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**Relationship Between Collateral Requirements and Access to Finance by
Small and Medium Enterprises in Kenya**

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ABSTRACT

The purpose of the study was to establish the relationship between Collateral Requirements and access to finance by Small and Medium Enterprises in Kenya. The study used both descriptive and inferential statistics. The specific objective of the study was to examine the relationship between collateral requirements and access to finance by SMEs in Kenya. The study used both correlational and descriptive survey design. Questionnaires were used collect data from the respondents. Purposive, Stratified and simple random sampling were used to draw a sample SMEs owners. The study used qualitative and quantitative data. The results indicated that the respondents were in agreement that collateral requirements determined access to finance by SMEs in Kenya. The study indicated that the SMEs faced challenges in accessing finance due to collateral requirement by banks. Coefficient of correlation between collateral requirements and access to finance by SMEs was -0.603. The regression model showed that collateral requirements explained 36.4%, of access to finance by SMEs in Kenya. The study concluded that reduction of collateral requirements by banks can improve access to finance by SMEs in Kenya.

Key words: Collateral Requirements, Small and Medium Enterprise, Access, Finance

1.0 INTRODUCTION

Collateral plays an important role in bank lending since it reduces the bank's loss in case a borrower defaults. The inclusion of collateral in a loan is costly for the lenders as well as for the borrowers. For the lenders, costs arise in valuing and screening collateral and in the event of repossession (Leeth and Scott, 1989). Therefore, the inclusion of collateral might have a negative impact on the profit of the banks (Bester, 1985). For the borrowers it might occasion opportunity costs as assets, that otherwise would have been used more productively, are tied up (Berger et al., 2011). Nevertheless, the inclusion of collateral in a loan can also increase the profit of the lender. According to the lazy bank theory of Manove et al. (2001), the provision of collateral may weaken the incentives of the banks to

thoroughly monitor a borrower and an investment project. This is related to lower screening costs which may increase the overall profits of a bank.

Collateral is also widely thought to mitigate problems arising from asymmetric information like adverse selection since it can be considered as substitute for information (Voordeckers and Steijvers, 2006; Berger et al., 2011a; Menkhoff et al., 2012; Steijvers et al., 2010). Collateral can play a disciplinary role for the borrowers in a way that borrowers get an incentive to use the money they received productively and not carelessly shift into riskier projects. This helps to reduce the risk of moral hazard for the lender (Manove et al., 2001).

However, many SMEs firms do not possess enough assets to cover the collateral requirements of banks. SMEs and start-ups are therefore more likely to experience credit rationing due to them under collateralization. Further, property prices often the source of collateral used by SMEs when borrowing from banks, have fallen, leaving borrowers with less security to pledge against prospective loans (Holton, McCann, Prendergast and Purdue, 2014). Thus, deficient collateral is one of the main reasons small firms are unable to obtain credit. Smaller firms are required to put up on average 152 percent of the loan value as collateral; medium firms need 154 percent. European Union (EU) countries average only 100 to 120 percent of the loan value (World Bank, 2008).

Gonas et al. (2004) examined the impact of information asymmetry. The authors used information about the borrowers, the lenders and the contract terms of 7,619 loans that had been issued between in the US. To measure the quality and quantity of information, they differentiated whether borrowers were exchange-listed or had a credit scoring grade. The author observed that firms without a rating more often pledged collateral than rated firms. The study also measured information in terms of whether borrowers were registered in the US. Those that came from the outside the US had more

often pledged collateral than firms from the US. These results confirmed the assumption that information asymmetries are positively related to the provision of collateral.

Berger et al. (2011) also concentrated on the impact of credit scoring systems on the reduction of information asymmetries and the provision of collateral in the US. The authors concluded that the use of credit scoring systems helped to overcome information asymmetries and lower the demand for collateral. Berger et al. (2011) inferred that the use of credit scoring technologies may mitigate credit restrictions especially for firms with asymmetric information problems and a lack of collateral since these systems reduced the need for collateral. This is elusive as the scoring technologies were based on the information. The existence and the use of these technologies alone will not reduce existing information asymmetries. Firms that cannot provide information will obtain a bad credit scorings and, therefore, still be required to provide collateral or even credit rationed.

2.0 Methodology

2.1 Research Design

The study used a mixed design that is, correlational and descriptive survey design. Kotler and Armstrong (2000) observed that this method is best suited for gathering descriptive information where the study wants to describe the state of affairs as they exist. The Correlation design on the other hand comprises of collecting data to determine whether, and to what extent, a relationship exists between two or more variables (Cohen and Manion, 1989). This design is therefore appropriate since the study intended to establish the relationship between collateral requirements and on access to finance by SMEs. A mixed research method on the other hand involves mix of both qualitative and quantitative research approaches within a stage of the study or across two of the stages of the research process. The study conducted a survey and use a questionnaire that was composed of multiple closed-ended or quantitative type items as well as several open-ended or qualitative type items.

2.2 Instrumentation and Data Collection

The study used primary data. Rudolph et al (2009) defined primary data as the original data which is originated for the purpose of the research at hand. Kothari (2004) describe primary data as those which are collected afresh and for the first time, and thus happen to be original in character. Louis, Lawrence and Morrison (2007) describes primary data as those items that are original to the problem under study while Ember and Ember (2009) describe primary data as data collected by the investigator in various field sites explicitly for a comparative study. The primary data collection procedure started with identifying the respondents and their accessibility. The availability of the questionnaires and competent research assistants was ascertained. The data were collected through a questionnaire which were administered by the researcher and his assistants. The questionnaires were administered preferably within the premises of the responding institutions to allow references where necessarily. Prior appointment was necessarily to allow the respondents to familiarize with the questions and make the necessarily reference.

2.3 Analysis of Data

The study used descriptive analysis, correlation analysis and regression analysis to analyse the data. The study used both qualitative and quantitative data as advocated for by Neuman (2000) and Babbie (2007). Qualitative data from open ended questions was analysed using content analysis while Statistical Package for Social Sciences (SPSS) software version 21 was used in running the statistical tests. SPSS was chosen because as indicated by Castillo (2009) it is user friendly and gives all the possible analysis. The categories of responses were identified, coded and entered into SPSS variable data sheet for both descriptive and quantitative analysis. Descriptive analysis generated measures of central tendency, that is, frequencies, percentages, means and standard deviation which were interpreted appropriately.

3.0 Empirical Results

The study sought to examine the relationship between collateral requirements and access to finance by SMEs in Kenya and the descriptive statistics are presented in Tables 1,2,3 and 4. The results in Table 1 show that 82.4% of the respondents indicated that bank requires collateral when a SME is applying for a loan while only 17.6% of the respondents indicated that the banks does not require a collateral. The study found that in order for banks to grant loans to SMEs they require the collateral which shows that there is a relationship between collateral requirement and access to finance by SMEs in Kenya.

The results in Table 2 shows that 29.5% of the respondents indicated that banks require land title deed as collateral, 27.9% indicated that banks require car log book as collateral, 24.7% indicated that the banks require business assets as collateral while 17.9% indicated the bank requires other types of collateral. This shows that the major types of collateral required by the banks are land title deed, car log books and business assets of which it is difficult for SMEs to provide. Thus the study found out that collateral requirements is compulsory for the SMEs to acquire credit, hence there is a relationship between collateral requirements and access to finance by SMEs in Kenya.

The results shown in Table 3 indicates that mmajority of the respondents (32.4%) indicated that they do not have assets to provide as collateral, 29.2% indicated that they have assets but they are not enough to be provided as collateral, 20.2% indicated that providing business assets as security hinders the use of such assets for other purposes while 18.3% indicated that the assets they assets they have are not accepted by banks as collateral. The findings of the study are supported by (Berger et al, (2011) who in their study found that the SMEs considered the opportunity costs of the assets, that otherwise would have been used more productively elsewhere instead of being tied up as collateral.

The study sought to establish the relationship between collateral requirement and access to finance by SMEs in Kenya. The descriptive statistics of respondents' opinions on the relationship between collateral requirements and access to finance by SMEs in Kenya is shown in Table 4. The results in this study revealed significant relationship between collateral requirement and access to finance by SMEs. The study revealed that 78.2% of the respondents agreed and strongly agreed that the high collateral requirements negatively affect their access to finance while 9.9 % disagreed and 11.9% were neutral. The mean score of the responses was 4.03 which indicate that majority of the respondents agreed with the statement on the assertion that the high collateral requirements negatively affect their access to finance

The respondents were required to indicate whether they feared to tie their assets by giving them as collateral in order to access to finance and 74.0% strongly agreed and agreed while only 12.5% disagreed and 13.5% did not take any position. The mean score of the responses was 3.94 which indicate that majority of the respondents agreed with the statement on the assertion that they do not want to tie their assets by giving them as collateral to access to finance. Majority of the respondents (67.3%) agreed that lack of collateral negatively affect their access to finance while 15.7% disagreed and 17.0% took a neutral position showing that a sizeable number of the respondents did not have collateral to provide to the bank in order to access finance. The mean score of the responses was 3.75 which indicate that majority of the respondents agreed with the statements on the assertion that their lack of collateral negatively affect their access to finance. that lack of documentation for most of the assets negatively affect my access to finance. Majority of the respondents (70.2%) agreed that unacceptability of their assets as collateral negatively affect their access to finance while 13.8% of the respondents disagreed and 16.0% took a neutral position. The mean score of the responses was 3.88 which indicate that majority of the respondents agreed with

the statement on the assertion that unacceptability of their assets as collateral negatively affect their access to finance. The study found that collateral requirements negatively affect the access to finance by SMEs in Kenya which is supported by Leeth and Scott (1989) who in their study found that the inclusion of collateral in a loan is costly for the lenders as well as for the borrowers where for the lenders, costs arise in valuing and screening collateral and in the event of repossession and for the borrowers it might occasion opportunity costs as assets are tied up by the bank.

4.0 DISCUSSION

The hypothesis of the study was that there is no significant relationship between collateral requirement and access to finance by SMEs in Kenya. This hypothesis can be tested through correlation and regression analysis between collateral requirement and access to finance by SMEs.

The results presented in Table 5 shows that there was a significant correlation between collateral requirement and access to finance by SMEs in Kenya, with p- value of 0.000 which is less than 0.01 and coefficient of correlation (R) of -0.603 while other independent variables are held constant. This implies that there was a significant relationship (60.3%) between collateral requirement and access to finance by SMEs. The negative R value implies that there is a negative strong relationship between the collateral requirements and access to finance by SMEs in Kenya, that is, as the banks increase collateral requirements by the SMEs the access to finance by the SMEs decreases. Thus the null hypothesis was rejected and the alternative hypothesis accepted. The study concluded that there is a significant negative relationship between information asymmetry and access to finance by SMEs in Kenya at 95% confidence level.

Regression analysis for collateral requirement with access to finance by SMEs was done and the model summary was presented in Table 6. The results indicated that there was relationship between collateral requirements and access to finance by SMEs in which R^2 was

0.364 implying that 36.4% of the variation in access to finance by SMEs was explained by collateral requirements. This shows that an increase in collateral requirements by banks by one unit causes a decrease in access to finance by SMEs by 0.603 of a unit. The adjusted R square of 0.358 means the collateral requirements without the constant explains 35.8% variation in access to finance by the SMEs. The remaining 64.2% variation in access to finance by the SMEs is explained by other variables which are not in the model.

The results for Analysis of Variance for collateral requirement with access to finance by SMEs is shown in Table 7 in which computed F-Statistics value was 14054.647 which is greater than critical value of 3.85 and p value was 0.000 which was less than 0.05 meaning that the relationship between collateral requirement and access to finance by SMEs was significant. Thus the null hypothesis was rejected and concluded that there was a significant strong relationship between collateral requirement and access to finance by SMEs in Kenya.

Table 8 shows beta coefficient summary in which the t-values are -8.084 and 118.552 with p-values being 0.000 which is less than 0.05 hence the model was statistically significant. The model was defined as $Y = 29.1 - 1.050X_2 + e$, indicating that every unit increase in collateral requirement leads to 1.050 decrease in access to finance by SMEs. This implies that collateral requirement negatively affects access to finance by SMEs in Kenya.

5.0 CONCLUSION

The objective of the study was to evaluate the relationship between collateral requirement and access to finance by SMEs in Kenya. The findings showed a significant and negative linear relationship between collateral requirements and access to finance by SMEs in Kenya meaning that increased

collateral requirements by banks reduces access to finance by SMEs. This implies that collateral requirement is a major factor which affects SMEs access to finance in Kenya. The findings revealed that collateral requirements affect access to finance by SMEs negatively.

The findings are supported by the coefficient of determination ($R^2 = 0.364$) which shows that the variations in access to finance by SMEs is explained by collateral requirements. The influence of collateral requirements on access to finance by SMEs is also statistically significant with the p value of less than 0.05 and hence the null hypothesis was rejected and the study concluded that there is a significant relationship between collateral requirements and access to finance by SMEs in Kenya. The findings are in line with the findings of Holton, McCann, Prendergast and Purdue (2014) who in their study concluded that many SMEs do not possess enough assets to cover the collateral requirements of banks and therefore are more likely to experience credit rationing due to them under collateralization. They also argued that property prices of the assets used by SMEs when borrowing from banks, may fall, leaving borrowers with less security to pledge against prospective loans.

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Table 1: Descriptive Statistics on Collateral Requirements

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------------------------------|------------------|----------------|----------------------|---------------------------|
| The bank requires collateral | 257 | 82.4 | 82.4 | 82.4 |
| The bank does not require collateral | 55 | 17.6 | 17.6 | 100.0 |
| Total | 312 | 100.0 | 100.0 | |

Table 2: Descriptive Statistics on the Type of the Collateral Required by Banks

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|--|------------------|----------------|----------------------|---------------------------|
| Land title deed | 92 | 29.5 | 29.5 | 29.5 |
| Car log book | 87 | 27.9 | 27.9 | 57.4 |
| Business assets (Machines, buildings, stock) | 77 | 24.7 | 24.7 | 82.1 |
| others | 56 | 17.9 | 17.9 | 100.0 |
| Total | 312 | 100.0 | 100.0 | |

Table 3: Descriptive Statistics on the Difficulties in Providing Security to Banks

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|------------------|----------------|----------------------|---------------------------|
| I do not have assets to provide as collateral | 101 | 32.4 | 32.4 | 32.4 |
| I have assets but they are not enough as collateral | 91 | 29.2 | 29.2 | 61.5 |
| Providing assets as security hinders the use of such assets for other purpose | 63 | 20.2 | 20.2 | 81.7 |
| The assets I have are not accepted by banks as collateral | 57 | 18.3 | 18.3 | 100.0 |
| Total | 312 | 100.0 | 100.0 | |

Table 4: Descriptive Statistics on Collateral Requirements

| | Strongly Disagree | Disagree | Somehow Agree | Agree | Strongly Agree | Mean |
|---|------------------------------|-----------------|--------------------------|--------------|---------------------------|-------------|
| The high Collateral requirements negatively affect my access to finance | 3.8 | 6.1 | 11.9 | 39.7 | 38.5 | 4.03 |
| Since I do not want to tie my assets by giving them as collateral it's difficult to access to finance | 5.8 | 6.7 | 13.5 | 36.2 | 37.8 | 3.94 |
| Lack of collateral negatively affect my access to finance | 9.9 | 5.8 | 17.0 | 33.7 | 33.7 | 3.75 |
| Unacceptability of my assets as collateral negatively affect my access to finance | 4.8 | 9.0 | 16.0 | 33.3 | 36.9 | 3.88 |

Table 5: Correlation between collateral requirement and Access to Finance

| | | collateral requirement | | Access to Finance |
|------------------------|---------------------|---------------------------|---------|-------------------|
| collateral requirement | Pearson Correlation | 1 | -.603** | |
| | Sig. (2-tailed) | | .000 | |
| | N | 312 | 312 | |
| Access to Finance | Pearson Correlation | -.603** | 1 | |
| | Sig. (2-tailed) | .000 | | |
| | N | 312 | 312 | |

** . Correlation is significant at the 0.01 level (2-tailed).

Table 6: Results for Regression Analysis for collateral requirement and Access to Finance

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1 | -.603 ^a | .364 | .358 | .17627 |

a. Predictors: (Constant), Collateral Requirement

b. Dependent Variable: Access to Finance by SMEs

Table 7: ANOVA Test for collateral requirement and Access to Finance

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|-----------|-------------------|
| 1 | Regression | 436.700 | 1 | 436.700 | 14054.647 | .000 ^b |
| | Residual | 9.632 | 310 | .031 | | |
| | Total | 446.332 | 311 | | | |

a. Dependent Variable: Access to Finance by SMEs

b. Predictors: (Constant), Collateral Requirement

Table 8: Test of Beta Coefficients on Collateral Requirement and Access to Finance

| Model | | Unstandardized | | Standardized | | |
|--------------|------------|-----------------------|-------------------|---------------------|----------|-------------|
| | | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | 29.1 | .036 | | -8.084 | .000 |
| | X2 | -1.050 | .009 | .603 | 118.552 | .000 |

a. Dependent Variable: Access to Finance by SMEs