

Levels of Bank Borrowing Preferences as a Source of Working Capital Finance Needs and the Financial Performance of SMEs in Cameroon

Vivian Tueam Bongfomo, Emmanuel Beyina, and Etienne Francois Eloundou

Laboratory of Economics and Applied Management, Department of Accountancy and Finance, Faculty of Economics and Applied Management, University of Douala, Cameroon

Copyright © 2024 ISSR Journals. This is an open access article distributed under the *Creative Commons Attribution License*, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT: Smes are expected to significantly play a substantial role in stimulating economic development for both developed and developing nations. While their access to bank financing has been widely studied in the empirical literature, the relationship between the levels of bank borrowing and financial performance has received negligible empirical attention. To address this gap, this article examines the relationship between bank borrowing levels as a source of working capital finance needs and the financial performance of SMEs in Cameroon. Specifically, (1) the effect of levels of bank borrowing on the profitability (GPM & ROE) of SMEs, and (2) the effect of levels of bank borrowing on the financial efficiency (OER & ATR) of SMEs in Cameroon. The study made use of the Cameroon World Bank Enterprise survey of 2016. The study's findings indicate that while increased bank borrowing positively impacts profitability, this effect intensifies from level 1 to level 2, then diminishes from level 3 to level 4. Regarding financial efficiency, SMEs bank borrowing exhibits both positive and negative effects. Specifically, borrowing at levels 1 and 2 enhances financial efficiency, whereas levels 3 and 4 diminish it. These results suggest that SMEs should restrict their bank borrowing to level 2 of their working capital finance needs for optimal financial performance.

KEYWORDS: Levels of bank borrowing, Financial Performance, SMEs, Cameroon.

1 INTRODUCTION

The importance of enhancing access to bank financing for small and medium size enterprises (SMEs) is well-documented, as it can significantly impact their working capital needs and financial performance (Abor & Biekpe, 2007; Adomako et al., 2016; Njeru et al., 2016). A good number of studies have highlighted the crucial role of bank financing in supporting the growth and development of SMEs. SMEs with a higher preference for bank borrowing tend to have greater access to external financing, which can enable them to invest in growth opportunities and expand their operations (Cheng & Cheng, 2020). This, in turn, can lead to improved financial performance as measured by indicators such as profitability, financial efficiency, growth, and liquidity. However, the main issue is what level of working capital finance needs is necessary for a suitable financial performance of SMEs in Cameroon. According to a 2020 study conducted by Cameroon's Ministry of SMEs, SMEs with access to bank exhibited on average, 25% higher sales and 30% greater profitability compared to those without bank financing (Ministry of SMEs, 2020). However, Cameroonian SMEs continue to face significant challenges in obtaining bank financing. A 2021 survey by the National Institute of Statistics found that only 20% of SMEs in Cameroon had access to bank loans (National Institute of Statistics, 2021).

The Cameroonian government has implemented measures to improve SMEs' access to bank financing. These efforts include the launch of a credit guarantee scheme and the establishment of a dedicated SME development bank. However, despite these initiatives, access to bank credit remains limited, with only around 10% of SMEs in the formal sector having successfully obtained bank loans (Ministry of Small and Medium-Sized Enterprises, 2020). While moderate levels of bank borrowing can benefit SMEs, excessive reliance on bank debt may have detrimental effects on their financial health and growth (Kamdem et al., 2019; Njeru et al., 2016). Existing research has primarily focused on the availability of financing options and general financial performance metrics (Beck & Demirguc-Kunt, 2006; Cosh et al., 2009). However, limited studies specifically address how the levels of bank borrowing influence the financial outcomes of SMEs. Research by Hossain (2020) suggests that understanding borrowing preferences can illuminate the ways in which SMEs manage their working capital needs. However, empirical evidence linking these preferences directly to financial performance remains scant. This

gap is particularly pertinent in developing economies, where SMEs constitute a significant portion of the business landscape yet frequently encounter unique financial constraints (Ayyagari et al., 2011).

From the theoretical viewpoint that underpins the understanding of the intricate relationships between working capital financing sources and the financial performance of SMEs, the pecking order theory proposes that firms follow a preferred hierarchy of financing options. This hierarchy prioritizes internal financing, such as retained earnings, as the top choice, followed by debt and then equity (Myers and Majluf, 1984). Additionally, the trade-off theory suggests that firms evaluate the benefits and costs associated with various financing sources to optimise their capital structure (Kraus and Litzenberger, 1973). From the Resource-Based View (RBV) perspective, SMEs that can effectively manage and combine their working capital finance sources, such as negotiating favourable terms with suppliers or securing preferential bank loan rates, may enhance their financial performance (Barney, 1991). This implies that SMEs that utilize an optimal mix of working capital finance sources, may achieve higher financial performance by balancing the pros and cons of each source.

Given the important role of SMEs for economic development in Cameroon and the potential risks associated with excessive bank borrowing, it is crucial to understand the optimal level of bank debt that can support the financial performance and growth of these enterprises. While research acknowledges the importance of working capital management (WCM) for the financial performance of SMEs, there is lack of consensus on the optimal level of working capital financing borrowed from banks to achieve strong financial performance. This ambiguity can lead to a suboptimal financial decision impacting both profitability and growth potential. As a result of this void, this study aims at answering the following question: what level of bank borrowing as a source of working capital finance needs is most conducive to maximizing financial performance for SMEs in Cameroon?

The rest of this article is organised as follows: section two presents a literature review, section three presents the methodology and data description, section four focuses on the presentation of empirical results, while section five concludes the study.

2 LITERATURE REVIEW

The relationship between the levels of borrowing from banks for working capital needs and the financial performance of SMEs has been extensively studied in the academic literature. Researchers have sought to understand the nuances of this relationship and how it may vary depending on the specific levels of bank borrowing. One of the key studies in this area is by Kira and He (2012), who investigated the optimal level of debt for SMEs Tanzania. They discovered an inverted U-shaped relationship between debt levels and firm performance, indicating that moderate bank borrowing can positively impact the financial performance of SMEs, found that there is an inverted U-shaped relationship between debt levels and firm performance, suggesting that moderate levels of bank borrowing can have a positive effect on SME financial performance, while excessive debt may have negative consequences.

Similarly, Serrasqueiro and Caetano (2015) examined the impact of debt levels on the profitability of SMEs in developed and developing countries. Their findings indicate that high levels of debt (over 76-100% PWCF) negatively impact the profitability of SMEs due to increased interest payment. Abdulsaleh and Worthington (2013) argue that high levels of debt can reduce the strategic and operational flexibility of SMEs, which can lead to a decline in their financial performance. They suggest that SMEs with high levels of bank borrowing may be less able to adapt to changing market conditions and take advantage of new opportunities.

Abor and Biekpe (2009) found an inverted U-shaped relationship debt levels and firm profitability among SMEs in sub-Saharan Africa. They discovered that moderate levels of bank borrowing (up to 50% of permanent working capital funding) can have a positive effect on the return on assets (ROA), but excessive debt levels (over 76-100% of PWCF) are detrimental to their financial performance. Agyei-Mensah (2011) investigated the working capital practices of SMEs in Ghana and found that firms with higher levels of bank borrowing for working capital needs tend to have lower liquidity and profitability ratios. This suggests that over-reliance on bank debt for working capital can negatively impact the short-term financial health and operational efficiency of Ghana SMEs.

Njeru et al. (2016) explored the determinants of capital structure among SMEs in Kenya. Their findings indicate that SMEs with high levels of bank borrowing (above 50% of PWCF) tend to have lower asset turnover ratios, which can be attributed to the increased interest expenses and reduced operational flexibility associated with excessive debt. In contrast, Kira and He (2012) suggest that at moderate levels of bank borrowing (1-50% of PWCF), increased access to capital can enable SMEs to invest in growth opportunities and more efficient operations, potentially leading to improved financial performance.

The empirical literature on SMEs suggests that there is an optimal level of bank borrowing for working capital needs, where the benefits of additional capital outweigh the costs. Moderate levels of bank debt (up to 50% of permanent working capital funding) can have a positive impact on financial performance. However, excessive reliance on bank borrowing (over 50% of PWCF) can be detrimental to the financial health and growth of SMEs.

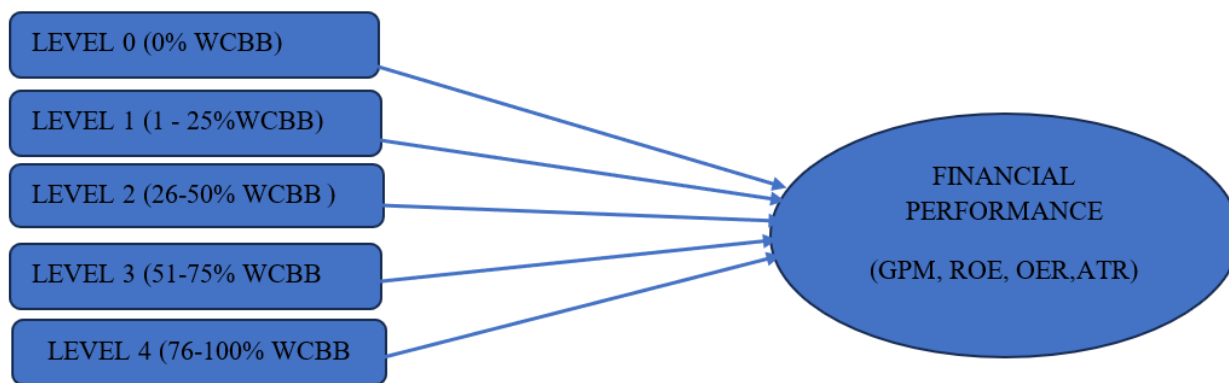
CONCEPTUAL FRAMEWORK

As illustrated in Figure 1, the level of borrowing from banks by SMEs directly impacts their financial performance. Several studies have found that even SME owner-managers who are least averse to losing control tend to prefer debt over equity as a source of external

financing for expansion (Hamza & Abubakar, 2022). This suggests that increased access to bank financing can be a critical driver of improved financial outcomes for SMEs. This is primarily because debt financing is perceived to cause less disruption and lowers the risk of the owner-manager losing control of the organization, compared to equity financing (Jude & Adamou, 2018; Daskalakis et al., 2013; Luukkonen et al., 2013). It is therefore critical to develop a framework that can guide the identification and analysis of SMEs' levels of bank borrowing financing preferences to enhance financial performance and save them from crumbling. In this wise, the following hypothesis is formulated.

H1: there is an inverted U-shaped relationship between debt levels preferences and SMEs financial performance (Profitability).

H2: Levels 1 & 2 debt level preferences are more suitable for financial performance (financial Efficiency) of SMEs.



Levels of Bank Borrowing preferences

Fig. 1. Conceptual framework. Constructed by authors

3 EMPIRICAL ANALYSIS

3.1 DATA AND STATISTICS

The research design employed in this study was cross-sectional, quantitative, and descriptive. This approach aligns with the positivist epistemology and adopts a causal research design within the realm of quantitative analysis. This preference for debt over equity financing is motivated by the fact that quantitative research is often used to investigate the relationships between variables, generating outcomes that are predictive, explanatory, or confirmatory (Williams, 2011).

The data utilized for analysis was obtained from WBES conducted in Cameroon in 2016. This survey represents the most recent for small and medium size enterprises carried out by the World Bank in Cameroon. The dataset comprises 275 SMEs that were surveyed in the Centre, Littoral, and West regions of Cameroon. These enterprises are classified into three categories: very small enterprises with fewer than five employees, small enterprises with five or more employees but fewer than 20, and medium-sized enterprises with employee numbers ranging from 20 to 100.

The 2016 WBES survey gathers data on various aspects of businesses, including their characteristics and the financial sources they utilize. These financial sources encompass both internal sources, such as equity, and external, such as banks, other financial institutions, supplier credits, and even sources like friends and relatives. However, it is important to note that this particular research focuses solely on formal debt financial sources obtained from banks.

OPERATIONALIZATION AND MEASUREMENT OF VARIABLES

According to Sekaran (2006), operationalization involves categorically defining a variable to make it measurable. In this study, the constructs under investigation were operationalized as outlined below, allowing the researcher to quantitatively measure their relationships. The various variables were conceptualized and operationalized as both dependent and independent variables.

OPERATIONALIZATION OF THE DEPENDENT VARIABLE (FINANCIAL PERFORMANCE)

The dependent variable in this study financial performance, is assessed by considering both profitability and financial efficiency. Profitability, which evaluates the ability of a business to generate income from its assets and assesses investment decisions based on its

capacity to generate net income (Brigham and Houston, 2019) is represented by two proxies: Gross Profit Margin (GPM) and Return on Equity (ROE).

Financial efficiency which refers to the degree to which a business effectively utilizes its resources or inputs, evaluates the ability of the company’s annual operating cost decisions to generate gross revenue. The assessment of a firm’s efficiency often involves utilizing specific ratios, such as the Asset Turnover Ratio (ATR), and Operating Expenses Ratio (OER) (Hasan Z., 2000).

Table 1. Operationalization of the dependent Variable (Financial Performance)

| Variable | Dimension | Measures | Author |
|----------------------------|----------------------|--|---|
| Financial Performance (FP) | Profitability | Gross Profit Margin (GPM) = $\frac{\text{Net Profit after tax}}{\text{shareholders Equity}}$ | Dogan, M. (2013) |
| | | Return on Equity (ROE) = $\frac{\text{Net Profit after tax}}{\text{shareholders Equity}}$ | Dogan, M. (2013) |
| | Financial Efficiency | Asset Turnover Ratio (ATR) = $\frac{\text{Total Revenue}}{\text{Total Assets}}$ | Deloof, M. (2003) |
| | | Operating Expense Ratio (OER) = $\frac{\text{Total Operating Expenses}}{\text{Total operating revenue}}$ | Capon, N., Farley, J. U., & Hoenig, S. (1990) |

Source: Author, 2024

OPERATIONALIZATION OF THE INDEPENDENT VARIABLES

In this article, the levels of bank borrowing preferences for SMEs were categorized into the following ranges:

0% Bank Borrowing Preference: some SMEs may have a zero borrowing preference, relying entirely on internal sources of funding, such as retained earnings or owner’s equity, to finance their operations and investments (Berger & Udell, 2006). These SMEs may be highly risk-averse or have a strong preference for maintaining full control and independence over their businesses (Cassar, 2004).

0% Bank Borrowing Preference: some SMEs may have a zero borrowing preference, relying entirely on internal sources of funding, such as retained earnings or owner’s equity, to finance their operations and investments (Berger & Udell, 2006). These SMEs may be highly risk-averse or have a strong preference for maintaining full control and independence over their businesses (Cassar, 2004).

1-25% Borrowing Preference: SMEs with a low borrowing preference are typically those that are well capitalized, have a strong cash flow, and are less reliant on external financing. These SMEs may prefer to use internal sources of funding to finance their operations and investments, borrowing only for specific purposes, such as short-term working capital needs or to take advantage of investment opportunities with high expected returns (Carbo-Valverde et al., 2016).

26-50% Borrowing Preference: These are SMEs with moderate borrowing preferences using a more balanced combination of internal and external funding sources to support their financial performance. They may borrow to supplement their internal resources, fund new projects, or maintain a healthy capital structure (Ryan et al., 2014).

51-75% Borrowing Preference: these are SMEs with a high borrowing preference, relying more on external funding sources such as bank loans, trade credit, or alternative financing options to finance their operations and investments. These SMEs may have a higher risk appetite to pursue growth opportunities (Cowling et al., 2012).

76-100% Borrowing Preference: These are SMEs with a very high borrowing preference, depending hugely on external funding sources, such as bank borrowing. These SMEs may have a high-risk profile, as their reliance on borrowed funds can make them more susceptible to changes in market conditions, interest rates, and credit availability (Cowling et al., 2012).

From the above categorisation, the different borrowing levels were transformed into a dummy or binary variable. Such as 0% of working capital borrowed from bank (PWCB0 = 1; 0 = otherwise); 1 - 25% of working capital borrowed from bank (PWCB1 = 1; 0 = otherwise); 26 - 50% of working capital borrowed from bank (PWCB2 = 1; 0 = otherwise); 51 - 75% of working capital borrowed from bank (PWCB3 = 1; 0 = otherwise); 76 - 100% of working capital borrowed from bank (PWCB4 = 1; 0 = otherwise). Other included variables are Age of the SMEs captured in years and the gender (G) of the head of the SME captured as; (Female = 1; 0 = otherwise).

ESTIMATION METHOD

The different multi-regression models are used to establish the form of the relationship between the dependent and the independent variable. That is the effects of the different levels of borrowing from banks as a source of WCF needs on the financial performance of SMEs, are stated as follows:

$$\text{Model-1: } \text{GPM} = \beta_0 + \beta_1 \text{PWCB1} + \beta_2 \text{PWCB2} + \beta_3 \text{PWCB3} + \beta_4 \text{PWCB4} + \beta_5 \text{Age} + \beta_6 \text{G} + \epsilon_1$$

$$\text{Model-2: } \text{ROE} = \beta_0 + \beta_1 \text{PWCB1} + \beta_2 \text{PWCB2} + \beta_3 \text{PWCB3} + \beta_4 \text{PWCB4} + \beta_5 \text{Age} + \beta_6 \text{G} + \epsilon_2$$

$$\text{Model-3: } \text{OER} = \beta_0 + \beta_1 \text{PWCB1} + \beta_2 \text{PWCB2} + \beta_3 \text{PWCB3} + \beta_4 \text{PWCB4} + \beta_5 \text{Age} + \beta_6 \text{G} + \epsilon_3$$

$$\text{Model-4: } \text{ATR} = \beta_0 + \beta_1 \text{PWCB1} + \beta_2 \text{PWCB2} + \beta_3 \text{PWCB3} + \beta_4 \text{PWCB4} + \beta_5 \text{Age} + \beta_6 \text{G} + \epsilon_4$$

From the above multiple regression equations, β_0 is the constant term while β_k represents the parameters of the different independent variables and ϵ represents the error term.

4 ANALYSIS OF RESULTS AND DISCUSSION

4.1 DESCRIPTIVE STATISTICS

This section presents the descriptive statistics of SMEs. To be more precise, the subsections present the descriptive statistics of both the dependent and independent variables used in the study.

DESCRIPTIVE STATISTICS OF THE DEPENDENT VARIABLES

Table 2. Descriptive statistics of the dependent variables

| Variable | Obs | Mean | Std | Min | Max |
|-------------------------------|-----|-------|-------|--------|-------|
| Gross Profit Margin (GPM) | 275 | 0.548 | 0.269 | -0.248 | 0.835 |
| Return on Equity (ROE) | 275 | 0.180 | 0.163 | -0.430 | 1.047 |
| Operating Expense Ratio (OER) | 275 | 0.832 | 0.064 | 0.344 | 1.256 |
| Asset Turnover Ratio (ATR) | 275 | 1.57 | 0.381 | 1.000 | 2.334 |

Source: Authors

The descriptive statistics in table 2 reveals that on average SMEs have a GPM of 0.5485, with a minimum value of -0.2486 and a maximum value of 0.835. This is an indication that on average, SMEs retain approximately 54.85% of their revenue as gross profit after deducting the direct cost associated with producing goods or delivering services. The standard deviation of 0.269 measures the variability or dispersion of the gross profit margins within the dataset. It suggests that the gross profit margins of the SMEs exhibit a moderate degree of variability around the mean. Some SMEs may have gross profit margins above the mean, while others may have margins below the mean. The minimum value of -0.248 indicates the lowest gross profit margin observed in the dataset. A negative value for the gross profit margin implies that some SMEs are incurring losses rather than generating profits. This could be due to various factors such as high production costs, pricing issues, or inefficient operations. The maximum value of 0.835 represents the highest gross profit margin observed in the dataset. It indicates that at least one SME in the dataset achieved a gross profit margin close to 100%. This suggests that some SMEs are highly efficient in controlling their production costs or have effective pricing strategies that result in a significant portion of their revenue being retained as gross profit.

The ROE statistics suggest a mix of high-performing and struggling SMEs, with an average value of 0.1809. The minimum ROE of -0.4307, suggest that some SMEs are experiencing negative returns on equity and the maximum ROE of 1.0471, suggests a very high return on equity. The wide range from highly negative to extremely positive ROE points to significant heterogeneity in financial performance across the sample of SMEs.

The mean OER of 0.8320 indicates that on average, SMEs in the sample have operating expenses that are 83.20% of their total revenue. This suggests that SMEs are spending a significant portion of their revenue on operating expenses, leaving a relatively small portion as net income. The minimum OER of 0.3441 indicates that some SMEs in the sample have operating expenses that are only 34.41% of their total revenue. This is a very low OER, suggesting these SMEs are highly efficient and can keep their operating expenses well below their revenue. The maximum OER of 1.256 suggests that a few SMEs in the sample have operating expenses that exceed their total revenue. This implies that these SMEs are operating at a loss, with their operating expenses being 25.6% more than their revenue. However, the low variability shows most SMEs have similar cost structures. The presence of both very low and extremely high OER values suggests a mix of highly efficient and poorly performing SMEs in terms of managing operating expenses.

The descriptive statistics reveal a mean ATR of 1.57 which is a reasonably good ratio, showing that SMEs are effectively converting their assets into revenue. The presence of a 1.000 minimum ATR and a high 2.334 maximum ATR suggests a range of asset utilization performance across the sample. Conclusively on the descriptive statistics of the dependent variables, the data suggests a diverse sample of SMEs with varying levels of profitability and financial efficiency. The presence of negative values for GPM and ROE indicates that some SMEs are struggling, while the high maximum values for ROE and ATR suggest that some SMEs are highly successful. The relatively low variability in OER suggests that the SMEs have a similar approach to managing their operating expenses. Figure 2 gives a quick view of the different measures across the average, minimum and maximum values.

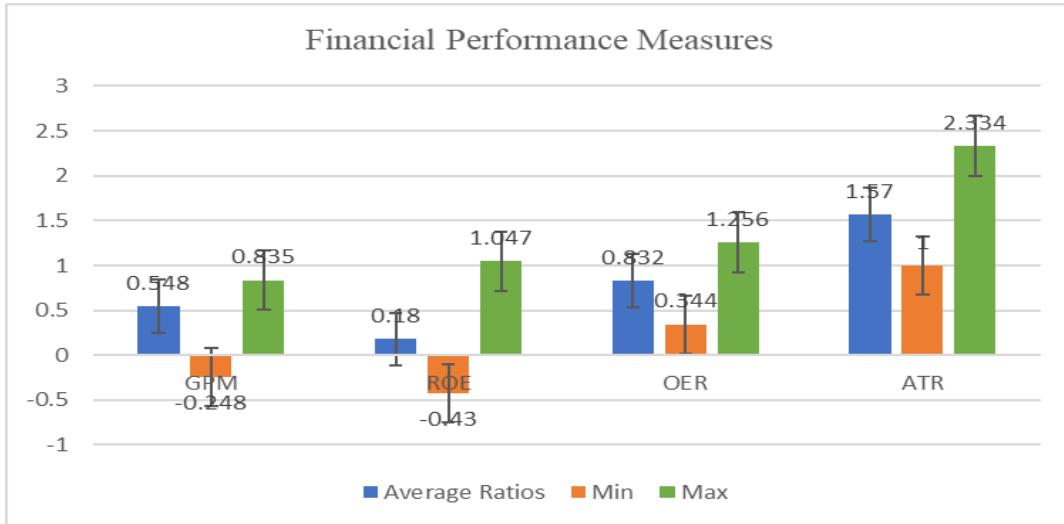


Fig. 2. Financial Performance Measures. Source by authors

DESCRIPTIVE STATISTICS OF THE INDEPENDENT VARIABLES

Table 3. Descriptive statistics of the different independent variables

| Variable | Obs | Mean | Std. Dev | Min | Max |
|-------------------|-----|-------|----------|-----|-----|
| PWCB0 (0%) | 275 | 0.771 | 0.4210 | 0 | 1 |
| PWCB1 (1-25%) | 275 | 0.011 | 0.1041 | 0 | 1 |
| PWCB2 (26 – 50%) | 275 | 0.098 | 0.2981 | 0 | 1 |
| PWCB3(51 – 75%) | 275 | 0.040 | 0.1963 | 0 | 1 |
| PWCB4 (76 – 100%) | 275 | 0.018 | 0.1339 | 0 | 1 |

Source: Authors

The descriptive statistics from Table 3 above reveal that out of the total sample observed, about 77% of the SMEs had no borrowings from banks, only about 1% of the SMEs had a level of borrowing from banks between (1 – 25%), about 10% of them had a borrowing level between (26 -50%), about 4% had a level of (51 – 75%) and finally about 2% had a borrowing level between (76 -100%) constituting part of their WCFN. Looking at the SMEs that did have access to bank borrowing, the statistics show that most of them (the majority around 10%) had a borrowing level between 26-50% of their working capital funding. Figure 3 below gives a quick view of the different levels of borrowing from banks by SMEs.

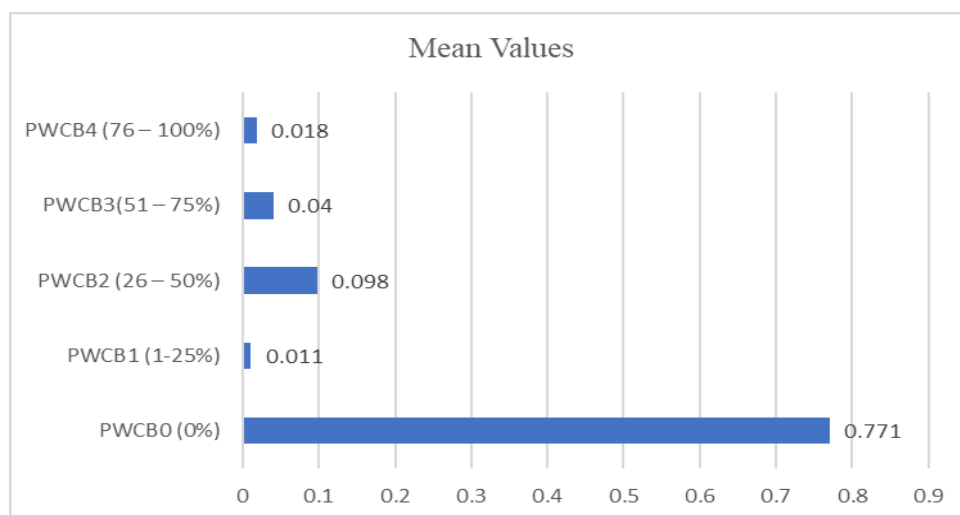


Fig. 3. Levels of Borrowing from Banks by SMEs. Source by authors

4.2 PRETEST OF THE VARIABLES UNDER STUDY

The presence and extent of multicollinearity in this study were assessed through pairwise correlation analysis. Multicollinearity is the occurrence of high intercorrelations among two or more independent variables in a multiple regression model. This phenomenon can distort or mislead predictions and interpretations of the dependent variable within a statistical framework. This test will be used to assess the association between the different levels of PWCB table 4.

Table 4. Pairwise Correlation matrix

| | PWCB1 | PWCB2 | PWCB3 | PWCB4 | Age | Gender |
|--------|---------|---------|---------|---------|---------|--------|
| PWCB1 | 1.0000 | | | | | |
| PWCB2 | -0.0347 | 1.0000 | | | | |
| PWCB3 | -0.0214 | -0.0674 | 1.0000 | | | |
| PWCB4 | -0.0143 | -0.0449 | -0.0278 | 1.0000 | | |
| Age | 0.0152 | 0.0502 | 0.0150 | 0.0462 | 1.0000 | |
| Gender | 0.0313 | 0.0480 | 0.0231 | -0.0203 | -0.0540 | 1.0000 |

Source: Authors

Generally, from Table 4 above, there is no high correlation among the variables given that the highest relationship of -0.0674 that exists between level 2 and level 3 is lower than the threshold of 0.8 suggested by Gujarati (2004). This therefore indicates the high predictive power of each independent variable on the dependent variable.

4.3 PRESENTATION OF RESULTS AND DISCUSSION

Table 5 presents the effects of the different levels of percentage working capital borrowed from banks (PWCB) on the financial performance of SMEs. The results of the F- statistics indicate that the model is globally significant.

Table 5. Estimates of the effects of PWCB levels on financial performance of SMEs

| Variables | Method of Estimation (OLS) | | | |
|--|----------------------------|-----------------------|-------------------------------|----------------------|
| | Profitability Measures | | Financial Efficiency Measures | |
| | GPM (1) | ROE (2) | OER (3) | ATR (4) |
| PWCB borrowed from banks: 1 – 25% (yes=1 and 0 = otherwise) | 0.1185*** (0.046) | 0.1662*** (0.1817) | 0.0661*** (0.009) | 0.0861** (0.037) |
| PWCB borrowed from banks: 26 – 50% (yes=1 and 0 = otherwise) | 0.1521*** (0.0238) | 0.2589*** (0.0636) | 0.092*** (0.003) | 0.109*** (0.0112) |
| PWCB borrowed from banks: 51 – 75% (yes=1 and 0 = otherwise) | 0.0421** (0.0024) | 0.0587** (0.0065) | -0.138*** (0.005) | -0.249*** (0.0247) |
| PWCB borrowed from banks: 76 – 100% (yes=1 and 0 = otherwise) | 0.0129** (0.0017) | 0.0296** (0.0013) | -0.224*** (0.073) | -0.356*** (0.0367) |
| Age (Continuous) | 0.1323*** (0.0017) | 0.2421*** (0.0013) | 0.2164 (0.375) | 0.1170*** (0.0367) |
| Gender (female = 1; 0 = otherwise) | 0.1038*** (0.0017) | 0.1916** (0.0013) | 0.1424 (0.473) | 0.2056 (0.2367) |
| Constant | 0.592*** (0.019) | 0.7496*** (0.0207) | 0.481*** (0.011) | 0.397*** (0.0192) |
| R ² | 0.154 | 0.252 | 0.125 | 0.181 |
| F – Stat [df; p-val] | 4.32 [4; 000] | 22.76 [4; 000] | 3.41 [4; 000] | 3.66 [4; 000] |
| Number of Observations | 275 | 275 | 275 | 275 |

Source: By the authors with STATA 15.1. Notes: ***, **, and * are 1, 5, 10 percent significance levels. The values in parentheses are the standard errors.

Table 5 displays the results for the effects of levels of borrowing from banks on the different measures of financial performance of SMEs. Columns 1, 2, 3, & 4 host estimates of the effects of levels of borrowing from banks on the GPM, ROE, OER and ATR respectively. A glimpse in column 1 reveals that all levels of borrowing from banks have a positive and statistically significant effect on GPM. This effect increases as we move from level 1 to level 2 and decreases as we move from level 3 to level 4. In particular, SME's engagement in borrowing from banks between (1 - 25%), (26 - 50%), (51 - 75%) and (76 - 100%) are 11.85, 15.16, 4.2 and -1.3 percentage points more likely to increase GPM respectively, compared to their non-engagement in borrowing from banks.

The results in column (2) show the effects of the different levels of working capital borrowed from banks on the ROE of SMEs. The results reveal that all the levels correlate positively and statistically significant with ROE. This effect increases as we move from level 1 to level 2 and decreases from level 3 to level 4. In particular, SMEs' engagement in borrowing from banks at levels 1, 2, 3 and 4 led to an increase in ROE in the orders of 16.6%, 25.9%, 5.9%, and 2.9% respectively compared to those that do not engage in borrowing from banks.

Columns (3), host the results of the effects of different levels of bank borrowing on OER. Level 1 & 2 has a positive and significant effect on OER while levels 3 & 4 have significant and positive effects on OER. All the different levels of PWCFB are significant and negatively affect OER. The effects are decreasing as we move from levels 1 to level 4. In particular, SME's engagement in borrowing from banks at (1 -25%), and (26 -50%), are 6.1, and 9.2 percentage points more likely to increase OER while borrowing at (51 -75%) and (76 - 100%) are 13.8 and 22.4 percentage points more likely to reduce OER respectively, compared to their non-engagement in borrowing from banks.

The research findings in column 4 suggest that the level of working capital borrowing (WCB) from banks has a mixed effect on the asset turnover ratio (ATR) SMEs: SMEs that engage in borrowing from banks at the 1-25% and 26-50% levels of their permanent working capital funding (PWCF) experience an increase in their ATR by 8.6 and 10.9 percentage points, respectively, compared to SMEs that do not engage in any bank borrowing. This indicates that moderate levels of bank borrowing can influence positively asset utilization efficiency of SMEs, as the additional capital can be used to finance more productive assets. SMEs that engage in borrowing from banks at the 51-75% and 76-100% levels of their PWCF experience a reduction in their ATR by 24.9 and 35.6 percentage points, respectively, compared to SMEs that do not engage in any bank borrowing. This suggests that as the level of bank borrowing increases beyond a certain threshold, the negative effects, such as higher interest expenses, reduced operational flexibility, and increased financial distress risk, can lead to a decline in the asset utilization efficiency of SMEs.

Other included variables such as age and gender of the head of the enterprise reveals a positive and significant relationship with GPM and ROE. In particular, increasing age by a year of the SME leads to an increase of 13.23 and about 24 percentage points in GPM and ROE

respectively, while SMEs with a female head is associated with an increase in GPM and ROE compared to SMEs headed by their male counterpart.

Figure 4 below reveals that the higher impact of borrowing levels on ROE compared to GPM may suggest that SMEs with a higher reliance on bank financing have a stronger focus on managing their financial structure and capital allocation rather than solely optimizing their operational efficiency and profitability (Cassar & Holmes, 2003). While their growth-oriented strategies may not immediately impact the firm’s GPM, they can have a more significant effect on the overall ROE, as the borrowed funds are leveraged to generate higher returns on the equity Capital (Cassar & Holmes, 2003).

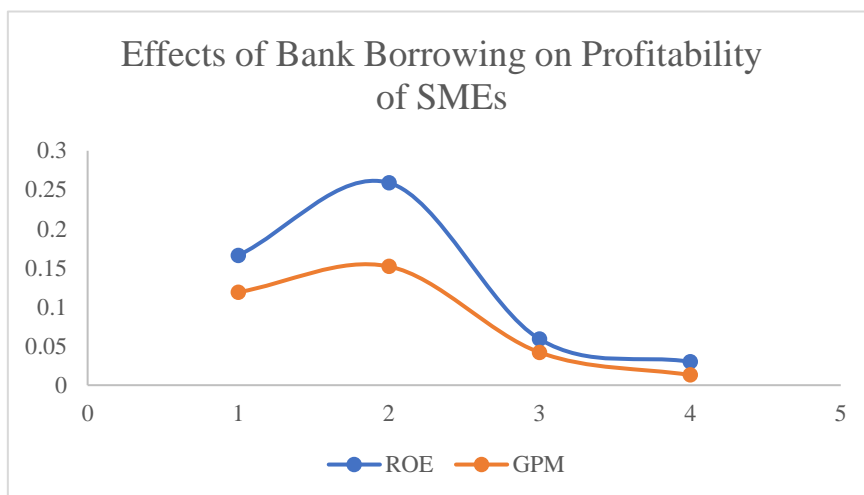


Fig. 4. Effects of Bank Borrowing on Profitability of SMEs. Source by authors

A glance on figure 5 comparing the effects of the different levels of bank borrowing on OER and ATR, suggest that at levels 1 & 2 levels of bank borrowing, SMEs focused more on efficiently utilizing their assets to generate sales revenue, as reflected by the higher effect on the ATR (Nunes et al., 2013). While at higher levels of bank borrowing SMEs may be allocating a significant portion of their resources to servicing their debt obligations, such as interest payments, and loan repayments which can contribute to a higher OER (Serrasqueiro & Caetano, 2016).

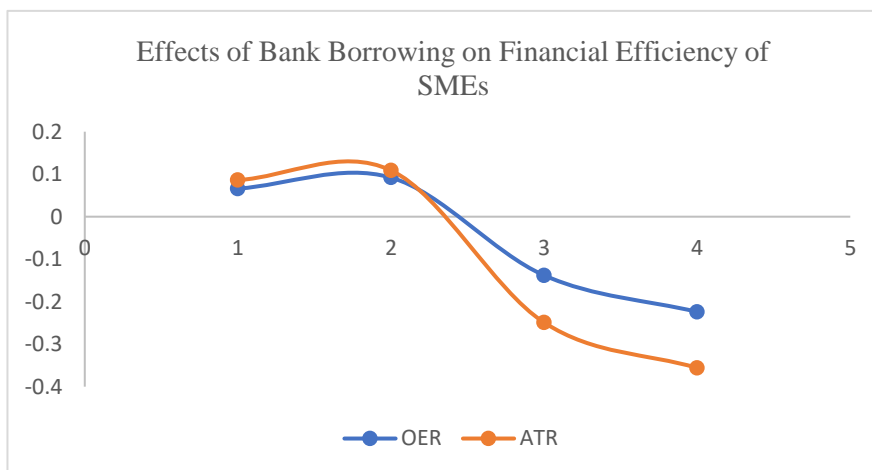


Fig. 5. Effects of Bank Borrowing on Financial Efficiency of SMEs. Source by authors

DISCUSSION

The article examines the effects of the levels of PWCB on the financial performance of SMEs. The findings align with Abdulsaleh and Worthington (2013), and Abor and Biekpe (2009), who suggested that when SMEs rely heavily on bank borrowing, comprising 76-100% of PWCF, they may face higher interest expenses. These increased interest payments can eat into their gross profits. Our findings also corroborate those of Serrasqueiro and Caetano (2015) and Kira and He (2012) who suggest that there is an optimal level of debt for SMEs, beyond which the marginal benefits of additional borrowing decrease. SMEs with very high levels of bank borrowing (76-100% of

PWCF) may be at a higher risk of financial distress which can lead increased costs, operational disruptions, and a decline in gross profit margins. The results further corroborate those of Njeru et al. (2016) who suggest that SMEs with high levels of bank borrowing (above 50% of PWCF) tend to have lower asset turnover ratios, which can be attributed to the increased interest expenses and reduced operational flexibility associated with excessive debt.

5 CONCLUSION

This article empirically examined the effects of levels of bank borrowing as a percentage of working capital finance on the financial performance of SMEs. Specifically, (1) the effects of different levels of borrowing from banks on the profitability of SMEs, (2) the effects of different levels of borrowing from banks on the financial efficiency of SMEs in Cameroon. The findings reveal that levels of borrowing from banks as a percentage of working capital finance have a positive and significant effect on the financial performance of SMEs. However, this effect diminishes with an increase in PWCB above 50%. In this regard, public and private policies should encourage SMEs access to bank borrowing up to 50% of their working capital needs for optimal financial performance.

REFERENCES

- [1] Abor, J., & Biekpe, N. (2009). How do we explain the capital structure of SMEs in sub-Saharan Africa? Evidence from Ghana. *Journal of Economic Studies*, 36 (1), 83-97.
- [2] Abdulsaleh, A. M., & Worthington, A. C. (2013). Small and medium-sized enterprises financing: A review of the literature. *International Journal of Business and Management*, 8 (14), 36.
- [3] Adomako, S., Danso, A., & Ofori Damoah, J. (2016). The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital*, 18 (1), 43-61.
- [4] Agyei-Mensah, B. K. (2011). Working capital management practices of small firms in the Ashanti region of Ghana. *International Journal of Academic Research in Business and Social Sciences*, 1 (3), 289-310.
- [5] Ayyagari, M., Beck, T., & Demircuc-Kunt, A. (2011). Small and medium enterprises across the globe. *Small Business Economics*, 37 (4), 415-434.
- [6] Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1), 99-120.
- [7] Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of Financial Management* (15th ed.). Cengage Learning.
- [8] Capon, N., Farley, J. U., & Hoenig, S. (1990). Determinants of financial performance: a meta-analysis. *Management Science*, 36 (10), 1143-1159.
- [9] Cassar, G., & Holmes, S. (2003). Capital structure and financing of SMEs: Australian evidence. *Accounting & Finance*, 43 (2), 123 - 147.
- [10] Cheng, T. Y., & Cheng, C. H. (2020). The impact of bank financing on the financial performance of small and medium-sized enterprises. *International Journal of Innovation, Management, and Technology*, 11 (1), 10-15.
- [11] Cosh, A., Cumming, D. J., & Hughes, A. (2009). Outside entrepreneurial capital and the financing of the small firm. *The journal of Business venturing*, 24 (2), 176-193.
- [12] Cowling, M., Liu, W., & Ledger, A. (2012). Small businesses financing in UK before and during the current financial crisis. *International Small Business Journal*, 30 (7), 778 – 800.
- [13] Daskalakis, N., Jarvis, R., & Schizas, E. (2013). Financing practices and preferences for micro and small firms. *Journal of Small Business and Enterprise Development*, 20 (1), 80-101.
- [14] Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting*, 30 (3-4), 573-588.
- [15] Dogan, M. (2013). Does firm size affect the firm profitability? Evidence from Turkey. *Research Journal of Finance and Accounting*, 4 (4), 53-59.
- [16] Gujarati, D. N. (2004). *Basic econometrics* (4th ed.). McGraw-Hill.
- [17] Hamza, S. M., & Abubakar, A. (2022). The impact of capital structure on the financial performance of SMEs in Ghana. *Journal of Small Business and Enterprise Development*, 29 (1), 18-35.
- [18] Hasan, Z. (2000). Determinants of Islamic bank profitability. The Islamic Research and Training Institute, 1-25.
- [19] Hossain, M. (2020). Factors influencing bank borrowing preferences of SMEs: Evidence from Bangladesh. *Journal of Small Business Management*, 58 (1), 29-45.
- [20] Jude, C., & Adamou, A. (2018). Capital structure and firm performance in developing countries: Evidence from Benin. *African Development Review*, 30 (4), 418-432.
- [21] Kira, A. R., & He, Z. (2012). The impact of firm characteristics in access to financing by small and medium-sized enterprises in Tanzania. *International journal of business and management*, 7 (24), 108.
- [22] Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The Journal of Finance*, 28 (4), 911-922.
- [23] Luukkonen, T., Deschryvere, M., & Bertoni, F. (2013). The value-added contribution of venture capital: An analysis of the European evidence. *Journal of Banking & Finance*, 37 (3), 773-783.

- [24] Ministry of Small and Medium-Sized Enterprises. (2020). Report on SME Access to Financing in Cameroon.
- [25] Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13 (2), 187-221.
- [26] National Institute of Statistics. (2021). Survey on SME Financing in Cameroon.
- [27] Njeru, A. W., Nyanumba, L., & Ondabu, I. T. (2016). Determinants of capital structure among small and medium enterprises in Thika, Kenya. *International Journal of Humanities and Social Science*, 6 (4), 45-57.
- [28] Nunes, P.M., Serrasqueiro, Z., & Leitao, J. (2013). Assessing the nonlinear nature of the relationship between capital structure and firms' profitability: Evidence from SMEs. *The Journal of Applied Business Research*, 29 (3), 765-778.
- [29] Sekaran, U. (2006). *Research methods for business: A skill building approach* (4th ed.). John Wiley & Sons.
- [30] Serrasqueiro, Z., & Caetano, A. (2015). Trade-Off Theory versus Pecking Order Theory: capital structure decisions in a peripheral region of Portugal. *Journal of Business Economics and Management*, 16 (2), 445-466.
- [31] Williams, C. (2011). Research methods. *Journal of Business & Economics Research*, 5 (3), 65-72.