Determinants of Capital Structure Decision of Micro, Small and Medium Scale Entreprises (MSMES) in Selected South Western States, Nigeria

[1]Ifeoluwa Mary Adebiyi, [2]Omoniyi.J. Eniola, [3]Oluyinka. I Oluwagbade [4]Israel.S. Akinadewo

,

[1,2]Department of Accounting, College Management Sciences, Joseph Ayo Babalola University Ikeji-Arakeji, Osun State, Nigeria.

[3,4]Department of Accounting, College of Social and Management Sciences, Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria.
* Corresponding Author's email address: imadebiyi@gmail.com

ABSTRACT: *This research investigated the firm characteristics and owner-manager characteristics that affect capital structure decisions of Micro Small and Medium Scale Enterprises (MSMEs) in Nigeria using a sample size of 120, drawn from MSMEs in Ondo and Osun states, combining the simple random sampling technique with the cluster sampling technique. This study employed primary data by administering questionnaires to MSME owners and managers. The descriptive statistics and logistic regression analysis was used to analyse data. The results showed that size of firms using capital investments had a significant positive impact on capital structure decisions, while size of firms using number of employees had a positive but insignificant effect on capital structure decisions. In the same vein, firm age showed an insignificant positive effect on capital structure choices of MSMEs in Nigeria. Owner-Manager gender, age and education revealed an insignificant negative effect on capital structure decisions of MSMEs in Nigeria. Consider. This study therefore recommends that MSMEs should from time to time expand the scope of their activities as they grow in order to easily access external finance when the need arises. In the same vein, external finance such as debt can be explored by both the male and female gender when there is a need for it, after carefully considering the risks and benefits.*

KEY WORDS: capital structure decisions, debt capital, MSMEs, capital structure determinants, firm characteristics, owner-manager characteristics

INTRODUCTION

Capital Structure decision, among the several decisions is a composition of equity and debt according to Njo and Jonnardi (2022). What will determine whether a firm choose to include more or less of debt as part of its funding structure, for many years has been a topic of discussion which have taken precedence from the initial work of Modigliani & Miller in 1958 on irrelevance argument (Bashir, 2019). Kokeyeva and Adambekova (2019) noted that the choice of factors that determines the decisions accomplished by financial managers is rated as highly significant. Uyar and Guzelyurt (2015) explained that Micro Small and Medium Scale Enterprises (MSMEs) are not able to access certain types of financing from outside sources such as debt that is long term in nature and equity funding. Therefore, in many cases, they are dependent in funds that are internally generated resulting from operations that are profitable or short-term debt. According to Kehinde and Ashamu (2014) entrepreneurs of MSMEs start businesses with seed capital from their personal funds, family or other relatives as well as through loans issued by financial institutions but less often, to set up their businesses. It was further explained that, the owners of such enterprises lack the funding capacity needed to grow their businesses and there is a later need to expand their businesses through debt financing.

In several countries worldwide, Micro Small and Medium Sized Enterprises (MSMEs) with coherent structures can play a major role in raising employment growth, wealth generation, reduction of poverty, sustained economic expansion and development (Adelekan et al., 2016). The funding of micro, small and medium sized enterprises play a key role in determining their growth and sustainability in the environment where they operate. Abdusaleh and Worthington (2013) affirmed that, MSMEs when compared with large firms differ significantly when considering issues relating to their financing choices and behaviour. Kokeyeva and Adambekova (2019) stated that diverse characteristics of firms in diverse business sectors can result in diverse capital structures and financing. Abor (2008) noted that it is vital to consider factors that influence their capital structure decisions, so as to get a better idea of how firms from emerging countries fund their activities. Due to tough conditions and poor implementation of the government scheme, a significant number of MSMEs have been denied access to debt funding by financial institutions such as banks (Kehinde & Ashamu, 2014). So, rather than an optimum balance between debt and equity, the previously mentioned factors have led to most micro, small and medium enterprises having largely equity in their capital structure. These differences in capital structure are also influenced by additional factors, and this is of particular relevance to MSMEs which have led to studies from a number of researchers on factors that influence or determine capital structure across countries. Although, diverse studies exist in relation to what affect capital structure choices or access to finance by MSMEs in developed and developing countries (as ELbekpashy & ELgiziry, 2018 in Egypt; Forte et al., 2013 in Brazil; Hailla & Leon, 2022; Long & Milan, 2023 in Visegrad group; Lussuamo & Serrasqueiro, 2019 in Angola; Muiru & Kamau, 2014 in Kenya; Oppong-Boakye et al., 2013 in Ghana; Rossi, 2014 in Italy; Rao et al., 2019 in India, Arzubiaga et al., 2023 in Spain; Uyar & Guzelyurt, 2015 in Turkey); this area of research is still underexplored in Nigeria as a large number of studies lay emphasis on big and quoted firms and listed firms and the results obtained from these studies cannot be generalized for MSMEs due to their peculiarities.

Apart from firm characteristics (as firm age, profitability, asset structure, growth, size, liquidity, risk, taxation) largely examined by previous studies (Hashemi, 2013; He & Kira, 2012; Mac an Bhaird & Lucey, 2010; Muiru & Kamau, 2014; Saarani & Shahadan, 2013), owner-manager characteristics are factors specific to MSMEs and can affect their decision. In terms of the ability to raise finance, personal characteristics of owners and managers have a huge impact. The main reason is that, in essence, the owner-manager has a dominant position within the company and also plays an important decision making role. These include Gender, education, experience, age, family firm image, marital status, business ownership among others. These have been examined in previous research works (as Abor, 2008; Alqatamin, 2018; Faccio et al, 2016; Huang & Kisgen, 2014; Kyenze, 2014; Osei-Assibey et al., 2010; Thijssen, 2017; Arzubiaga et al., 2023; Zabri & Lean, 2014) with limited studies in Nigeria. This in addition to firm characteristics is investigated in this current study. It's one of the contributions to literatures on determinants of capital structure (firm characteristics and owner-manager characteristics) in MSMEs in Nigeria and at large. Related studies in Nigeria have only been conducted by Oke (2019) who examined the impact firm and owner characteristics have on access to formal external financing in North Central. Another similar study was conducted by Akingunola and Oyetayo (2014); this study however focused on registered firms and not the non-listed ones. Also, only firm characteristics (leverage, profitability, growth, tangibility and size) were examined and not owner-manager characteristics. Other studies relating to MSMEs in Nigeria focused largely on SMEs' contribution to growth and development, challenges faced by MSMEs, funding options or financing structure (Bakare & Babatunde, 2014; Gbandi & Amissah, 2014; Oyewo & Badejo, 2014). This showed the paucity of research in line of firm characteristics & owner-manager characteristics and how it affects capital structure decision, as well as knowledge gap filled by this study. It is imperative to conduct this study because MSMEs have their own distinctiveness which differentiates them from large firms. Hence, this present study bridges the gap of paucity of research on factors affecting the capital structure decision of MSMEs in Nigeria at large and also justifies the need for an extensive study in this field. This study therefore investigates the determinants of capital structure decisions, Firm Characteristics (i.e. Firm Size and Firm Age) and Owner-Manager Characteristics (i.e. Age, Gender and Education) of MSMEs in Ondo & Osun states, Nigeria.

2. LITERATURE REVIEW/THEORETICAL UNDERPINNING

This section of the study examines the concept of capital structure, factors affecting capital structure decision i.e. firm characteristics and owner-manager characteristics, and the concept of micro, small and medium scale enterprises. It also explained the theories reviewed in this study. Lastly, empirical review of prior studies relating to the study was conducted.

Conceptual Review

The concepts and constructs examined in this study are explained in this section.

Capital structure decision is the means through which a company finances its activities or operations. It is majorly categorized into debt and equity. Also known as financing decision; this constitute a variety of sources, which form part of the equity and liability side of the

statement of financial position. They are composed of both internal and external funding sources (Hailla & Leon, 2022; Modugu, 2013). The use of retained earnings, personal and family savings, which represent internal equity, is one of these sources. Others include issuance of new shares i.e. external equity or borrowing through debt instruments i.e. debt capital. According to Nizam and Liaqat (2022), it is composed of short term debt and long term debt, in addition to equity. Uyar and Guzelyurt (2015) explained that it is primarily concerned with the mix of financing inside or outside which will be used in financing operations of the business and new investments. The end result of the financing decision chosen by firms is the capital structure (Rao et al., 2019). The decision on the capital structure is one area of concern which is not to be underestimated. Public interest bodies are faced with this most important strategic decision of their lives, and it poses a number of challenges to companies (Modugu, 2013).

Firm Characteristics; relates to attributes that pertain to the firm such as the size, age, profitability. *Firm Size* according to Kung'u (2011) is one of the crucial variables in prior studies in relation to access to credit. The firm size plays a crucial role in terms of debt negotiation. According to Oppong-Boakye et al. (2013); Rao et al. (2019), large firms are able to negotiate for long term debt because that can exert influence on the creditors. They are more diversified compared to smaller companies, and they also have a steady cash flow. When compared with smaller firms, larger enterprises have greater access to external finance and the costs associated with accessing it are lower. *Firm Age* is estimated as the log of number of years since the company has been incorporated (Rao et al., 2019). Nawi (2015) stated that the age of a firm is guided by a life cycle approach, which means that different capital structures are applied at various points in the cycle. In the initial phase, MSMEs make use of internal financing because external sources are difficult to obtain during this stage. Thereafter, external financing is sought as the company expands and there is a need for additional capital. This leads to a positive association between the age of the firm and capital structure in the company. Kung'u (2011) noted that the sources of finance for firms change over a while. For example, an enterprise can start as a family owned undertaking by using its own financial sources of funds as personal savings and family funds. In the future, it will expand to secure financing from its suppliers. Once the company has established a sound business and track record, set up accounting systems and created legal identity, it may subsequently apply for bank loans. ELbekpashy and ELgiziry (2018) also explained that the track record of a firm may improve over time which makes external funding more likely for older firms. In the same way, they may be a rise in retained earnings overtime, making it more likely for older firms to finance themselves using internal finance.

Owner-Manager Characteristics; these are personal attributes of the entrepreneur that can influence his choice of finance. These include factors like gender, age, education, experience. An important factor in explaining the funding pattern of firm is the *Age* of the owner-manager. Compared to younger managers, who usually have a lower startup capital, older managers have a higher startup capital (Carter & Rosa, 1998). The market knowledge of mid-aged owner-managers are more advanced and, therefore, are more likely to take advantage of bank funding (Wu et al., 2008). Vos et al. (2007) noted that older owner-managers are more contended with their financial behaviour hence they are do not make as much use of financing from outside sources. The *Education* of the owners, especially the educational background, is an important

factor when raising debt in small firms (Abor, 2007). Zhang (2008) pointed out that it is more likely for an entrepreneur with better formal education to make use of a formal and external source of financing. This is possibly due to the fact that they have the initiative of exploring other internal finance sources before settling for debt. According to Storey (1994) banks are increasingly inclined to provide financing for owner-managers with more likely to give finance to owner-managers who have formal qualifications. In addition, owners with any qualification whatsoever are more likely to approach external financing institutions than those who have no qualification (Sena, 2012). Graham et al. (2001); Vos et al. (2007) explained that MSME owners that are less educated use more of external financing that the more educated ones and they are wiser. In the same vein, well more educated and confident owner-managers tend to are likely to predict the hierarchy (pecking order) of capital structure decisions since they have new experiences and prefer to raise new equity each time debt-to-equity ratio is lesser compared to the sector's average. They have novel experiences, hence avoid the conventional available finance sources; they prefer to raise new equity anytime stock price is fairly high. *Gender* is considered to be a key attribute in the determination of firm's financial leverage (Frank & Goyal, 2007b). The way in which female and male entrepreneurs finance their business generally differ (Carter & Rosa, 1998; Verhuel & Thurik, 2001). It's about risk taking and taking risks is frequently perceived to be a masculine attribute. These societal and biological factors according to Thijssen (2017) have, plausibly, generated a wedge between the male and female counterparts leading to differences in risk tolerance levels and confidence. It is debated that males are overly confident and tolerant to risk compared to females, while females tend to be more conservative and risk avoiding (Huang & Kisgen, 2013).

Micro, Small and Medium Scale Enterprises (MSMEs)
MSMEs are generally termed SMEs (Small and Medium Scale or Sized Enterprises), even though, an assessment of a number of definitions distinguishes Micro from Small and Medium enterprises. They are also termed informal sector. According to Oyewo and Badejo (2014), MSMEs refer to a very heterogeneous group of businesses that operates in diverse sectors i.e. trading, agriculture, manufacturing, and service businesses operated by owners or proprietors who possess refined skills, however, the owners usually operate on a micro, small and medium scale, resulting in the emergence of the name Micro, Small and Medium-sized enterprises. It is the life blood of any serious economy, and one of the simplest ways to increase employment in society. The MSMEs in Nigeria are estimated to constitute around 40% of the GDP and 70% of industrial employment according to Eniola (2014). Even in the advanced nations, MSMEs do not seize to play vital and remarkable roles (Effiom & Edet, 2018). The definitions of MSMEs differ from country to country and even among institutions in the same country. Ogechukwu (2011) specified that different authors, schools and scholars each have their own ideas about differences in capital outlay, number of workers, sales turnover etc. According to the National Policy on SMEs, one or more of these; employment, turnover, assets as well as paid-up capital incorporated as a usual criterion for MSMEs (Kale, 2019).

For this study, MSMEs was classified according to the criteria of 'no of employees' and 'capital investment' according to CBN (2005). This SMEs definition classified SMEs into micro, small scale and medium enterprise. It is described thus: *Micro enterprises* are businesses with a workforce of not more than 10 employees, and or capital investment of at most 1.5 million,

including working capital but excluding land costs. *Small scale enterprises* are enterprises having a labor force of 11 to 100 employees, and or capital investments of more than 1.5 million but not more than 50 million, which includes working capital but excludes land costs. *Medium enterprises* are those enterprises with a workforce of between 100 and 300 employees, and or capital investment of more than 50 million but not exceeding 200 million, including working capital without regard to cost of land. The CBN classification was used for this study

Theoretical Review

The trade-off theory, pecking order theory and life cycle theory has been examined in this study considering their relevance to this present study. However the trade off theory and pecking order theory provide theoretical backing for this study.

Trade-off theory began with the study of Kraus and Litzenberger, 1973 and was subsequently developed by Myers (1984) and Frank and Goyal (2007a). According to Luigi and Sorin (2009), it is one of the most widely held theories on capital structure theories. In the wake of the debate on the Modigliani –Miller (MM) theorem, trade-off theory was seriously considered, according to Luigi and Sorin (2009). This is an evolution of MM theorem, however, taking into account the effect of taxation and bankruptcy costs (Cekrezi, 2013). This theory as suggested by Myers (1984) proposed that firms posited that firms should balance the tax advantage of debts against possible bankruptcy costs so as to attain an optimal level of indebtedness (Olumuyiwa et al., 2017). The theory emphasized the tax advantage of using debt in a firm's capital structure. In accordance with trade-off theory, the age of a firm is is positively correlated with debt. Hence, older firms find it much easier to access loan compared to the younger ones; this is due to the fact that they have the benefit of a greater reputation and a trend that is traceable over time (Sanchez & Sensini, 2013).

The theory of Pecking order was developed by Myers in 1984. This theory fails to take an optimum capital structure as the starting point, but instead suggests that companies favor internal sources of funds such as retained earnings or excess liquid assets to external sources. Firms do not rush to obtain external funding, and if external funding is unavoidable, they would prefer to choose between funding sources with lower capital costs and at the same time reduce additional cost of information asymmetry (Luigi & Sorin, 2009). Furthermore, according to pecking order theory, the risk of finance from internal sources is less. Thus, the Myers and Majluf model explains that managers tend to follow a hierarchy and prefer to use internal finance first, and in the case of external debt, equity is issued when it is no longer appropriate to use additional debt. If the business does not have a strong position, it will keep its profits so as to prevent it from seeking external financing in the future (Luigi & Sorin, 2009). In line with the pecking order theory, firm age has a negative association with debt. Consequently, mature companies must build up profits over time and therefore do not require outside funding for the purpose of investing their assets; since they can use this accumulated profit to finance their investments (Bello et al., 2021).

Life cycle theory was introduced by Berger and Udell (1998) and it is considered by many to be most popular view of the capital structure of small business (Menike, 2015). Empirical

research has established that the funding decision of MSMEs is influenced by the life cycle stages, which explains why business finances have evolved over a period. explain the reason business financing has evolved over time (Walid, 2019). For the life cycle growth model, new businesses rely mainly on internal financing sources and the mature ones on the use of external financing, which will affect their growth and the accomplishment that can be achieved as a firm. However, the fact that this theory does not provide a full picture of the capital structure decisions and behaviour of MSMEs is criticised. Timmons (2004) found that small and young companies are more likely to receive capital from internal and personal sources, and also informal investment and finances from family and friends.

2.3. Empirical Review
2.3.1. Firm Size and Capital Structure decision
The positive effect of firm size on debt has been demonstrated in a number of empirical studies. ELbekpashy and ELgiziry (2018) studied SMEs in Egypt using quoted and unquoted Small and Medium Sized Enterprises. 28 quoted SMEs were first sampled, while the second sample contained panel data of 98 unquoted SMEs. A positive and significant effect of firm size on capital structure was identified. Oke (2019) also concluded that the size of a firm has an effect on accessing outside financial resources. Similarly, Yazdannfar and Ohman (2016) observed similar effect in terms of short term debt even though firm size had no significant impact on long term debt of quoted Swedish SMEs. Muiri and Kamau (2014) also observed that the firm size has a positive effect on leverage in their study of SMEs in Kenya, although the results were statistically insignificant. In the same vein, Daskalakis et al. (2014) identified similar findings for small and medium sized enterprises in Greece. These results are consistent with the trade-off theory which explains that large firms have more diversity and less chance of bankruptcy than smaller ones. On the other hand, in the study of SMEs in Indonesia within 2019-2022, Hailla and Leon (2022) have shown the existence of a negative and insignificant effect in relation to firm size and long term debt. Long and Milan (2023) also discovered a significant negative impact of firm size on capital structure (debt ratio).

Firm Age and Capital Structure decision
In the study of Bello et al. (2021), the financing decisions of SMEs in the manufacturing sector in India were examined for the period 2013-2018, and data were collected through questionnaire. The results revealed a statistically significant positive effect on leverage. ELbekpashy and ELgiziry (2018) discovered that firm age significantly affected short term debt; this finding was insignificant for total leverage as well as long term leverage. Napompech (2013) identified that a positive and significant impact of firm age on both short and long term debt in the study of 191 small firms in Thailand. Oke (2019) also identified a positive but insignificant effect on access to external finance. The positive effect suggests that older companies have good track records, which makes it easier for them to access credit than their younger counterparts with no track record. In addition, they are seen to have a better credit rating that will give them credibility with their lenders. Again, Walid (2019) studied SMEs in Tunisia. In order to examine the effect of life cycle stages on the 70 Tunisian Industrial SMEs' capital structure from 2013 to 2016, this study made use of a panel method of data analysis. The study showed that in the short term, Tunisian SMEs have a tendency to take out debt more strongly, whereas long term debt was less employed. By contrast, in the case of Malaysian

SMEs, Saarani and Shahadan (2013) found that the age of firm had a significantly negative impact on debt ratio. Likewise, Lussuamo and Serrasqueiro (2021) found that firm age negatively influenced short term debt. Forte et al. (2013) also discovered that firm age negatively affected financial leverage while studying over 19,000 Brazillian firms over a period of 13 years. A negative effect according to pecking order theory suggests that older and more experienced companies are less in need of external finance due to their ability to rely more on funds generated internally by them (Bello et al., 2021). It also indicates that, as regards financing decisions of the more mature firms, there might be some conservatism (Forte et al., 2013).

Owner-Manager Gender and Capital Structure decision

The effect of the personal characteristics of the CEO was assessed on capital structure choices from 2008 to 2013 among non-financial firms in Jordan by Alqatamin (2018). It was revealed that a positively significant effect of gender was identified on leverage. Male was represented with 1, female represented with 0. The result implied that the more the male, the more debt used by them. Oke (2019) in the study of SMEs in North central Nigeria found a strong positive impact on access to external funding. Thijssen (2017) examined 230 firms over a period of 9 years, for the year 2007-2015 and found that female owner-managers had a negative effect on debt. The moderating role of sufficient (structural) power was introduced. Results revealed that different dimensions of power have different moderating role on the interaction women and leverage. The results explained that structural power give rise to female owner managers to having lower financial leverage, while substantial prestige power brings about increase in financial leverage. Faccio et al. (2016) identified a statistically important interaction between owner-managers who are female and leverage in 21 countries from 1999 to 2009. Kyenze (2014) investigated the attributes of the manager and its effect on capital structure of 61 companies quoted on the Securities Exchange of Nairobi from the year 2008 to 2013 and found that gender had significant negative impact on capital structure. As well, in the study of Huang and Kisgen (2013) for the period 1993 to 2005, a negative yet significant relationship was identified between the female gender and leverage, acquisition and growth of assets. This means that companies owned by women are less likely to be involved in debt use, while the male counterparts have a higher propensity to do so. In addition, Graham et al. (2013) analysed 1,180 owners and managers and found that the female use debt less than the male.

2.3.4. Owner-Manager Age and Capital Structure decision

Alqatamin (2018) identified owner-manager (CEO) age to be negative and significantly affected by capital structure (leverage). The result provides that younger CEOs are bolder and make use of a more risky financing compared to the older ones. The younger ones want to make known their capabilities to their stakeholders. This aligns to the results of Serfling 2012; Yim 2013) who discovered a negative effect of owner-manager age on other factors as investment decision. As well, Kyenze (2014) reported found that age had a considerable negative impact on the capital structure of listed firms in Kenya. Vos et al. (2007) however found a different result and revealed that, in the areas of external financing, younger business owners have been seen to take an active role in seeking or using external funding, whereas elderly business men have a lower likelihood of doing so. Frank and Goyal (2007b) argued that owner-managers who are older are linked with a behaviour that is conservative; this is as a

result of their past experience, whereas young owner-managers have a tendency to be radical due to their future expectation. Hence, the older ones steer clear from debt financing, though the study finds no statistically significant evidence. Oke (2019) also found that owner-manager age insignificantly influenced external finance access. Zabri (2014) in his research on the funding preferences and capital composition of successful Malaysian Small and Medium Enterprises identified that owner-manager age is a key factor when explaining a firm's financing pattern; older managers have a higher start-up capital compared to the younger ones who usually have a lower start-up capital.

Owner-Manager Education and Capital Structure decision
According to Wu et al. (2008), it has been shown that managers with higher degree of education were more likely to make use of bank loans in their research on small businesses in China. This is due to the fact that they may have better understanding of the financial markets. On the other hand, Gebru (2009) have shown that a significant and negative effect of education on the use of debt exist and that less educated entrepreneurs in Tigray are more dependent on their own sources of finance, while those who are more educated consider using formal sources when their own sources have been exhausted. Kyenze (2014) findings also revealed that education had a significant negative effect on capital structure. However, further study by Vos et al., (2007) showed that SME owners with lower levels of educational attainment had a higher propensity to engage in active external funding, while those with higher educational attainments made less use for or sought external funding. There was no evidence that education significantly affected debt level supplied to SMEs in China according to Borgia and Newman (2012). This is consistent with the findings of Oke (2019) who also identified an insignificant influence of education on access to external finance.

Conceptual Framework of the study

The conceptual framework for this study presented in Figure 1 shows the independent variables which are the determinants of capital structure i.e. firm characteristics and owner-manager characteristics and the dependent variable represented by debt capital.
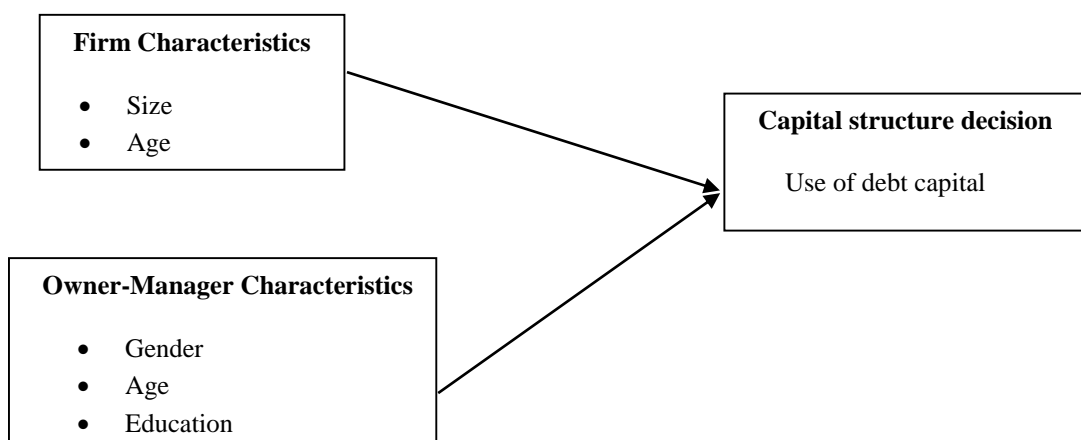

Figure 1: *A Conceptual framework of the determinants of capital structure decision of MSMEs in Selected South Western States, Nigeria.*

3. Methodology

This aspect of the study explains research design, population of the study, sampling technique and size and data collection methods.

Population of the study and Sample size

This study's population was composed of owners and managers of micro, small and medium enterprises in Nigeria. Out of the entire MSMEs in Nigeria, a sample size of 120 was purposively selected. The researcher considered this adequate to select this size in order to ensure a quick, precise and comprehensive collection and analysis rather than the whole MSME sector in Nigeria. The cluster sampling and simple random sampling technique were further employed to select the samples and the south western states. The cluster technique separate the population into clusters, which consists of geographical areas, then representatives, was randomly chosen from this group. 100 SME owner-managers were selected from Ondo State and 20 SME owner-managers from Osun state. Data was obtained using questionnaire administered to these MSME owners and managers.

Model Specification

The model used for this study is stated below:

$\text{Log}\,[Y/(1-Y)] = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$

Y = Dependent variable i.e. Capital structure decisions represented by the use of debt capital
X = Independent variables, i.e. Firm characteristics (Size & Age), Owner-Manager characteristics (Gender, Age, Education)

Hence,

$\text{Log}\,[\text{debt}/(1-\text{debt})] = \beta_0 + \beta_1 \text{FIRMSIZE} + \beta_2 \text{FIRMAGE} + \beta_3 \text{OMGEND} + \beta_4 \text{OMAGE} + \beta_5 \text{OMEDUC} + \varepsilon i$ …………………………………………………………..…………….(1)

Where:
β_0 represents the Constant
$\beta_1, \beta_2, \beta_3$ represents the Regression coefficients
ε represents the Error term

Research Hypotheses

H_{01}: Firm Size does not significantly affect the capital structure decision of MSMEs in Nigeria
H_{02}: Firm Age does not significantly affect the capital structure decision of MSMEs in Nigeria
H_{03}: Owner-Manager Gender is not significantly affected by the capital structure decision of MSMEs in Nigeria.
H_{04}: Owner-Manager Age is not significantly affected by the capital structure decision of MSMEs in Nigeria.
H_{05}: Owner-Manager Education is not significantly affected by the capital structure decision of MSMEs in Nigeria.

Variable Description

The measurement for the dependent and independent variables used in this study are explained in the table below.

Dependent variable	Description/Measurement
Capital Structure decision	Use or Presence of debt capital. Dummy Variable, Yes (1), No (0)
Firm Size (FIRMSIZE)	-Capital Investment (categorized into Micro, Small and Medium -No of employees (categorized into Micro, Small and Medium)
Firm Age (FIRMAGE)	Years of operation of the business, classified into seven groups.
Owner/Manager Gender (OMGEND)	Male (1) or Female (0)
Owner/Manager Age (OMAGE)	Age of the owner or manager (classified into five categories)
Owner/Manager Education (OMEDUC)	Highest level of education, categorized into five groups of educational level.

Source: Researcher's Compilation

Data Analysis Techniques

This study made use of descriptive and inferential statistics. The descriptive statistics used are frequencies and percentages based on the nature of the data. For the inferential statistics, logistic regression was used as the dependent variable is categorical in nature. Omnibus test was conducted for the firm characteristics and owner-manager characteristics.

4. RESULTS AND FINDINGS

The descriptive statistics and inferential statistics used in this study are explained in this section.

4.1.1 Descriptive Statistics

		Frequency	Percent	Cumulative Percent
Valid	Male	63	76.8	76.8
	Female	19	23.2	100.0
	Total	82	100.0	

Table 4.1: Respondent's Gender

		Frequency	Percent	Cumulative Percent
Valid	Under 20 years	1	1.2	1.2
	20-29 years	10	12.2	13.4
	30-39 years	18	22.0	35.4
	40-49 years	27	32.9	68.3
	50+ years	26	31.7	100.0
	Total	82	100.0	

Table 4.2: Respondent's Age

The results for gender and age of the respondents depicted in Table 4.1 showed that, from the 82 responses considered for this study, 76.8 per cent (63 responses) represented the male respondents; the remaining represented the female respondents. These results revealed that show that a large number of MSME owners surveyed in Nigeria are comprised of male. In relation to age of respondents in Table 4.2, five choices of answer were available to the respondents, which are: Under 20 years old, 20-29 years, 30-39 years, 40-49 years and the last one, which is 50 years and above. The result explains that a large number of the respondents fell within the age group of 40-50+, which represents 64.6 per cent (i.e. 32.9, 31.7), next is 18 respondents in the age bracket of 30-39 years. The remaining respondents were within the age group of 20-29 and under 20 years old with 10 responses and 1 response respectively.

		Frequency	Percent	Cumulative Percent
Valid	Primary/Secondary Education	6	7.4	7.4
	OND/NCE	6	7.4	14.8
	B.sc/HND	34	42.0	56.8
	Msc./MBA	20	24.7	81.5
	Ph.D	12	14.8	96.3
	Professional Qualification	3	3.7	100.0
	Total	81	100.0	

Table 4.3: Highest educational Qualification

Six choices were available for the respondents to choose from as shown in Table 4.3. Out of these choices, the results revealed that most of the respondents had a high level of educational attainment, as 34 (42 per cent) obtained a bachelor's degree. Likewise, 32 respondents obtained

a post-degree education, as 20 of the respondents completed their master degree, while 12 of them had a PhD. A total of 3 respondents had relevant professional certification as ACA, ACCA, which was identified as their highest level of education. The last respondent indicated to be a veterinary surgeon. The remaining respondents didn't have a high educational level as 6 of them was identified to have OND/NCE, while another 6 respondents had just Primary or Secondary school education.

Inferential Statistics

Firm Characteristics and Capital Structure decision
This section comprises the analysis of effect firm's characteristics have on the choice of capital structure. Two firms' characteristics including firms' age, size and size were tested. The results are presented in tables. In order to ascertain the overall significance of this model, an Omnibus test was carried out, and to know whether adding another variable to the model would enhance the output or not. Table 4.10 provides the results.

Table 4.10: Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	21.834	3	.000
	Block	21.834	3	.000
	Model	21.834	3	.000

Source: Author's Computation 2021

With an additional 1 degree of freedom, omnibus tests of model coefficient yield a Chi-square of 21.834. This is a null hypothesis test to see if adding another variable to the model improved the study's ability to predict respondents' decisions considerably. The hypothesis is rejected since the model is significant at 0.05, meaning that adding another variable to the model has no significant effect on the prediction of respondents' decisions**.**

Furthermore, log likelihood and Pseudo-R-square tests were conducted to ascertain the fitness of the model, and the results are provided in table 4.11.

Table 4.11: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	87.858[a]	.234	.317

Source: Author's Computation (2021)

In view of the parameter estimates, the likelihood of the observed findings is the probability. This is because the likelihood is a small number less than 1, -2 times the log likelihood (-2LL) is commonly used as a measure of how well the model matches the data. A good model is one which, with a certain degree of certainty, estimates the results to be observed. This result in a low -2LL scores (if a model fits perfectly, the likelihood is 1 and -2LL is 0). The score of 87.858 in table 4.10 is far from zero, but because there is no maximum limit, it is difficult to

comment on its meaning. The goal of -2 Log likelihood is to check if adding additional variable to the model reduces the model's value significantly. R^2 in multiple regressions can be read as Cox & Snell R Square, however it cannot reach the maximum of 1. In multiple regressions, Nagelkerke R Square can be regarded as R^2, and it can reach 1. Using the Nagelkerke R Square, it can be deduced that firms' characteristics account for around 31.7% of variances in the choice of debt capital. However, because this is a pseudo-R-square, it is not precisely the same as the R-square in conventional least square, and it is frequently low, it should be interpreted with caution.

Finally, the study employed the classification table to test the fitness of the model, and the result is shown in table 4.12.

Table 4.12: Classification Table

		Predicted		
		Is long term debt from banks and other financial institution part of your company financing		Percentage
	Observed	0	Yes	Correct
Step 1	Is long term debt from 0 banks and other financial	43	7	86.0
	institution part of your company financing	14	18	56.3
	Overall Percentage			74.4

a. The cut value is .500

Source: Author's Computation (2021)

The Firm characteristics Classification Table reveals that the rule allows the study to accurately categorize 18/ 32 = 56.3 percent of respondents where the expected event (using debt capital) was seen. This is called prediction sensitivity, or the P (correct | event did occur), which is the percentage of properly predicted events. In cases where the predicted event was not witnessed, the researcher accurately classified 43 / 50 = 86 percent of the responses using this method. This is referred to as prediction specificity, or the P (correct | event did not occur), which is the percentage of nonoccurrence accurately anticipated. Overall, 61 out of 82 forecasts were right, resulting in a 74.4 percent success rate. Since the overall percentage of correct classification is not less than 70%, it implies the model is very robust. This implies that variables employed to measure firm characteristics, which are firm size and age sufficiently represents the firm characteristics and significantly contribute to the choice of capital structure.

Finally, the study tested the effect of firm's characteristics on the choice of debt capital and the outcome is shown in table 4.13.

Table 4.13: Effect of Firm Characteristics on Choice of Capital

	B	S.E.	Wald	df	Sig.	Exp(B)

Step 1[a]	Firms age	.327	.198	2.273	1	.921	1.052
	Capital investment	.666	.199	11.208	1	.001	1.947
	No of Employee	.050	.508	.010	1	.099	1.386
	Constant	-3.609	.952	14.367	1	.000	.027

Source: Author's Computation (2021)

When interpreting a regression equation, the independent variables must be linked to the business question that the equation was created to address. However, because logistic regression is non-linear, it is difficult to properly comprehend the relationships between the predictor and the chance that y=1. Despite the preceding limitation, statisticians have demonstrated that the relationship can be interpreted using the odd ratio idea. The odds in favor of an event occurring are calculated by dividing the chance of the event occurring by the probability of the event not occurring (Anderson et al., 2011).

The regression equation is lnods=-3.609+0.327+ 0.666 +0.050, according to the variables in the equation output in table 4.13 Holding all other variables fixed, the coefficient (b) indicates that as age of MSMEs in Nigeria increases by 1, the likelihood of choosing debt capital rises by 0.327. However, this effect is not statistically significant at 5% level of significance (b= 0.327, p = 0.921> 0.05). Similarly, the study shows that the increase in capital investment by 1₦ significantly increases the probability of choosing debt capital by 0.666 (b= 0.666, p = 0.001). This result implies that larger firms, in terms of capital investment, have an increased probability of choosing debt capital. In contrast, this study reveals that an increase in the likelihood of choosing debt capital increases insignificantly by 0.050 (b= 0.050, p = 0.099> 0.05) when the size of the company in relation to employee size increases.

Furthermore, Exp (B) values can also be found in the variable in the table. This is also known as the model's odd ratio prediction. The odd ratio that is greater than 1.0 implies that the larger the predictor, the larger the likelihood of the occurrence of the explained variable. Therefore, the odd ratios of 1.052, 1.947 and 1.386 imply that the higher the firm's age, capital investment and number of employees respectively, the larger the probability of choosing debt capital. However, only the increase in the capital investment significantly predicts the likelihood of choosing debt capital.

Owner-Manager Characteristics and Debt Capital

This section examined the effect the characteristics of owners-manager have on choice of debts capital. Similarly, the results are presented in tables. The entire significance of the model was first examined and the results are shown in the omnibus table.

Table 4.13   Omnibus Tests of Model Coefficients

		Chi-square	Df	Sig.
Step 1	Step	2.998	3	.392

Block	2.998	3	.392
Model	2.998	3	.392

Source: Author's Computation (2021)

Similarly, the table 4.13 shows that with an additional 1 degree of freedom, omnibus tests of model coefficient yield a Chi-square of 2.998. This is a null hypothesis test to see if adding another variable to the model improved the study's ability to predict respondents' decisions considerably. The hypothesis is not rejected since the model is not significant at 0.05 (X^2= 2.998, P = .392> 0.05). This result implies that adding another variable to the model would significantly improve the prediction of respondents' decisions**.**

Furthermore, the fitness of the model was examined using log likelihood and pseudo-R-square. The results are presented in summary table.

Table 4.14: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	106.694[a]	.036	.049

Source: Author's Computation (2021)

The model summary table shows -2 Log likelihood of 112.094, which is far from zero, but because there is no maximum limit, it is difficult to use the result for final decision. In like using the Nagelkerke R Square, it can be deduced that owner-manager characteristics accounts for around 4.9% of possibility of choosing debt capital. However, because this is a pseudo-R-square, it is not precisely the same as the R-square in conventional least square, and it is frequently low, it should be interpreted with caution.

Finally, the fitness of the model was examined using the classification table. The results obtained are given in table 4.14.

Table 4.15: Classification Table (Owner-Manager Characteristics)

		Predicted		
		Is long term debt from banks and other financial institution part of your company financing		Percentage
	Observed	0	Yes	Correct
Step 1	Is long term debt from 0 banks and other financial	47	3	94.0
	institution part of your company financing Yes	30	2	6.3
	Overall Percentage			59.8

a. The cut value is .500

Source: Author's Computation (2021)

The owner-manager characteristics Classification Table 4.15 reveals that the rule allows the study to accurately categorize 2/ 32 = 6.3 percent of respondents where the expected event (using debt capital) was seen. This is known as prediction sensitivity, or the P (correct | event did occur), which is the percentage of properly predicted events. In cases where the predicted event was not witnessed, the researcher accurately classified 47 / 50 = 94 percent of the responses using this method. This is known as prediction specificity, or the P (correct | event did not occur), which is the percentage of nonoccurrence accurately anticipated. Overall, 49 out of 82 forecasts were correct, resulting in a 59.8 percent success rate. Since the overall percentage of correct classification is less than 70%, it implies the model is not robust enough. Also, the study tested the effect of manager-owner characteristics on the choice of debt capital and the outcome is shown in table 4.

Table 4.16: Effect of Owner-manager characteristics on the choice of Debt capital

Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	Gender	-.907	.615	2.174	1	.140	.404
	Age	-.074	.230	.103	1	.748	.929
	Academic qualification	-.198	.221	.804	1	.370	.820
	Constant	1.609	1.301	1.530	1	.216	4.996

a. Variable(s) entered on step 1: Gender, Age, academic qualification.

Source: Author's Computation (2021)

The regression equation is lnods=- 1.609 -.0.907- 0.74 -0.198, according to the variables in the equation output in table 4.16. Holding all other variables constant, the coefficient (b) indicates that the gender of owner/manager of MSMEs in Nigeria insignificantly reduces the possibility of choosing debt capital (b = -0.907, p = .140> 0.05) at 5% level of significance. In like manner, the age of owner/manager of MSMEs in Nigeria reduces the likelihood of choosing debt capital, but this effect is not significant at 5% level of significance (b= -0.074, p = 0.748> 0.05). Similarly, the study shows academic qualification of the owner/manager of MSMEs in Nigeria insignificantly reduces the probability of debt capital at 5% level of significance (b= -.0.198, p = .370> 0.05).

Likewise, the odd ratio of 0.404, 0.929 and 0.820 suggest that the higher the number of male owner/manager of MSMEs, their age, and academic qualifications, the lower the likelihood of choosing debt. However, this effect is statistically not significant at 5% level of significance.

5. DISCUSSION

The descriptive statistics revealed that MSMEs in Nigeria are more of sole proprietors and partnerships rather than private limited companies. This is due to their peculiarities; hence the more they expand in capital investment and employee size, the more they expand in structure. The MSMEs is also dominated by the male gender. This could imply that the male are more willing to take the risk of venturing into business. Also, a large number of the MSME owners/managers are highly educated.

The inferential statistics results based on the above objectives are explained below:

Firm Characteristics and capital structure decision

For firm size (capital investment), the study revealed that a significant positive effect existed on debt capital. As a result, the null hypothesis is not accepted. This result portrays that the larger the size of firms in terms of capital investment, the larger the probability of choosing debt capital. In terms of number of employees, the study shows an insignificant yet positive effect on debt capital. The significant positive effect of firm size on debt capital aligns with previous studies (Abor & Biekpe, 2009; ELbekpashy & ELgiziry, 2018). The insignificant positive effect is also in accordance with the results of Forte et al., (2013); Muiri and Kamau (2014) in their study of firm size and leverage. Yazdannfar and Ohman (2016) also discovered an immaterial positive effect on use of short term debt. The positive effect lends credence to the trade off theory which suggests that larger firms do not have a high likelihood of becoming bankrupt when compared to smaller ones; in addition to the fact that, they are able to attract investment and have access to the capital market.

Firm age showed an insignificant positive effect on debt capital. Hence, the null hypothesis accepted. The insignificant positive effect is in coherence with the results of ELbekpashy and ELgiziry (2018) in their study of firm size and long term leverage. Their findings were also positive for short term leverage, though significant. The positive effect on debt is also consistent with other empirical works (Abor, 2009; Bello et al., 2021; He & Kira, 2012; Napompech, 2013). The positive effect also provides support for the trade off theory which suggests that mature/older firms find it easier to obtain loan than the younger ones; considering that over time, they possess a greater reputation financially and a consistent trend.

Owner Manager Characteristics and capital structure decision

The owner-manager gender was discovered to have a negative but insignificant effect on debt capital use. Thus, the null hypothesis is accepted. The negative effect is in adherence to the results of Kyenze (2014) on gender effect on capital structure decision. The results revealed that majority of the men were less willing to make use of debt capital, although, the men constituted a large number of the respondents.

In like manner, owner-manager age of MSMEs did not significantly affect debt capital. A negative effect was found. Based on this, null hypothesis is accepted. This result aligns with the study of Frank and Goyal (2007b); the negative effect is also in line with previous studies (Alqatamin, 2018; Kyenze, 2014; Vos et al., 2007). Though, in terms of level of significance, this study contradicts the previous findings. According to Alqatamin (2018), younger owner-managers are bolder (over confident) and can accommodate the riskier financing when compared with older ones.

Similarly, the study shows that educational qualification of the owner-manager of MSMEs in Nigeria insignificantly has a negative effect on debt capital. The null hypothesis is therefore accepted. The insignificant negative effect corresponds to the results of Buferna (2005). The insignificant effect also agrees with the findings of Borgia and Newman (2012). This current study also correlates with the results of Kyenze (2014), though it contradicts this current study in terms of the level of significance. Other empirical researchers that identified a negative effect include (Vos et al., 2007). The negative effect gives credence to the pecking order theory which

explains where preference is given to internal financing through retained earnings and debt is used as a last resort where the former is unavailable.

6. CONCLUSION AND RECOMMENDATIONS

In conclusion, Firm size had a significant positive effect on capital structure decision (debt capital) when measured using capital investment. However, when firm size is measured using number of employees, it had a positive but insignificant effect on capital structure decision. The positive effect implies that are larger in size are able to attract investment and gain access to the capital market considering their size and scale of operation. As well, firm age showed an insignificant positive effect on the capital structure decision. This connotes that there is a possibility of a firm's track record improving overtime, hence making it more likely for older firms to obtain external finance. Also, it is assumed that older firms possess a higher credit worthiness which promotes their reputation with lenders.

Similarly, an insignificant negative effect of gender on debt capital was found. This suggests that if male owner-managers are more, the probability of choosing debt capital low. Owner-manager age also revealed an insignificant negative effect capital structure decisions. This implies that the with an increased owner-manager age, there is a lower propensity to make use of debt capital. This substantiates the notion that younger owner-managers are more daring and make use of risky financial instruments than their elders. It is concluded in this study that a greater number of the MSME owner-managers were middle aged and older. Owner-Manager education revealed an insignificant and negative effect on capital structure decisions (debt capital) of MSMEs in Nigeria. The implication of this is that if educational qualification is high, the probability of choosing debt capital is low. The negative effect provides support for the assumption that educated owner-managers have new experiences and are wiser, hence they prefer to explore new ways of raising new equity than the conventional means of borrowing. Though, their level of education provides them an advantage of finding it easier to access funding. It was further concluded that a greater number of MSME owners sampled had a minimum of Bachelor's degree. This shows that they attained a very reasonable level of education, hence, highly educated.

This study recommends that:

MSMEs should make effort to expand their scope of operation as they grow so as to make it easier to obtain external finance when there is a need to expand.

- MSMEs should step up their accounting systems and procedures, so that potential lending partners can see a real picture of their businesses.
- The use of external financing as debt should be explored by the male and female gender when the business calls for it after carefully weighing the risks and benefits.

7. AREAS OF FUTURE RESEARCH

Considering the limitations of this study, other areas require further investigation to enable in depth understanding of the capital structure of MSMEs. The following areas of further study

are recommended. To examine other firm characteristics as profitability, liquidity, asset structure, as well as other owner-manager characteristics as age, experience and culture. Also, extending this study to lending institutions will help to get an understanding from their perspective. Lastly, extending this sample size to other south western states would help have a robust understanding of capital structure of MSMEs in Nigeria.

REFERENCES

Abor, J. (2008) Determinants of Capital Structure of Ghanaian Firms. *African Economic Research Consortium (AERC),* Nairobi.

Abor, J. (2007). Industry classification and the capital structure of Ghanaian SMEs. *Studies in Economics and Finance, 24*(3), 207 – 219.

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.

Adelekan, S.A., Arogundade, S.T. & Dansu, O.O. (2016). Entrepreneurship and Economic Growth in Nigeria: Evidence from Small and Medium Scale Enterprises (SMEs) Financing using Asymmetric Auto-Regressive Distributed Lag. *Global Journal of Commerce & Management Perspective, 5*(3), 43-50.

Akingunola, R. & Oyetayo, O. (2014). Determinant of Financial Structure Decision in Small and Medium Enterprises: A Pilot Study of Selected Registered Companies in Nigeria. *Journal of Economics and Finance*, *31*(1), 01-08.

Alqatamin, R.M. (2018). Capital Structure and CEO's Personal Characteristics: Evidence from Jordan, *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *8* (2), 113- 125.

Arzubiaga, U., De Massis, A., Maseda, A., & Iturralde, T. (2023). The influence of family firm image on access to financial resources in family SMEs: a signaling theory perspective. *Review of Managerial Science*, *17*(1), 233-258. https//doi.org/10.1007/s11846-021-00516-2

Bakare, A.A & Babatunde, O.M. (2014). Prospects and Challenges Facing Small and Medium Scale Enterprises in Oyun Local Government Area of Kwara State, Nigeria. *Fountain Journal of Management and Social Sciences, 3*(1) 59-66.

Bashir, M. M. (2019). Impact Of Firm Attributes In The Determination Of Capital Structure Of Listed Food And Beverages Firms In Nigeria. *International Journal of Accounting and Finance (IJAF)*, *8*(2), 64-74.

Bello, C., Migliaro, D., & Shan, A. (2021). Financing Decisions of Manufacturing SMEs: Evidence from India. *International Journal of Business Management and Economic Research*, *12*(2), 1903-1908.

Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of banking & finance*, *22*(6-8), 613-673. https://doi.org/10.1016/S0378-4266(98)00038-7

Borgia, D., & Newman, A. (2012). The influence of managerial factors on the capital structure of small and medium-sized enterprises in emerging economies: Evidence from China. *Journal of Chinese Entrepreneurship, 4*(3), 180-205. https://doi.org/10.1108/17561391211262148

Buferna, F.M. (2005) Determinants of Capital Structure: Evidence from Libya. Unpublished PhD thesis, University of Liverpool

Carter, S., & Rosa, P. (1998). The Financing of Male and Female Owned Businesses. Entrepreneurship and Regional Development, *10*(3), 225-242. https://doi.org/10.1080/08985629800000013

Cekrezi, A. (2013). A literature review of the trade-off theory of capital structure. *ILIRIA International Review*, *3*(1), 125-134.

Central Bank of Nigeria.(2005): CBN Bulletin 2005 edition

Chandrasekharan, C. V. (2012). Determinants of capital structure in the Nigerian listed firms. *International Journal of Advanced Research in Management and Social Sciences*, *1*(2), 108-133.

Daskalakis, N., Eriotis, N., Vasiliou, D. & Thanou, E. (2014). Capital structure and size: new evidence across the broad spectrum of SMEs. *Managerial Finance, 40*(12), 1207-1222. https://doi.org/10.1108/MF-11-2013-0325

Effiom, L. & Edet, S.E. (2018) Success of Small and Medium Enterprises in Nigeria: Do Environmental Factors Matter?. *Journal of Economics and Sustainable Developments, 9*(4), 117-127.

ELbekpashy, M.S. & ELgiziry K. (2018). Investigating the Impact of Firm Characteristics on Capital Structure of Quoted and Unquoted SMEs. *Accounting and Finance Research, 7*(1), 144-160. https://doi.org/10.5430/afr.v7n1p144

Eniola, A.A. (2014). The role of SME firm performance in Nigeria. *Arabian Journal of Business and Management Review (OMAN Chapter), 3*(12), 33-47.

Faccio, M., Marchica, M. T., & Mura, R. (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *Journal of corporate finance*, *39*, 193-209. https://doi.org/10.1016/j.jcorpfin.2016.02.008

Forte, D., Barros, L.A. & Nakamura, W.T., (2013) Determinants of the Capital Structure of Small and Medium Sized Brazilian Enterprises. *Brazilian Administration Review, 10*(3), 347-369.

Frank, M.Z. & Goyal, V.K. (2007a). Trade-off and pecking order theories of debt. Available at SSRN 670543

Frank, M. Z. & Goyal, V. K. (2007b). Corporate leverage: How much do managers really matter? Working paper. University of Minnesota.

Gbandi, E.C. & Amissah, G. (2014) Financing Options for Small and Medium Enterprises (SMEs) in Nigeria. *European Scientific Journal, 10*(1), 327-340.

Gebru, G. H. (2009). Financing preferences of micro and small enterprise owners in Tigray: does POH hold?. *Journal of Small Business and Enterprise Development*, *16*(2), 322-334. https://doi.org/10.1108/14626000910956083

Graham, J. R., Harvey, C. R., & Puri, M. (2013). Managerial attitudes and corporate actions. *Journal of financial economics*, *109*(1), 103-121. https://doi.org/10.1016/j.jfineco.2013.01.010

Hailla, N.N. & Leon, F.M. (2022) Determinants of Capital Structure of Small and Medium Enterprises in Indonesia. *International Journal of Social Science and Human Research, 5*(12), 5727-5736. https://doi.org/10.47191/ijsshr/v5-i12-59

Hashemi, R. (2013). The Impact of Capital Structure Determinants on Small and Medium size Enterprise Leverage. Master Thesis, Sodertorn University, Institution for   Social Science.

He, R.A. & Kira, Z. (2012). The Impact of Firm Characteristics in Access of Financing by Small and Medium-sized Enterprises in Tanzania. *International Journal of Business and Management, 7*(24), 109-119. http://dx.doi.org/10.5539/ijbm.v7n24p108

Huang, J., & Kisgen, D. J. (2013). Gender and corporate finance: Are male executives overconfident relative to female executives? *Journal of financial economics 108* (3), 822-839. https://doi.org/10.1016/j.jfineco.2012.12.005

Kehinde, J.S. & Ashamu, S.O. (2014). Financial Structure Mix: Effect on Growth and Earning of Small and Medium Enterprises in Nigeria. *International Journal of Humanities and Social Science, 4*(4), 132-137.

Kale, Y. (2019). Micro, small and medium enterprises (MSME) national survey 2017 report. *National Bureau of Statistics: Lagos*, 1-27.

Kokeyeva, S. & Adambekova, A. (2019). Capital Structure Choice in SMEs: Evidence from Kzakhstan. *International Journal of Management, Entrepreneurship, Social Science and Humanities, 2*(2), 77-87.

Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. *The journal of finance*, 28(4), 911-922. https://doi.org/10.2307/2978343

Kung'u, G. K. (2011). Factors influencing SMEs access to finance: A case study of Westland Division, Kenya. *Munich Personal RePEc Archive, 1-27.*

Kyenze, A. M. (2014). The effect of manager characteristics on the capital structures of firms listed at the Nairobi securities exchange. Doctoral dissertation, University of Nairobi.

Long Hoang Pham & Milan Hrdý (2023) Determinants of S.M.E.s capital structure in the Visegrad group, EconomicResearch-Ekonomska Istraživanja, 36:1. https://10.1080/1331677X.2023.2166969

Low, C., & Mazzarol, T. (2006). Owner-managers' preferences for financing: A   study of Singaporean SME.   In *ICSB, World Conference 2006*.

Luigi, P., & Sorin, V. (2009). A review of the capital structure theories. *Annals of Faculty of Economics*, *3*(1), 315-320.

Lussuamo, J. & Serrasqueiro, Z. (2021). What are the determining factors in the capital structure decisions of small and medium-sized firms in Cabinda, Angola? *R. Cont. Fin*, 32(87), 476-491. https;//doi.org/10.1590/1808-057x202110920

Mac an Bhaird, C., & Lucey, B. (2010). Capital Structure and the Financing of SMEs: Empirical Evidence from an Irish Survey. *Small Business Economics, 35*(3), 357-375.

Menike, L.M.C.S. (2015) Capital Structure and Financing of Small and Medium Sized Enterprises: Empirical Evidence from a Sri Lankan Survey. *Journal of Small Business and Entrepreneurship Development, 3*(1), 54-65. http://dx.doi.org/10.15640/jsbed.v3n1a6

Modugu, K.P. (2013). Capital Structure Decision: An Overview. *Journal of Finance and Bank Management, 1*(1), 14-27.

Moro, A., Lucas, M., Grimm, U., & Grassi, E. (2010) Financing SMEs: a model for optimising the capital structure. *17th Annual Global Finance Conference*, 27-30 Jun 2010, Poznan.

Muiru, M., & Kamau, S. M. (2014). An assessment of capital structure decisions by small and medium enterprises in Kenya. *Research Journal of Finance and Accounting*, *5*(15), 20-27.

Myers, S.C. (1984). The capital structure puzzle. *Journal of Finance,* 39, 575–592.

Nawi (2015) Determinants of Capital Structure in Small and Medium-Sized Enterprises in Malaysia. A PhD Dissertation, Brunel Business School, Brunel University London.

Napompech, K. (2013). Determinants of capital structure of small firms in Thailand. *Trends in Applied Sciences   Research*, 8(2), 92-104.

Newman, A. (2010). *Capital structure determinants of private small and medium-sized enterprises in China*. Doctoral dissertation, University of Nottingham.

Nizam, K. (2022). Corporate Governance and Firm Performance: Empirical Evidence from Pakistan Banking Sector. *International Journal Of Economics Social And Technology*, *1*(4), 178-191. https://doi.org/10.59086/ijest.v1i4.260

Njo, R., & Jonnardi. (2022). Analisis Faktor-Faktor yang Memengaruhi Struktur Modal. *Jurnal Ekonomi*, *2018*, 61 –78.

Olumuyiwa, G.Y., Odusanya, I. A, & Olowofela, O.E. (2017) Trade-Off Theory of Optimal Capital Structure and Adjustment towards Long Run Target: A dynamic Panel   Approach, *Journal of Accounting and Management, 7*(2), 174-181.

Ogechukwu, A.D. (2011). The Role of Small Scale Industry in National Development in Nigeria. *Universal Journal of Management and Social Sciences, 1*(1), 23-41.

Oke, L.A. (2019) Impact of Firm and Owner Characteristics on Access to Formal External Financing Among SMEs in North Central Nigeria. A PhD Dissertation, Kwara State University, Kwara.

Oppong-Boakye, P.K., Opoku-Appiah, K. & Afolabi, J.K. (2013). Determinants of Capital Structure: Evidence from Ghanaian Firms. *Research Journal of Finance and Accounting, 4(*4), 44-52.

Oyewo, B.M. & Badejo, S.O. (2014). An Empirical study of the Capital Structure of Micro, Small and Medium Scale Enterprises in Nigeria. *International Journal of Business and Social Science, 5*(9), 281-292.

Osei-Assibey, E., Bokpin, G. A., & Twerefou, D. K. (2010). The Microenterprise and Financing Preference in Ghana: Is There a Hierarchical Preference Ordering?. *Available at SSRN 1612071*.

Oyewo, B.M. & Badejo, S.O. (2014). An Empirical study of the Capital Structure of Micro, Small and Medium   Scale Enterprises in Nigeria. *International Journal of Business and Social Science, 5*(9), 281-292.

Rossi, M. (2014) Capital Structure of Small and Medium enterprises: The Italian Case. *International Journal of Globalisation and Small Business, 6*(2), 130-144. https://doi.org/10.1504/IJGSB.2014.066471

Saarani, A.N. & Shahadan, F. (2013). The Determinant of Capital Structure of SMEs in Malaysia: Evidence from enterprise 50 (E50) SMEs. *Asian Social Science, 9*(6), 64-73.   http://dx.doi.org/10.5539/ass.v9n6p64

Sanchez, J.A. & Sensini, L. (2013). Predicting corporate bankruptcy and financial distress: a critical overview. *International Conference on Accounting, Finance and Risk Management Perspectives,* 508-526.

Sena, V., Scott, J., & Roper, S. (2012). Gender, borrowing patterns and self-employment: some evidence for England. *Small Business Economics*, *38*(4), 467-480.

Serfling, M. A. (2012). CEO age, underinvestment, and agency costs. *Eller College of Management, University of Arizona*.

Storey, D.J. (1994). The role of legal status in influencing bank financing and new firm growth. *Applied Economic*s, *26*, 129-136. https://doi.org/10.1080/00036849400000068

Thijssen, M.W.P. (2017) CEO Characteristics and Capital Structure of Firms. A Study of CEO's Decision Making Power. A Master Thesis, University of Twente.

Rao, P., Kumar, S., & Madhavan, V. (2019). A study on factors driving the capital structure decisions of small and medium enterprises (SMEs) in India. *IIMB Management Review*, *31*(1), 37-50.

Thijssen, M.W.P. (2017). CEO Characteristics and Capital Structure of Firms: A Study of CEO's Decision-Making Power. A Master Thesis, University of Twente.

Timmons, J.A. (2004). New Venture Creation: Entrepreneurship for the 21st Century, McGraw-Hill.

Uyar, A., Mustafa, K. & Guzelyurt (2015). Impact of firm characteristics on capital structure of Turkish SMEs. *Managerial Finance, 41*(3), 286-300. https://doi.org/10.1108/MF-01-2014-0016

Verheul, I., & Thurik, R. (2001). Start-Up Capital: Does Gender Matter? Small Business Economics, *16*(4), 329-346. https://doi.org/10.1023/A:1011178629240

Vos, E., Yeh, A. J-Y., Carter, S. & Tagg, S. (2007). The happy story of small business. financing. *Journal of Banking & Finance, 31*(9), 2648-2672. https://doi.org/10.1016/j.jbankfin.2006.09.011

Walid, Y. (2019). Life Cycle Theory of the Capital Structure: Evidence from Tunisian SMEs. *Asian Economic and Financial Review*, *9*(4), 432-449. https://doi.org/10.18488/journal.aefr.2019.94.432.449

Wu, J., Song, J. & Zeng, C. (2008). An empirical evidence of small business financing in China. *Management Research News*, *31*(12), 959-975. https://doi.org/10.1108/01409170810920666

Yazdanfar, D., & Öhman, P. (2016). Capital structure dynamics among SMEs: Swedish empirical evidence. *The Journal of Risk Finance*, *17*(2), 245-260. https://doi.org/10.1108/JRF-04-2015-0040

Yim, S. (2013). The acquisitiveness of youth: CEO age and acquisition behaviour. *Journal of financial economics, 108*(1), 250-273. https://doi.org/10.1016/j.jfineco.2012.11.003

Mohamed Zabri, S. (2013). Financing preferences and capital structure among successful Malaysian SMEs. A Ph.D Thesis, School of Management Plymouth Business School.

Zabri, S.M & Lean, J. (2014). SME managers' financing preferences: The case of successful SMEs in Malaysia. In *Proceedings of 5th Asia Pacific Business Research Conference,* 1-13

Zhang, G. (2008). The choice of formal or informal finance: Evidence from Chengdu, China. *China Economic Review*, *19*(4), 659-678. https://doi.org/10.1016/j.chieco.2008.09.001