, is the absence of studies that focus on developing country contexts-let alone Kenya, to explain the demand-side factors influencing the MSMEs financing decisions. Lastly, the studies do not attempt to estimate the magnitude of the demand-side factors of MSMEs financing decisions and the choices that MSMEs are confronted with.

Figure 2: Determinants of MSMEs Credit Demand



Source: Authors

03 THREE

3.0 Data Description and Overview of MSMEs Characteristics

The paper utilizes data drawn from a survey conducted by the Kenya Bankers Association (KBA) Centre for Research on Financial Markets and Policy (The Centre) between May 7 – 21, 2021. The survey aimed at shifting the spotlight on the MSMEs ecosystem and to bridge the information gap that exists between the MSMEs and the financial service providers. Thus, this study leveraged on prior collected data to empirically unravel the demand side perspectives of MSMEs financing in Kenya.

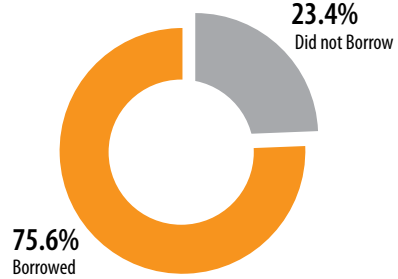
In undertaking the MSME survey, the Centre developed a structured questionnaire whose link was emailed to the MSMEs across Kenya, and consequently, the responses were filled online using Survey Monkey platform. Purposive sampling approach was adopted, whereby the owner-manager from enterprises taking part in the KBA Inuka Enterprise program were deemed reliable key informants. A total of 279 MSMEs responses were received.

Descriptive analysis is presented at the onset to characterize the enterprises account utilization choices and consequently evaluate their resilience or vulnerabilities to economic downturns. **Figure 3** presents the enterprises borrowing pattern, with the dichotomy of borrow-not borrow leaning more on the enterprises not borrowing (75.63 percent). Intuitively, this would reflect enterprises either having a reliable, lower cost alternative to run their operations, or possibly, it could be a pointer to the fear to lose their collateral in the event of default. On reviewing their interaction with their suppliers (**Figure 4**), it becomes apparent that they are utilizing trade credits. The most interesting aspect of this arrangement is the low interest, and in some cases, none, for those who make repayment within a short period (**Figure 5**). Among enterprises that sort credit (24.37 percent), high preference was on the utilization of personal loans, as other sources[2] of credit lay a distant third.

2 The other sources of credit encompass loan from saccos, chamas, family and friends.

Figure 3: MSMEs Borrowing Choices

A. Borrow-did not borrow dichotomy



B. Account utilization among enterprises that borrow

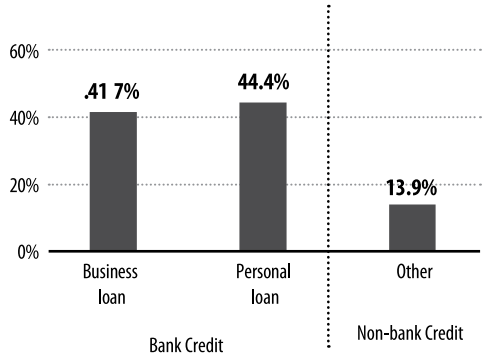
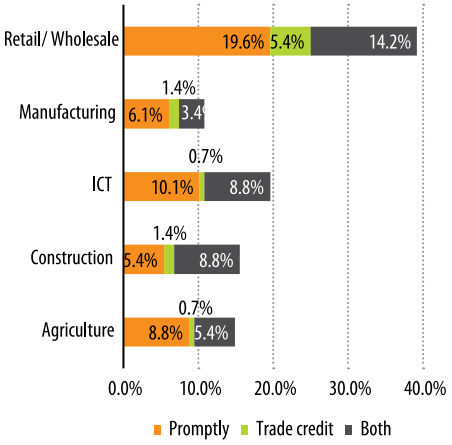


Figure 4: Account utilization and Collateral Requirements Across Sectors

A. Account utilization across the sectors



B. Collateral Requirement in loan application

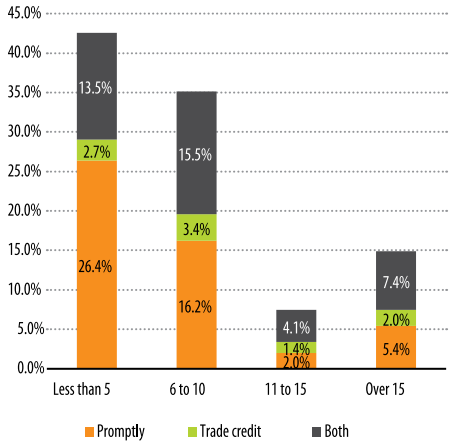
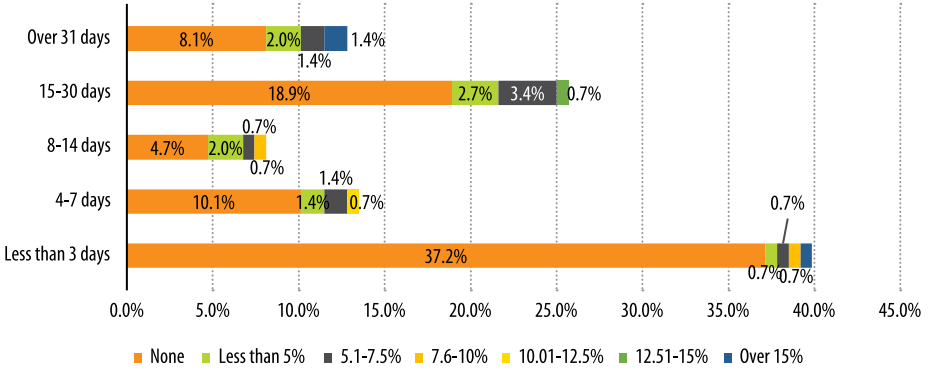


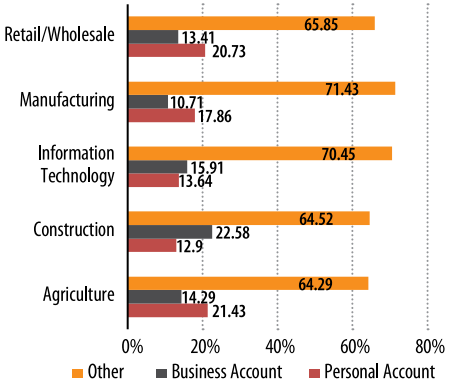
Figure 5: MSMEs Borrowing Choices



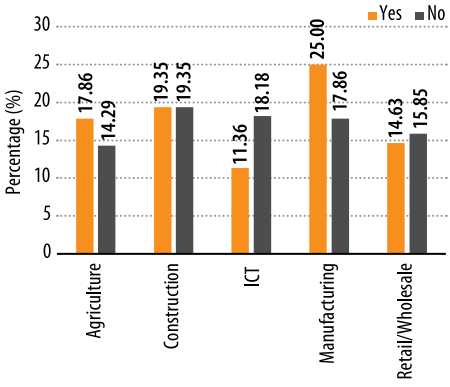
On disaggregating the enterprise account utilization along sectoral contrasts (**Figure 6A**), it is evident that borrowing from other sources, rather than using either personal or business loan, dominate in all sectors; an indication of some limitations in choices among enterprises, as well as the constraints present in accessing different forms of credit finance, in part due to the rigorous scrutiny processes that the enterprises would have to undergo to access credit. On this account, it would be expected that the collateral requirements would be more stringent on some sectors based on the perceived risk by the credit provider. However, as depicted in **Figure 6B**, it is striking to note that there are minor inconsistencies in

Figure 6: Account utilization and Collateral Requirements Across Sectors

A. Account utilization across the sectors



B. Collateral Requirement in loan application



the collateral requirements imposed by the financing institutions across sectors (**Figure 6B**).

Cognizant of the role of attitude and preferences towards risk in tilting the enterprise owner's decision when choosing among the alternative accounts, we assess the account utilization by enterprise owners based on their individual self-assessment of their risk appetite. In this regard, they are characterized as either risk averse, risk seeker or risk neutral. Evidently, while risk neutral enterprise owners have a huge footing in all the three credit categories (**Figure 7**), immense dominance is manifested on business loan (93.1 percent) where the risk seeker are edged out totally; pointing to the negative correlation between risk appetite and the utilization of business loan, that is, the more risk-seeking an enterprise owner is, the less likely he/she would utilize a business loan.

Given that economic downturns are associated with drops in profitability, and in a worst-case scenario, exits by enterprises, we analyze the vulnerability of MSMEs. First, we look at the overall resilience of the enterprises. Thereafter, we assess whether differences in size and the sector of operation disproportionately impact the enterprise resilience. As depicted in Figure 8A, apart from the enterprises that make less than kes 30,000 per month, there is a dip in profitability during a bad month by all the other enterprises. The results in panel 8B; testing the hypothesis that there is no difference in profitability between good and bad months, rejects the null hypothesis and concludes that the enterprises' profitability in good and bad months are significantly different.

Figure 7: Risk Preferences Versus Account Utilization

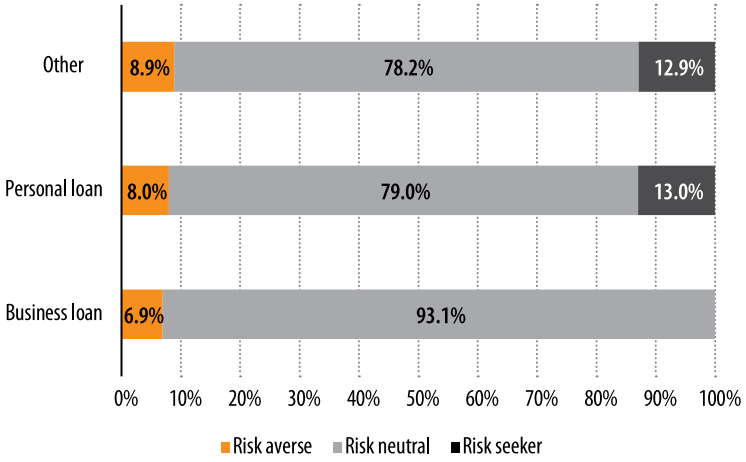
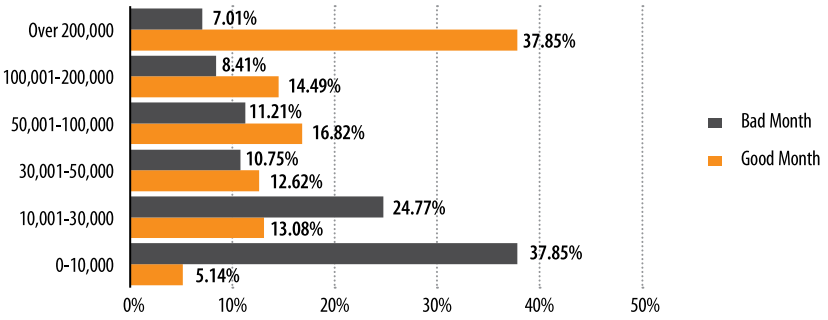


Figure 8: Enterprise Profitability on a Good and a Bad Month

A.Profitability on a good versus a bad Month



B. Test of profitability on a good versus a bad Month

Profitability in a bad month	Profitability in a good month						
	0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000	Total
0 – 10,000	11	0	0	0	0	0	11
10,001 – 30,000	0	28	0	0	0	0	28
30,001 – 50,000	0	0	27	0	0	0	27
50,001 – 100,000	0	0	0	36	0	0	36
100,001 – 200,000	0	0	0	0	31	0	31
Over 200,000	0	0	0	0	0	81	81
Total	**11**	**28**	**27**	**36**	**31**	**81**	**214**
	Pearson chi2(25) = 1.1e+03 Pr = 0.000						

Table 1 presents the results of the test in shifts in the number of MSMEs in various profits bands during good and bad seasons (Tests of proportions). The results of the test of the difference in proportions[3], reveal that enterprises

3 The hypothesis is that profitability in in good months exceeds profitability in bad months. Thus, the alternative hypothesis is Ha: diff > 0 [Pr(Z > z)], and very large p-value suggest that we reject the alternative and accept the null hypothesis (no difference).

with profotability of less that ksh. 30,000, that is, those in 0 – 10,000 and 10,001 – 30,000 categories do not significantly differ in good and bad times. The contrary is the case with the other categories, that is, those enterprises that attain profitability of over ksh. 30,001.

Table 1: Proportion Test of Profitability in a Good and a Bad Month

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0.039	0.100	0.097	0.129	0.111	0.290
		(0.012)	(0.018)	(0.018)	(0.020)	(0.019)	(0.027)
Bad Month		0.290	0.190	0.082	0.086	0.065	0.054
		(0.027)	(0.023)	(0.016)	(0.017)	(0.015)	(0.014)
Diff		-0.251	-0.090	0.014	0.043	0.047	0.237
		(0.030)	(0.030)	(0.024)	(0.026)	(0.024)	(0.030)
Under Ho:	Std. Err	(0.031)	(0.030)	(0.024)	(0.026)	(0.024)	(0.032)
	Z	-7.99	-3.004	0.593	1.640	1.945	7.403
	p>|z|	0.000	0.003	0.553	0.101	0.052	0.000
H_a: diff < 0 [Pr (Z < z)]		0.000	0.001	0.723	0.950	0.974	1.000
H_a: diff ! = 0 [Pr(|Z| > |z|)]		0.000	0.003	0.553	0.101	0.052	0.000
H_a: diff > 0 [Pr(Z > z)]		1.000	0.999	0.277	0.051	0.026	0.000
Number of observations	Good Month	279	279	279	279	279	279
	Bad Month	279	279	279	279	279	279

The standard errors are in parentheses

Profitability in good and bad times differ considerably along with the size of the enterprise (**Figure 9**). The proportion of medium-sized enterprises with profitability of over kes 200,000 drops from 92.73 percent in good times to 46.2 percent in bad times. The contractions were also evident in other profitability bands among the medium-sized enterprises and in micro and small-sized enterprises, albeit with a varying proportion.

Figure 9: MSMEs Profitability on a Good and a Bad Month

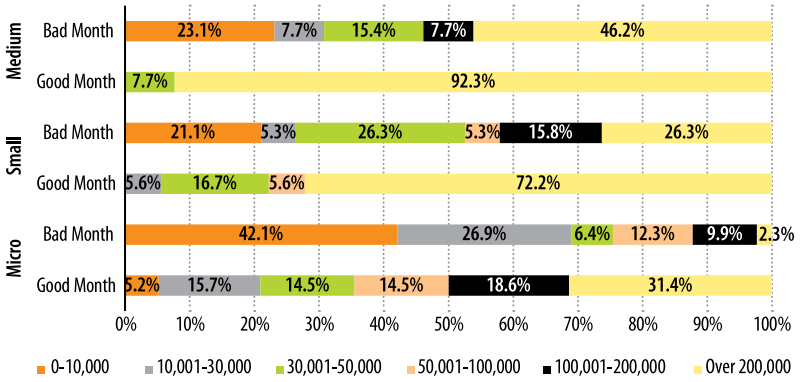


Table 2 highlights the results of testing the difference in proportions of enterprises in various profit categories (**Appendix1, 2** and **3**). The latter reveals a difference in profitability among micro-sized enterprises in good and bad months for those enterprises with profits of over kes 30,001. Additionally, among small-sized enterprises, enterprises in three profitability categories, that is, 0 – 10,000; 50,000 – 100,000 and 100,001 – 200,000, do not have statistically different profits between good and bad months. Lastly, among the medium-sized enterprises, profits differ significantly in good and bad months for those enterprises with a profitability of over kes 200,000.

Table 2: MSMEs Resilience to Profit Shifts in a Good and a Bad Month

		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Micro- sized enterprises	**Z value**	-7.507	-2.960	0.608	2.270	2.701	6.973
	P value	1.000	0.999	0.272	0.012	0.004	0.000
	Conclusion	No difference	No difference	Differs	Differs	Differs	Differs
Small- sized enterprises	**Z value**	-2.121	0.000	0.000	-1.809	-0.802	2.667
	P value	0.983	0.500	0.500	0.965	0.789	0.002
	Conclusion	No difference	Differs	Differs	No difference	No difference	Differs
Medium- sized enterprises	**Z value**	-1.8415	-1.0198	-	-1.020	-0.614	3.934
	P value	0.9672	0.8461	-	0.846	0.730	0.000
	Conclusion	No difference	No difference	-	No difference	No difference	Differs

Table 3 shows that there exists sectoral vulnerability of the enterprises with economic downturn. Across the sectors, the bad months have disproportionately impacted the enterprise profits, as depicted by large shifts of the MSMEs to lower profit categories. Table 4 highlights the key statistical results presented in appendix 4, 5, 6, 7 and 8 on the test of whether the proportion of enterprises in a given profit category differ in a good and bad month.

Table 3: Sectoral Profitability in a Good and a Bad Month, Percentage (%)

Profit	Agriculture		Construction		ICT		Manufacturing		Retail/Wholesale	
	Good	Bad	Good	Bad	Good	Bad	Good	Bad	Good	Bad
0-10,000	13.8	51.7	0.0	35.5	4.5	47.7	0.0	17.9	6.1	35.4
10,001-30,000	17.2	20.7	16.1	19.4	6.8	22.7	10.7	35.7	14.6	25.6
30,001-50,000	17.2	0.0	16.1	9.7	20.5	9.1	10.7	7.1	11.0	11.0
50,001-100,000	13.8	13.8	3.2	9.7	6.8	4.5	14.3	17.9	18.3	11.0
100,001-200,000	17.2	10.3	25.8	12.9	15.9	6.8	21.4	14.3	12.2	12.2
Over 200,000	20.7	3.4	38.7	12.9	45.5	9.1	42.9	7.1	37.8	4.9

The results show that across all sectors (**Table 4**), enterprises with profits of less than kes 30,000 are resilient to profit variability between good and bad months. More interesting to note is that, apart from Retail/Wholesale, all the other sectors manifest profit vulnerability between good and bad months among MSMEs with a profit of over kes 50,000 per month.

Table 4: Sectoral Resilience to Profit Shifts in a Good and a Bad Month

		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Agriculture	**Z value**	-3.078	-0.335	0.000	0.762	2.339	2.015
	P value	0.999	0.631	0.500	0.223	0.010	0.022
	Conclusion	No difference	No difference	No difference	Differs	Differs	Differs
Construction	**Z value**	-3.657	-0.332	-1.034	1.286	0.758	2.322
	P value	0.9999	0.630	0.850	0.099	0.224	0.010
	Conclusion	No difference	No difference	No difference	Differs	Differs	Differs

		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
ICT	Z value	-4.610	-2.103	0.461	1.344	1.502	3.830
	P value	1.000	0.982	0.323	0.090	0.067	0.0001
	Conclusion	No difference	No difference	Differs	Differs	Differs	Differs
Manufacturing	Z value	-2.343	-2.216	-0.364	0.698	0.469	3.086
	P value	0.990	0.987	0.642	0.243	0.320	0.001
	Conclusion	No difference	No difference	No difference	Differs	Differs	Differs
Retail/ Wholesale	Z value	-4.623	-1.753	1.326	0.000	0.000	5.146
	P value	1.000	0.960	0.093	0.500	0.500	0.000
	Conclusion	No difference	No difference	Differs	No difference	No difference	Differs

3.1 Model and Variable Description

Three choice models were estimated. The first model, which examines the likelihood of the enterprises to either borrow funds or not to borrow, is specified as follows:

$$P(Y=1 \mid X_1, X_2, \ldots X_8) = \emptyset(Z) \quad \ldots\ldots\ldots\ldots\ldots (1)$$

Where, $\emptyset(Z) = \emptyset(\beta_o + \beta_1 X_1 + \beta_2 X_2 + \cdots . + \beta_8 X_8)$, P is the outcome of the decision to either borrow or not for the k^{th} observation, $\emptyset$ is the standard cumulative normal, X_k is the vector of explanatory variables for observations k and β.

The second level of the analysis, which entails the modelling of dichotomy of borrowing from bank and non-bank sources, is specified as shown in **equation 2**:

$$P(Y=1 \mid X_1, X_2, \ldots X_8) = \pi(T) \quad \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where, $\pi(T) = \pi(\gamma_o + \gamma_1 X_1 + \gamma_2 X_2 + \cdots . + \gamma_8 X_8)$, p is the outcome of the decision to either borrow from a bank or nonbank channel for the k^{th} observation, π is the standard cumulative normal, X_k is the vector of

explanatory variables for observations k and β.

Lastly, **equation 3** models the bank account utilization along the dimensions of business vis a vis personal account.

$$P(Y=1 \mid X_1, X_2, \ldots X_8) = \varphi(W) \quad \ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where, $\varphi(W) = \varphi(\delta_o + \delta_1 X_1 + \delta_2 X_2 + \cdots + \delta_8 X_8)$, p is the outcome of the decision to either a business account or a personal account for the for the k^{th} observation, φ is the standard cumulative normal, X_k is the vector of explanatory variables for observations k and δ. **Table 5** presents the operating definitions of the explanatory variables used in **equation1, 2** and **3**.

Table 5: Operationalization of variables

Variable	Operational definition
Ln(age of the enterprise)	Numeric variable: the natural logarithm of the years the enterprise has been in operation.
Gender	Binary variable: 1 if male, 0 otherwise.
Risk preferences	
Risk neutral	Binary variable: 1 if risk neutral, 0 otherwise.
Risk averse	Binary variable: 1 if risk averse, 0 otherwise.
Risk seeker	Binary variable: 1 if risk seeker, 0 otherwise.
Industry	
Agriculture	Binary variable: 1 if agriculture sector, 0 otherwise.
Construction	Binary variable: 1 if construction sector, 0 otherwise.
Information Communication Technology (ICT)	Binary variable: 1 if ICT sector, 0 otherwise.
Manufacturing	Binary variable: 1 if manufacturing sector, 0 otherwise.
Retail/Wholesale	Binary variable: 1 if Retail/Wholesale sector, 0 otherwise.
Ease of credit access	Binary variable: 1 if ease of credit access is extremely/highly important, 0 otherwise.
Turnover	
0 - 500,000	Binary variable: 1 if turnover is 0 - Kshs 500,000 annually, 0 otherwise.
More than 500,000	Binary variable: 1 if turnover more than Kshs 500,000 annually, 0 otherwise.

Variable	Operational definition
Education	
Primary	Binary variable: 1 if primary education, 0 otherwise.
Secondary	Binary variable: 1 if Secondary education, 0 otherwise.
Tertiary	Binary variable: 1 if Tertiary education, 0 otherwise.
Registration status	Binary variable: 1 if registered, 0 otherwise.

3.2 Estimation Strategy

Alternative approaches exist to estimate discrete binary choice models: Linear Probability model, binary probit model, and binary logit model, with the trade-off between flexibility and ease of the estimation characterizing modelling approach adopted (Munizaga and Alvarez-Daziano, 2001). On the one hand, probit models assume a more realistic situation by allowing a correlation structure of the error terms. However, the estimation of these models can become very complex because of the underlying multidimensional integrals. On the other hand, the logit models which are distinguished by closed choice probabilities but, due to restrictive substitution patterns, that is, the Independence of Irrelevant Alternatives (IIA) assumption, are often not very realistic. Nevertheless, because of its ease in estimation logit models are favored. Their estimation is usually based on the multinomial logit (MNL) model (McFadden, 1973). To overcome the restrictive substitution assumptions between alternatives, various extensions of the MNL exist, all with the general solution of allowing correlations between the alternatives' error terms. The most widely known relaxation of the MNL model is the nested logit (NL) model (Williams, 1977), which can be derived from McFadden's (1978) generalized extreme value (GEV) model. The NL model allows the error terms of pairs or groups of alternatives to be correlated. However, the remaining restrictions on the equality of cross-elasticities between pairs of alternatives in or not in common nests may be unrealistic in important cases.

The idea of the nested logit model lies in the grouping of similar alternatives into nests (Figure 10), creating a hierarchical structure of the alternatives (Ben-Akiva and Lerman, 1985; Train, 2003). The error terms of alternatives within a nest are correlated with each other, and the error terms of alternatives in different nests are uncorrelated. The nested logit model differs from the standard logit model in that the error components of the choice alternatives do not necessarily need to have the same distribution. Thus, the nested logit model accounts for the fact that each alternative may have specific information in its unobservable utility component, which plays a role in the decision process. Subsets of alternatives may have

similar information content, such that correlations between pairs of alternatives may exist (Hensher et al., 2005). The classification of alternatives regarding their similarities into nests and the resulting tree structure does not have anything in common with a stochastic valuation of alternatives within the scope of a decision tree. Nested logit models do not define the process of decision-finding, but account for differences in variances in the unobservable utility components (Hensher et al., 2005). Given the need to mimic the decision-making process by the enterprise owners and the limitations on the data as it was pre-collected prior to the conceptualization of this study, thereby making nested logistic regression unsuitable to this modelling, a three-step probit model with sample selection (based on the selection model of Heckman, 1979) was adopted.

Figure 10: MSMEs Credit choices decision making process

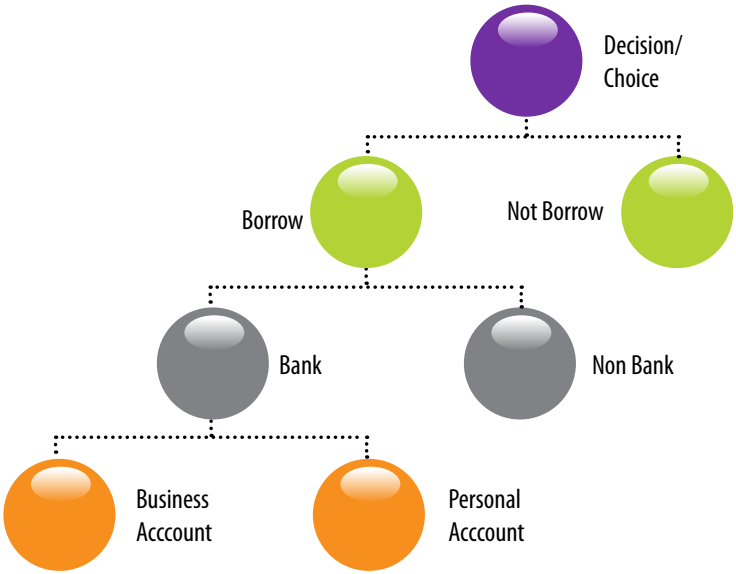


Table 6 presents the results of the three probit models estimated in stage 1, stage 2 and stage 3. Prior to running the three models, benchmark dummies were set for the categorical explanatory variables[4]. The results of stage one regression indicate that the enterprises' decision to borrow is sensitive to turnover levels, with the probability of borrowing increasing with a rise in turnover level. In addition, the decision to borrow is sensitive to the education level. Regarding education level, we find that enterprise owners with higher level of education are less likely to borrow. Ideally, the more educated an enterprise owner is, the more we would bet they would utilize various credit facilities. Perhaps, the contrary results could be speaking to the mismatch between education attainment and financial literacy awareness.

On borrowing from a bank versus non-bank institution, the period when the enterprise has been operational (age) tilts the scale in favour of borrowing from the bank. Furthermore, the level of turnover is significant, with results indicating that enterprises with high turnover are more likely to borrow from the bank. This result isn't surprising as based on the Life Cycle Theory, the longer an MSME has been in operation, the more transparent they are likely to be, and the easier it becomes for them to access bank credit. In addition, the high turnover levels signal prospects for future growths, and hence, lessens the hurdles that the enterprise would have encountered to access credit from the bank.

Finally on business versus personal account utilization, the gender of the entrepreneur is significant in influencing the entrepreneur's decision. Similarly, the industry of operation is significant, as the results indicate that enterprises in the ICT sector are more likely to utilize business accounts. Registered enterprises have a high probability to utilize business account, and consistent with the results of the previous two stages, the turnover levels also influence the choice between a business and a personal account.

4 Under the owner's risk preferences, Risk neutral is set as the benchmark category. For industry of operations category, agriculture is set as the benchmark. For the Turnover, less than Kes 500,000 is set as the benchmark. Lastly, on education, the primary level was the benchmark.

Table 6: Probit Regression Results

	Stage 1: Decision to borrow or Not		Stage 2: Decision to borrow from a bank or non-bank institution – probit regression estimates		Stage 3: Decision to borrow from a bank using a business account or a personal account	
	Credit decision (=1 if borrowed, 0 otherwise i.e., did not borrow)		Borrowing institution (=1 if bank-loan, 0 otherwise (i.e., non-bank borrowing)		Bank account utilization (=1 if business loan, 0 otherwise, i.e., personal loan)	
	Probit regression	Marginal effects	Probit regression	Marginal effects	Probit regression	Marginal effects
ln(age of the enterprise)	0.155	0.041	0.206*	0.069*	0.084	0.023
	(0.122)	(0.032)	(0.110)	(0.036)	(0.322)	(0.087)
Gender	-0.280	-0.074	-0.013	-0.004	1.087*	0.295*
	(0.236)	(0.062)	(0.223)	(0.075)	(0.648)	(0.159)
Risk preferences						
Risk averse	0.008	0.002	-0.333	-0.112	0.735	0.199
	(0.356)	(0.095)	(0.340)	(0.114)	(0.842)	(0.223)
Risk seeker	-0.053	-0.014	-0.366	-0.123	0	0
	(0.348)	(0.092)	(0.316)	(0.106)	(.)	(.)
Industry						
Construction	0.000	0.000	-0.168	-0.057	1.387	0.376
	(0.392)	(0.104)	(0.348)	(0.117)	(1.001)	(0.255)
ICT	-0.253	-0.067	-0.247	-0.083	1.890*	0.512**
	(0.383)	(0.101)	(0.328)	(0.110)	(0.990)	(0.234)
Manufacturing	0.298	0.079	-0.374	-0.126	0.231	0.063
	(0.392)	(0.104)	(0.362)	(0.121)	(0.951)	(0.257)
Retail/Wholesale	0.120	0.032	-0.097	-0.033	0.201	0.055
	(0.330)	(0.088)	(0.291)	(0.098)	(0.840)	(0.227)
Ease of credit access	0.039	0.010	-0.010	-0.003	-	-
	(0.219)	(0.058)	(0.198)	(0.067)	-	-

	Stage 1: Decision to borrow or Not		Stage 2: Decision to borrow from a bank or non-bank institution – probit regression estimates		Stage 3: Decision to borrow from a bank using a business account or a personal account	
	Credit decision (=1 if borrowed, 0 otherwise i.e., did not borrow)		Borrowing institution (=1 if bank-loan, 0 otherwise (i.e., non-bank borrowing)		Bank account utilization (=1 if business loan, 0 otherwise, i.e., personal loan)	
	Probit regression	Marginal effects	Probit regression	Marginal effects	Probit regression	Marginal effects
Turnover						
More than 500,000	0.522**	0.139**	0.367*	0.124*	-0.864*	-0.234*
	(0.223)	(0.057)	(0.203)	(0.067)	(0.504)	(0.122)
Education						
Secondary	-0.697	-0.185	-0.365	-0.123	-0.124	-0.034
	(0.736)	(0.194)	(0.713)	(0.240)	(1.501)	(0.407)
Middle-level tertiary	-1.043*	-0.277*	-0.665	-0.224	-0.410	-0.111
	(0.610)	(0.159)	(0.595)	(0.199)	(1.014)	(0.273)
Registration status	0.268	0.071	0.237	0.080	1.420***	0.385***
	(0.414)	(0.110)	(0.351)	(0.118)	(0.530)	(0.106)
Constant	-0.382		-0.272		-2.054	
	(0.792)		(0.743)		(1.658)	
Observations	279		214		47	
Log likelihood	-101.43404				-22.804807	
LR chi2(13)	19.88				18.50	
Prob > chi2	0.0982				0.0707	
Pseudo R2	0.0893				0.2886	

Note: Standard errors in parentheses. * Significance level at 10%, ** Significance level at 5%, *** Significance level at 1%

4.0 Conclusion

With most economies seeking to tap on MSMEs to navigate beyond the devastating impact of Covid-19, this paper understands the MSMEs demand-side credit perspectives. The empirical quest builds on growing strands of literature on MSMEs credit demand perspectives; however, its focus diverges from the previous studies by holistically examining the MSMEs demand-side financing perspectives. The theoretical literature is underpinned by the static trade-off theory, agency theory, pecking order theory, life cycle theory, and alternative Resources (or bootstrapping) explanations that have emerged to explain demand perspectives on business financing decisions. While significant empirical work has been undertaken on this front, it is evident that studies on demand-side factors on MSMEs financing present significant gaps in three folds. First, the few studies undertaken have focused on various factors in isolation; hence, they do not give an overall picture. Secondly, is the absence of studies anchored in the Kenyan context to explain the demand-side factors influencing the MSMEs financing decisions. Lastly, the studies do not attempt to estimate the magnitude of the demand-side factors of MSMEs financing decisions.

Against this background, this paper anchors its analytical work on a three-step probit model with sample selection to examine the choices on the utilization of business and personal accounts among enterprises. The chi-square test is deployed to test the variability of the MSMEs risk profile along the business cycle. Approximately a quarter (24.37 percent) of the enterprises sought for credit facility, out of which 41.67 percent chose business loan, 44.44 percent utilized the personal loan while 13.89 percent chose other sources, which included loan from saccos, chamas, family and friends. The heterogeneity of sectoral divergence on account utilization by the enterprises was unmasked. The results indicated that among those enterprises that utilize credit facilities, their choices were predominantly in favor of other forms of financing (Other than business and personal loans). Despite variability in sectoral risks predisposed to the enterprises, negligible variation was reported on the collateral requirements imposed by the

financing institutions across sectors. On account of the role of risk perception among the enterprise owners in influencing the account utilization behavior, it emerged that there exists a negative correlation between risk appetite and the utilization of business loan, that is, the more risk-seeking an enterprise is, the less it can access a business loan. Additionally, the enterprises manifested stability in risk profile amidst variability in the business cycle.

The results of the empirical models reveals that the level of MSMEs turnover affect the choice to borrow, who to borrow from and the type of loan to pursue (between personal and business loan). However, the tendency of MSMEs with turnovers of over Ksh 500,000 leaning more towards the utilization of personal over business accounts remains a puzzle, raising questions on whether there are opportunities for lenders to align the features/requirements of personal and business loans. Other findings were: (i) The age of enterprise is important for the decision to take a bank loan or other loans, with the implication that MSMEs need to have a long-term view over their businesses to be attractive to long-term funders (banks). (ii) Heterogeneity is evident across the industry as it emerges and important factor in credit choices, and thus, this calls for opportunities to streamline the business environment so that whatever attractive features ICT sector presents can be replicated in other sectors. (iii) Gender of MSME owner influences the use of a business or personal account for loans, as the results indicate men use their business accounts more than women, thereby signaling that woman remain disadvantaged in accessing business loans, and (iv) Registration status of MSMEs matters for accessing business loans. From the policy perspective, discussions around lessening the credit accessibility constraints imposed by turnover levels, the age of enterprise, industry of operation, gender and registration status of enterprises are key.

Areas of further studies

We recommend further studies on the following areas: (i) The understanding of what drives MSMEs with turnovers in excess of Ksh 500,000 to have preferences for personal over business loans. (ii). A study to consider the utilization of non-bank credit sources as it was outside the scope of this empirical quest.

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Appendices

Appendix 1:

Micro- sized enterprises proportion test of profitability in a good and a bad month

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0.044	0.109	0.105	0.145	0.109	0.226
		(0.020)	(0.022)	(0.020)	(0.027)	(0.013)	(0.020)
Bad Month		0.298	0.206	0.089	0.081	0.044	0.020
		(0.018)	(0.017)	(0.013)	(0.009)	(0.029)	(0.026)
Diff		-0.254	-0.097	0.016	0.065	0.065	0.206
		(0.027)	(0.028)	(0.024)	(0.028)	(0.032)	(0.032)
Under Ho:	Std. Err	(0.034)	(0.033)	(0.027)	(0.028)	(0.024)	(0.029)
	Z	-7.507	-2.960	0.608	2.270	2.701	6.973
	p>|z|	0.000	0.003	0.544	0.023	0.007	0.000
Ha: diff < 0 [Pr (Z < z)]		0.000	0.002	0.728	0.988	0.997	1.000
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.000	0.003	0.544	0.023	0.007	0.000
Ha: diff > 0 [Pr(Z > z)]		1.000	0.999	0.272	0.012	0.004	0.000
Number of observations	Good Month	248	248	248	248	248	248
	Bad Month	248	248	248	248	248	248

The standard errors are in parentheses

Appendix 2:
Small- sized enterprises proportion test of profitability in a good and a bad month

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0	0.056	0.056	0	0.167	0.722
		0	(0.054)	(0.054)	0	(0.088)	(0.106)
Bad Month		0.222	0.056	0.056	0.167	0.278	0.278
		(0.098)	(0.054)	(0.054)	(0.088)	(0.106)	(0.106)
Diff		-0.222	0	0	-0.167	-0.111	0.444
		(0.098)	(0.076)	(0.076)	(0.088)	(0.137)	(0.149)
Under Ho:	Std. Err	(0.105)	(0.076)	(0.076)	(0.092)	(0.139)	(0.167)
	Z	-2.121	0.000	0.000	-1.809	-0.802	2.667
	p>|z|	0.034	1.000	1.000	0.070	0.423	0.008
Ha: diff < 0 [Pr (Z < z)]		0.017	0.500	0.500	0.035	0.211	0.996
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.034	1.000	1.000	0.070	0.423	0.008
Ha: diff > 0 [Pr(Z > z)]		0.983	0.500	0.500	0.965	0.789	0.002
Number of observations	Good Month	18	18	18	18	18	18
	Bad Month	18	18	18	18	18	18

The standard errors are in parenthese

Appendix 3:
Medium- sized enterprises Proportion test of profitability in a good and a bad month

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0	0	-	0	0.077	0.923
		0	0	-	0	(0.074)	(0.074)
Bad Month		0.2307692	0.0769231	-	0.077	0.154	0.154
		(0.1168545)	(0.0739053)	-	(0.074)	(0.100)	(0.100)
Diff		-0.2307692	-0.0769231	-	-0.077	-0.077	0.769
		(0.1168545)	(0.0739053)	-	(0.074)	(0.124)	(0.124)
Under Ho:	Std. Err	(0.1253125)	(0.0754293)	-	(0.07)	(0.125)	(0.196)
	Z	-1.8415	-1.0198	-	-1.020	-0.614	3.934
	p>|z|	0.066	0.308	-	0.308	0.539	0.000
Ha: diff < 0 [Pr (Z < z)]		0.0328	0.1539	-	0.154	0.270	1.000
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.0655	0.3078	-	0.308	0.539	0.000
Ha: diff > 0 [Pr(Z > z)]		0.9672	0.8461	-	0.846	0.730	0.000
Number of observations	Good Month	13	13	-	13	13	13
	Bad Month	13	13	-	13	13	13

The standard errors are in parentheses

Appendix 4:
Agriculture- based enterprises

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0.138	0.172	0.138	0.172	0.172	0.207
		(0.064)	(0.070)	(0.064)	(0.070)	(0.070)	(0.075)
Bad Month		0.517	0.207	0.138	0.103	0	0.034
		(0.093)	(0.075)	(0.064)	(0.057)	0	(0.034)
Diff		-0.380	-0.034	0	0.069	0.172	0.172
		(0.113)	(0.103)	(0.091)	(0.090)	(0.070)	(0.083)
Under Ho:	Std. Err	(0.123)	(0.103)	(0.091)	(0.091)	(0.074)	(0.086)
	Z	-3.078	-0.335	0.000	0.762	2.339	2.015
	p>|z|	0.002	0.738	1.000	0.446	0.019	0.044
Ha: diff < 0 [Pr (Z < z)]		0.001	0.369	0.500	0.777	0.990	0.978
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.002	0.738	1.000	0.446	0.019	0.044
Ha: diff > 0 [Pr(Z > z)]		0.999	0.631	0.500	0.223	0.010	0.022
Number of observations	Good Month	29	29	29	29	29	29
	Bad Month	29	29	29	29	29	29

The standard errors are in parentheses

Appendix 5:
Construction- based enterprises

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0	0.161	0.032	0.258	0.161	0.387
		0	(0.066)	(0.032)	(0.079)	(0.066)	(0.087)
Bad Month		0.355	0.194	0.097	0.129	0.097	0.087
		(0.086)	(0.071)	(0.053)	(0.060)	(0.053)	(0.060)
Diff		-0.355	-0.032	-0.065	0.129	0.065	0.258
		(0.086)	(0.097)	(0.062)	(0.099)	(0.085)	(0.106)
Under Ho:	Std. Err	(0.097)	(0.097)	(0.062)	(0.100)	(0.085)	(0.111)
	Z	-3.657	-0.332	-1.034	1.286	0.758	2.322
	p>|z|	0.000	0.740	0.301	0.199	0.449	0.020
Ha: diff < 0 [Pr (Z < z)]		0.0001	0.370	0.151	0.901	0.776	0.990
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.0003	0.740	0.301	0.199	0.449	0.020
Ha: diff > 0 [Pr(Z > z)]		0.9999	0.630	0.850	0.099	0.224	0.010
Number of observations	Good Month	31	31	31	31	31	31
	Bad Month	31	31	31	31	31	31

The standard errors are in parentheses

Appendix 6:
Information and Communication Technology ¬- based enterprises

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0.045	0.068	0.068	0.159	0.205	0.455
		(0.031)	(0.038)	(0.038)	(0.055)	(0.061)	(0.075)
Bad Month		0.477	0.227	0.045	0.068	0.091	0.091
		(0.075)	(0.063)	(0.031)	(0.038)	(0.043)	(0.043)
Diff		-0.432	-0.159	0.023	0.091	0.114	0.364
		(0.082)	(0.074)	(0.049)	(0.067)	(0.075)	(0.087)
Under Ho:	Std. Err	(0.094)	(0.076)	(0.049)	(0.068)	(0.076)	(0.095)
	Z	-4.610	-2.103	0.461	1.344	1.502	3.830
	p>|z|	0.000	0.035	0.645	0.179	0.133	0.000
Ha: diff < 0 [Pr (Z < z)]		0.000	0.018	0.677	0.911	0.934	0.9999
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.000	0.036	0.645	0.179	0.133	0.0001
Ha: diff > 0 [Pr(Z > z)]		1.000	0.982	0.323	0.090	0.067	0.0001
Number of observations	Good Month	44	44	44	44	44	44
	Bad Month	44	44	44	44	44	44

The standard errors are in parentheses

Appendix 7:
Manufacturing- based enterprises

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0	0.107	0.143	0.214	0.107	0.429
		0	(0.058)	(0.066)	(0.078)	(0.058)	(0.094)
Bad Month		0.179	0.357	0.179	0.143	0.071	0.071
		(0.072)	(0.091)	(0.072)	(0.066)	(0.049)	(0.049)
Diff		-0.179	-0.25	-0.036	0.071	0.036	0.357
		(0.072)	(0.108)	(0.098)	(0.102)	(0.076)	(0.105)
Under Ho:	Std. Err	(0.076)	(0.113)	(0.098)	(0.102)	(0.076)	(0.116)
	Z	-2.343	-2.216	-0.364	0.698	0.469	3.086
	p>|z|	0.019	0.027	0.716	0.485	0.639	0.002
Ha: diff < 0 [Pr (Z < z)]		0.010	0.013	0.358	0.757	0.680	0.999
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.019	0.027	0.716	0.485	0.639	0.002
Ha: diff > 0 [Pr(Z > z)]		0.990	0.987	0.642	0.243	0.320	0.001
Number of observations	Good Month	28	28	28	28	28	28
	Bad Month	28	28	28	28	28	28

The standard errors are in parentheses

Appendix 8:
Retail/Wholesale - based enterprises

Variable		0 – 10,000	10,001 – 30,000	30,001 – 50,000	50,001 – 100,000	100,001 – 200,000	Over 200,000
Good Month		0.061	0.146	0.183	0.122	0.110	0.378
		(0.026)	(0.039)	(0.043)	(0.036)	(0.035)	(0.054)
Bad Month		0.354	0.256	0.110	0.122	0.110	0.048
		(0.053)	(0.048)	(0.035)	(0.036)	(0.035)	(0.024)
Diff		-0.293	-0.110	0.073	0	0	0.329
		(0.059)	(0.062)	(0.055)	(0.051)	(0.049)	(0.059)
Under Ho:	Std. Err	(0.063)	(0.063)	(0.055)	(0.051)	(0.049)	(0.064)
	Z	-4.623	-1.753	1.326	0.000	0.000	5.146
	p>|z|	0.000	0.080	0.185	1.000	1.000	0.000
Ha: diff < 0 [Pr (Z < z)]		0.000	0.040	0.908	0.500	0.500	1.000
Ha: diff ! = 0 [Pr(|Z| > |z|)]		0.000	0.080	0.185	1.000	1.000	0.000
Ha: diff > 0 [Pr(Z > z)]		1.000	0.960	0.093	0.500	0.500	0.000
Number of observations	Good Month	82	82	82	82	82	82
	Bad Month	82	82	82	82	82	82

The standard errors are in parentheses

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