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Doctoral Thesis

The influence of capital structure and profitability on the solvency of nascent SMEs

Suggested Citation: Amoa-Gyarteng, Karikari (2022) : The influence of capital structure and profitability on the solvency of nascent SMEs, University of Johannesburg, Johannesburg, <https://ujcontent.uj.ac.za/esploro/outputs/doctoral/The-influence-of-capital-structure-and/9914505207691>

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**THE INFLUENCE OF CAPITAL STRUCTURE AND PROFITABILITY ON THE
SOLVENCY OF NASCENT SMEs**

by

KARIKARI AMOA-GYARTENG

A thesis submitted in fulfilment for the degree

of

Philosophiae Doctor

in

Business Management

at the

College of Business and Economics

UNIVERSITY OF JOHANNESBURG

Supervisor: Prof. Shepherd Dhliwayo

2022

DECLARATION

I certify that the thesis submitted by me for the University of Johannesburg's Philosophiae Doctor (Business Management) degree is my original work and has not been submitted by me for another university's degree.

KARIKARI AMOA-GYARTENG



DEDICATION

The biblical passage in Isaiah 41:13, “For I am the Lord your God, who takes hold of your right hand and says to you, do not be afraid; I will help you.” kept me going until the end of my thesis.

This doctoral thesis honours my parents, K.A. Gyarteng and Constance Yeboah, my grandmother, Cecilia Kufuor, my wife, Angela Ohene-Poku, my sons, Nana Adjaye, Papa Kwesi, and Papa Karikari, and my siblings, Dr Kwaku Gyima and Nana Yaa, as well as my aunt, Ms Philomena Kufuor.

God's Blessings on All of Us!



ACKNOWLEDGEMENTS

It never seems possible until it's done--Nelson Mandela

For the planning, execution, and completion of this study, I wish to express my gratitude and thanks to:

- Prof. Shepherd Dhliwayo: Your supervision of this study from beginning to completion is greatly valued. It is a great honour to be able to pursue such an intriguing entrepreneurship study under your guidance. Thank you.
- University of Johannesburg: For accepting me as a student and for the fantastic management and support systems you have in place.
- Ghana's National Board for Small Scale Industries: For granting me access to data in order to conduct my research.
- Statistical Consultation Service, University of Johannesburg: For the statistical analysis.

I am eternally grateful to God for seeing me through this process, bestowing wisdom from on high, and directing me to the right university and supervisor.

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ABSTRACT

Even though small and medium enterprises contribute significantly to the growth of national economies, they are vulnerable in their early stages and may fail. Hence younger businesses are more likely to fail than more established ones because they face complex challenges that may limit their viability. This is a notion established in the liability of newness framework. According to the liability of newness concept, the precarious existence of emerging organisations is due to difficulties in managing relationships among strangers, not quickly assembling resources, and not coping with difficult environments, among other issues. All these elements notwithstanding, previous literature suggests that small businesses can, and sometimes do engage in techniques or approaches to help reduce the liability of newness, such as raising adequate capital. This study suggests that not only is adequate capital important but that the right mix of capital also results in higher solvency, thereby mitigating the liability of newness. Because the various funding forms have distinct advantages and disadvantages, an appropriate capital structure reduces the cost of financing while increasing the value of the firm. This study also advances the idea that profitable businesses are productive and financially strong, and thus nascent enterprises with high profitability can minimise the liability of newness. As a result, the study sought to examine the influence of capital structure and profitability on the solvency of nascent small and medium enterprises. To put the study's hypotheses to the test, 1106 nascent small and medium enterprises that are registered with the National Board for Small Scale Industries were sampled across three major cities in Ghana. Thus, data was gathered from every member of the population. Such data, gathered from the SMEs' financial statements, was submitted to preliminary screening as well as a number of statistical measurements. Operationally, the dependent variable, solvency, was defined as the solvency ratio, working capital ratio, and net worth. As a result, three distinct regression models were developed for robustness. The study's findings broadly indicate that capital structure and profitability have an influence on the solvency of nascent small and medium enterprises. The study also determined that emerging small and medium enterprises should follow the principles of the pecking order theory to reduce the liability of newness. These findings, if adopted by SME owners, can aid in the maturation of their fledgling businesses.

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CHAPTER 1

SCIENTIFIC OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

Since the path-breaking work of Arthur Stinchcombe in 1965 regarding the liability of newness of small and medium enterprises (SMEs), there have been several attempts to test the concept. As a result, the liability of newness in small and medium enterprises remains open for further investigation (Yang & Aldrich, 2017: 36). Small and medium enterprises have an essential role in developing economies (Ur Rehman, 2016: 205; Pais & Gama, 2015: 341). However, they face significant liability of newness and may collapse in their nascent stages. According to Coase and Wang (2011: 2), most new businesses fail and disappear in their embryonic stages.

Nonetheless, entrepreneurs can and sometimes do engage in techniques or approaches to help reduce the liability of newness (Rutherford, Mazzei, Oswald, & Jones-Farmer, 2016: 912). For instance, entrepreneurs could help the enterprise survive by raising adequate financial capital (Yang & Aldrich, 2017: 41). Not only is sufficient funding important, but the appropriate mix of capital could result in higher net profits, earnings, and enhanced liquidity (Dhankar, 2019: 198). Therefore, the financing approach could alter the venture's chances of survival and success (Abor, 2017: 21). Ultimately strategies designed by an entrepreneur should aid stakeholders in deciphering the business's direction, thereby raising the likelihood that the new venture will be considered legitimate (Rutherford et al. 2016: 912). Such legitimacy could help the new enterprise to attract external funding.

Designing an appropriate capital structure could help nascent SMEs to build a financial buffer against the liability of newness (Wiklund, Baker & Shepherd, 2010: 427). According to Dhankar (2019: 198), financing decision is the most important decision an organisation could make. An SME may choose different designs of capital. It may decide to use a large amount of equity and little debt or vice versa. However, the essential aspect is that small and medium enterprises need to find a specific mix of capital that enhances survival.

An appropriate capital structure reduces the cost of financing while increasing the firm's value (Bhatt & Mohd, 2017: 73). This is because the various funding forms come with distinct advantages and disadvantages (Landsrom, 2017: 124). As a result, an efficient capital structure design eventually results in growth and productivity (Li, Niskanen & Niskanen, 2019: 582). Organisations that are productive and financially strong are negatively correlated with failure (Park & Lee, 2019: 51). Therefore, enterprises with high profitability are able to fend off the

liability of newness. Large firms and small businesses differ in their capital designs. This notwithstanding, there is a notable gap in the literature on the capital structure of small and medium businesses (Kumar et al. 2019: 2). Owing to the importance of SMEs to national economies, researchers have intensified their research efforts to find small business management competencies that can help nascent SMEs survive and cope with the liability of newness (Abatecola & Uli, 2016: 1084).

For instance, Brettel et al. (2011) established the association between distribution channel choices of nascent SMEs and performance. By establishing the association between socio-political legitimacy, profitability and revenue, Rutherford et al. (2016) examined the role of legitimacy in overcoming the liability of newness. This study walks a similar path by investigating the role of capital structure and profitability in overcoming significant liability of newness by establishing the relationship that financing choices and profitability have with solvency.

Financing issues, such as over-leverage, are often cited as the leading causes of firm failure (Pretorius, 2008: 414). Highly leveraged firms will be at a high risk of insolvency and default if they cannot pay their obligations (Almansour, 2015: 118). A low level of profitability is also a precursor of insolvency (Levratto, 2013: 2). According to Levratto (2013: 5), businesses default when they are not making profits and their capital is not creating value.

When total liabilities exceed a reasonable appraisal of the company's assets, the company becomes insolvent (Almansour, 2015: 118; Power, 2015: 46). In that situation, net worth is recognised as negative, and businesses with a negative net worth may fail. Insolvency also occurs because of Illiquidity (Liu, Wang & Chen, 2012: 1344). The proportion of existing liabilities financed by current assets is referred to as liquidity (Liu et al. 2012: 1344). A company that is not liquid may go into default and be liquidated (Gryglewicz, 2011: 365). In essence, the financial health of an enterprise is determined by its capital structure, profitability, and solvency (Cultera & Bredart, 2016: 104).

This study is a response to previous studies such as O'Toole and Ciuchta (2019), which calls for investigation into new strategies that will bring about buffers to the liability of newness and make it possible for nascent SMEs to transition from pre-legitimate to legitimate ventures. It is the proposition of this study that for nascent small and medium enterprises to moderate the liability of newness; they must make capital structure decisions that reduce insolvency. They

also must be profitable. The study addresses the issue of whether capital structure and profitability matter to small business survival.

Capital structure metrics vary across studies. For instance, Kodongo, Mokoaleli-Mokotelli and Maina (2015: 3) measured capital structure according to total debt to asset ratio, debt to equity ratio and long-term debt to equity ratio. In studying the capital structure and profitability of SMEs in the United Kingdom, Yapa (2012: 28) used debt to equity ratio; total debt to total assets, long term debt to total assets and short-term debt to total debt as metrics for capital structure. Mat Nawi (2015: 272) also categorised capital structure into debt, equity, long term debt and trade credit.

The total debt to assets ratio, total equity to assets ratio, and total debt to total equity ratio are all used in this study to determine capital structure. Following Dhliwayo (2007: 163), profitability is measured in terms of Return on Equity (ROE) and Net Profit after Tax (NPAT). It is also calculated as a Return on Asset. Net worth, working capital ratio, and solvency ratio are all used to determine solvency (Lamberg & Valming, 2009: 8).

Using empirical data from Ghana, a lower middle-income country in West Africa, this study looked at the impact of profitability and capital structure on the solvency of nascent small and medium enterprises. Small and medium businesses are defined differently in different countries. The framework developed by Ghana's National Board for Small Scale Industries is used in this study. Small businesses are defined as those with fewer than 29 employees and have up to the cedi equivalent of \$100,000 in fixed assets. Medium-sized businesses employ 30 to 99 people and have fixed assets of \$100,000 to \$1,000,000. This study classifies nascent SMEs as entrepreneurial firms that are less than five years as espoused by Ramsgaard & Waren (2015); Zwane, Kanyangale, & Ndoro, (2015); Günzel-Jensen, & Holm, (2015); Crawford, Aguinis, Lichtenstein, Davidsson, & McKelvey, (2015).

1.2 RESEARCH PROBLEM

As stated in the United Nations Sustainable Development Goals, small and medium businesses are critical to eradicating poverty (Gasper, 2017: 1). SMEs play a critical role in global economic development, employment, and poverty reduction, according to several studies. Small and medium enterprises, for example, employ 85 per cent of Ghana's manufacturing workforce and account for nearly 70 per cent of the country's GDP (Abor & Quartey, 2010: 218). In 2015, small and medium enterprises in South Africa contributed 22% of the Gross Value Added (Bureau for Economic Research, 2016: 31).

Small and medium enterprises generally impact economic growth through job creation, productivity enhancement and structural transformation (Kritokos, 2014: 1). According to Nieuwenhuizen (2019: 666), 95% of businesses globally are small and medium enterprises. Their importance to global and national economies cannot be overstated. However, this is only valid for as long as the venture is still operating as mortality rates are very high. According to Hewitt and Roodt (2017: 144), half of all small businesses collapse within the first two years of their existence. In Ghana, 60% of entrepreneurial firms do not survive beyond the fifth year (Amaglo, 2019: 2).

Small and medium businesses in Ghana are more likely to fail than succeed, owing to this high failure rate. The high failure rate poses a problem to the Ghanaian economy in the areas of creation of jobs, economic stimulation, and poverty reduction. The high incidence of SME failure is, therefore, a critical recipe for economic retardation. Several explanations have been adduced as the reasons for nascent SME failure, including the liability of newness. It is during the nascent stage that they create and learn new roles and methods. At the embryonic stage, they struggle to build contacts with external stakeholders, such as suppliers and creditors (Yang & Aldrich, 2017: 2). Building strong relationships with stakeholders is critical for nascent small and medium enterprises' growth and survival.

According to Stam (2015: 1764), entrepreneurship relies on individuals, organisations, values, and institutions. Early ventures are more reliant on their external environment than mature enterprises as they face significant resource constraints (Roundy & Bayer, 2019: 552). Such resource constraints, as identified by Roundy and Bayer (2019: 558), are financial capital limitations, social capital limitations, human capital limitations, cultural capital limitations and symbolic capital limitations. Nascent small and medium enterprises become financially constrained because of the difficulty in establishing normative legitimacy (Rutherford et al. 2018: 916) and unavailability of sufficient initial endowment from founders (Yang & Aldrich, 2017: 8). They have limited human capital as they are unable to recognise and hire high performing workers.

Nascent SMEs are also limited in social capital as their networks are less dense and therefore enjoy limited social support. Cultural capital limitations are severe in nascent SMEs, as there are no shared collective beliefs and attitudes that support entrepreneurship. In essence, they lack "cultural artefacts" that can be leveraged for financial resources (Roundy & Bayer, 2019: 559). Nascent SMEs have limited symbolic capital as they lack a long record of success which

causes apprehension for prospective finance resource providers. This apprehension explains why creditors mostly refuse to lend to new enterprises.

It is worth emphasising that nascent businesses face a series of challenges that make them particularly vulnerable to failure (Schoonheven, 2015: 1). New businesses require new tasks to be learnt; they have no protocols for problem-solving; they rely on social interactions with strangers, and they are not related in a secure way with external stakeholders (Yang & Aldrich, 2017: 2). New businesses also have difficulty swiftly turning assets into cash and becoming profitable (Wiklund et al. 2010: 424). As a result, a high percentage of nascent small businesses succumb to liabilities of newness and do not survive beyond five years (Amaglo, 2019: 2). As a result, it is critical to look into the influence of capital structure and profitability on nascent SMEs' solvency.

Previous research, including that conducted in Ghana, has rarely focused on the capital structure of small and medium businesses (Kumar et al. 2019:2). The majority of capital structure studies in Ghana were conducted on large, publicly traded companies. Mireku, Mensah, and Ogoe (2014) investigated fifteen large firms listed on the Ghana stock exchange and found that capital structure has an impact on firm performance. Adu (2016) also examined the relationship between capital structure and firm value using large, publicly traded firms on the Ghana stock exchange.

In Ghana, studies on SMEs have primarily focused on established rather than nascent small businesses. Abor (2007) studied the relationship between debt policy and the performance of SMEs in Ghana and South Africa by using 160 mature SMEs from the database of the Association of Ghana Industries. In exploring the factors that obstruct the growth and survival of small and medium enterprises in Ghana, Kusi and Opata (2015) used a sample of 125 established businesses. As a result of the scant studies on both SME capital structure and nascent SMEs, this study is designed to establish the influence of capital structure and profitability on the solvency of embryonic small and medium firms across all sectors of the Ghanaian economy.

In sum, even though small and medium firms play an essential function in national economies, they face solvency problems due to liabilities of newness and usually die in their nascent stage. These problems might be brought about by inappropriate firm capitalisation and low profitability. Given that SMEs typically die in their infancy, it is critical to understand the extent to which capital structure and profitability alleviate the liability of newness.

1.3 RESEARCH OBJECTIVES

The study has a primary objective and three secondary objectives

1.3.1 Primary Objective

The main objective of this study is to establish the influence of profitability and capital structure on the solvency of nascent small and medium enterprises.

1.3.2 Secondary Objectives

The following secondary objectives were developed based on the primary objective:

- i. To establish the impact of profitability and capital structure on solvency ratio of nascent SMEs.
- ii. To establish the impact of profitability and capital structure on working capital ratio of nascent SMEs.
- iii. To establish the impact of profitability and capital structure on the net worth of nascent SMEs.

1.4 THEORETICAL GROUNDING

Two major theories, Liability of Newness Theory and Capital Structure Theories, are reviewed in order to develop testable propositions in relation to the study's objective. These theories are concerned with the long-term viability and financial performance of small and medium businesses. They were the study's starting point and are briefly discussed below.

1.4.1 Liability of Newness Theory

Nascent small business survival or failure has gained attention over the years, primarily because of the liability of newness theory developed by Arthur Stinchcombe in 1965 (Abatecola & Uli, 2016: 1083). The phrase "liability of newness" theorises nascent businesses' precarious existence, implying that several would not survive beyond their embryonic stages (Yang & Aldrich, 2017: 2). The theory contends that nascent businesses go through complex challenges that restrict their viability. The theory has gained support and acceptance as several studies such as Abatecola (2013) and Dobson, Breslin, Suckley, Barton and Rodriguez (2013) attest to its universality. According to Yang and Aldrich (2017: 2), many subsequent studies conducted on various populations lend credence to this age-dependent theory even when confounding variables such as size were held as controls.

Failure rates are high for new organisations for many reasons. New organisations must spend time and money to create new roles and new workers to carry out their duties. Schoonhoven (2015: 1) emphasises that assigning employees to new tasks entails ambiguity and negotiation and can lead to interpersonal tension and temporary inefficiencies. In older businesses, coordinated positions may act in tandem to perform a given responsibility. In new businesses, however, employees must define and execute the whole set of responsibilities. The liability of newness theory also indicates that nascent businesses rely on "social relations with strangers".

According to Schoonhoven (2015: 1), interpersonal trust among stakeholders of nascent SMEs is very low; for example, co-worker relationships are precarious because they do not trust each other to perform their responsibilities at a tolerable level of competence. External stakeholders such as customers and suppliers can also be difficult for new businesses to establish legitimacy and relationships with (Schoonhoven, 2015: 2). Older organisations cultivate ties between themselves and customers so that there is a high switching cost that the customer must incur to switch to a new business. Schoonhoven (2015: 2) adds that there is also a liability of innovation for new businesses as it takes time for nascent SMEs to establish necessary expertise in producing goods or rendering services. Furthermore, it takes time for revenues to be realised in the market, and new businesses may have to endure a period where expenses exceed sales. The longer nascent businesses have no stable profits, the higher the likelihood of insolvency (Schoonhoven, 2015: 2).

As Schoonhoven (2015: 2) points out, the liability of newness theory is based on the fact that building internal and external relationships, trust, and legitimacy takes time. A social framework would have been created to support the nascent business's survival chances after roles had been established and refined, and relationships with stakeholders had been formed. As a result of the significant liabilities of newness that nascent businesses face, as theorised by Stinchcombe in 1965, this study aims to look into how profitability and capital structure influence solvency and increase the chances of new venture survival.

1.4.2 Capital Structure Theories

This study is also rooted in theories that explain the financing preferences of firms. Even though capital structure theories mostly focus on large, listed firms (Baker, Kumar & Rao, 2017: 2), they are useful to identify the financing decisions of small businesses (Daskalakis & Psillaki, 2008: 89). In order to maximize profits, any business organization, large or small, must find the best balance of debt and equity. Profitability has always been a key factor in evaluating a

company's efficiency, as sufficient profits are required for the company's long-term viability (Minnema & Anderson, 2018: 1).

In 1958, Modigliani and Miller proposed a theory that demonstrated the irrelevance of capital structure. Businesses operate in efficient environments, according to the theory, and debt or equity options have no effect on a company's cost of capital. This meant that capital structure had no bearing on the firm's worth or profitability. Modigliani and Miller, however, revised their position in 1963, stating that debt levels were indeed relevant. The new outlook addressed the concept of debt producing interest as a tax shelter, implying that the company would continue to use high leverage to maximize its value. Modigliani and Miller's revised argument favours high debt levels for firm value and profitability (Minnema & Anderson, 2018: 3). Capital structure, according to the theory, is critical to profitability.

According to the trade-off theory, firms should have an optimal capital structure in order to achieve high firm value or profitability (Myers, 1984: 577). Rather than advocating for businesses to increase their debt levels indefinitely in order to increase their value, the trade-off theory suggests that businesses should strive to balance debt and equity in order to maximize their performance (Myers, 1984: 577). Leverage brings about tax shields but also possible financial distress. Thus, the trade-off theory suggests that debt has an initial positive relationship with profitability. However, gains from tax shields could be offset by the possibility of insolvency and financial distress (Minnema & Andertson, 2018: 16). Therefore, the trade-off theory indicates that at moderate levels of leverage, debt has a positive relationship with profitability. The theory suggests that firms that are profitable and have a low possibility of insolvency and financial distress will have more debt. Conversely, financially distressed firms will borrow less (Chipeta, 2012: 29). Leverage provides tax benefits while also posing the risk of financial distress. As a result of the trade-off theory, debt appears to have a positive initial relationship with profitability. However, the benefits of tax shelters may be offset by the risk of insolvency and financial distress (Minnema & Andertson, 2018: 16). As a result of the trade-off theory, debt has a positive relationship with profitability at moderate levels of leverage. According to the theory, profitable businesses with a low risk of insolvency and financial distress will have more debt. Firms in financial distress, on the other hand, will borrow less (Chipeta, 2012: 29).

The pecking order theory suggests that firms favour internal funds to external funds to achieve shareholder wealth maximisation. In cases where they have only the option of external funding, they prefer debt (Aktas, Bellettre & Cousin, 2011: 44). The choice of internal funds over

external funds minimises the cost of transmitting information on the firm's existing assets and growth opportunities to a potential external financier (Aktas et al. 2011: 46). There is also a transaction cost involved in issuing debt or stock. According to Aktas et al. (2011: 44), when the choice is only between debt and equity, debt is utilised to ward off adverse selection problems. In small businesses, the use of debt allows the owner to preserve their control of the business. Using external equity is, therefore, the last option for small businesses.

Because they have less access to external funds than large enterprises, SMEs appear to face a more extreme version of the pecking order theory, referred to as a "constrained" pecking order theory (Holmes & Kent, 1991: 141) and a "modified" pecking order theory (Ang, 1991: 201). According to Holmes and Kent (1991: 145), in SMEs, managers are often the business owners, and they do not want to lose their ownership claim. Because of this arrangement, Hall et al. (2000: 299) argue that information asymmetry and agency problems which give rise to the POT, are more prominent in small enterprises. Myers (1984) proposes a modified pecking order (MPO) of financing preferences for SMEs as an alternative to this restricted POT. Because the MPO theory integrates parts of the trade-off theory, it has a well-defined target debt ratio. Myers (1984) advanced the premise that a profitable firm would have an unusually lower debt ratio than its industry's average based on the MPO theory. The pecking order theory is pertinent to this study because it clearly describes how firms make their financing choice. Several studies, such as Flannery and Rangan (2006: 478) and Leary and Roberts (2010: 351) have confirmed the validity of the theory.

Signalling theory, one of the capital structure theories, is about the signal that managers or entrepreneurs send to potential investors regarding the value of their establishment. The central tenet of the theory, as originated by Ross in 1977, is that the actions of managers could send varying signals to the market. Such signals are positive when firms use debt as it indicates a conviction in future earnings (Chipeta, 2012: 33). The rationale is that firms that use debt are confident in paying both principal and interest. The signalling theory is germane to this study as it helps establish a hypothesis that capital structure influences solvency.

This study is also rooted in the life cycle theory. The lifecycle theory assumes that every organisation, like all other things, has a lifecycle in which it is born, grows, matures, and eventually dies (Sharifabadi & Baniasadi, 2014: 2026). The organisational life cycle is a term that describes how a company may evolve and what specific requirements or difficulties should arise at each stage in order for the company to better position itself through strategic formulation. According to the life cycle idea, organisations develop over time and experience

progressive changes in things like firm size, structure, and resources (Gupta & Chin, 1993:28). The life cycle theory also shows that once a business is established, it should go through three stages: growth, maturity, and decline (ur Rehman, Man, & Haoyang,2017:32). Thus, as a company matures, it becomes less informationally impermeable, and so funding sources become more eager to supply capital (Lundmark, 2017:93). As a result, at the start-up stage, the enterprise relies on personal savings, trade credit, and finances from family and friends because external funding is in short supply.

1.5 OVERVIEW OF THE RESEARCH CONSTRUCTS

The impact of profitability and capital structure on nascent SMEs' solvency was examined using three major constructs. The following paragraphs attempt to define and expand on each of them to improve the study's comprehension.

1.5.1 Capital Structure

A business venture's capital structure is a specific combination of debt and equity (Acaravci, 2015: 158). Businesses may choose to finance solely with debt, solely with equity, or a combination of the two. The following paragraphs will explain debt and equity and their respective effects on the business's overall health.

1.5.1.1 Debt

Debt is an arrangement that a business goes into with a lender to provide funding at an interest that can be either floating or fixed (Abor, 2017: 39). Debt may come in the form of bank loans, trade credit and asset-based lending *inter alia* (Abor, 2017: 38). Bank loans are the most common source of external funding for most small and medium enterprises (OECD, 2015: 29). Asset-based lending is also widely used by small and medium enterprises, and it is based on the value of the individual assets and not on the debt status of the business (OECD, 2015: 40). Asset-based lending has the advantage of being faster and flexible (OECD, 2015: 40). This could help nascent entrepreneurial firms to secure financial buffers to diminish the impact of liability of newness.

Small and medium businesses can use asset-based lending to boost cash flow and seize growth opportunities, according to the OECD (2015, 40). Small business owners who are able to develop a debt strategy are more likely to lower their capital costs while increasing efficiency and profitability (Yazdanfar & Ohman, 2015: 2). The findings of the relationship between debt and profitability in the existing literature, on the other hand, are inconsistent. In contrast to Yazdanfar and Ohman (2015), Salim and Yadav (2012) used a regression model to find that

debt is negatively related to return on assets, return on equity, and earnings per share in a sample of 237 Malaysian publicly traded companies.

On the other hand, Grycova and Stekla (2015) discovered a negative relationship between leverage and profitability. Minnema and Anderson (2018) investigated the link between leverage and profitability in Swedish businesses. They concluded that businesses should finance their operations primarily with internal funds, as leverage leads to a loss of profitability. Mat Nawi (2015: 42) agreed with this assertion, arguing that while profitable businesses may find it easier to obtain bank loans, they prefer to use less debt to reduce the risk of insolvency. However, according to Mat Nawi (2015: 52), citing Shaw (2004), small and medium businesses require an appropriate mix of equity and debt to increase productivity. The level of debt and equity that minimizes the cost of capital and maximizes profitability is defined as an appropriate debt to equity ratio (Md Yusoff, 2017: 4). Sing and Bagga (2019: 65), citing Azhagaiah and Gavoury (2011), argue that, while companies can choose between debt and equity, the best financing option is a combination of the two. Managers must structure their capital structures so that debt and equity work together to reduce capital costs and boost profits (Sing & Bagga, 2019: 66).

Abor (2005) investigated the impact of capital structure on the profitability of Ghanaian listed companies and discovered a link between firm leverage and profitability. The relationship between capital structure, profitability, and firm value of listed firms in Kenya was investigated by Kodongo et al. (2015). The study found a statistically significant relationship between leverage and profitability using annual data from 2002 to 2011. According to Kodongo et al. (2015: 2), capital structure is a significant predictor of profitability. Perhaps the dichotomy in findings is a result of the divergent systems and varying firm performance indicators that have been used in different studies (Yazdanfar & Ohman, 2015: 5). This study is situated in the midst of this divergence in the existing literature.

As the trade-off theory claims, businesses determine the proportion of debt usage by weighing the benefits and costs of such a financing decision (D'Mello, Gruskin & Kulchania, 2017: 352). Mclean and Palazzo (2017: 1) suggest that many businesses that use debt do so because they are liquidity squeezed. This implies that illiquid businesses cannot sustain their cash burn rate without debt. When enterprises use debt capital, they gain advantages in the form of tax shields, dissipating agency problems and transmission of positive signals about future earning potentials (Legesse & Guo, 2020: 108). This assertion is adapted from capital structure theories. The advantages of debt notwithstanding, it could lead to financial distress. According

to Wiklund et al. (2010: 427), leverage carries a high risk of insolvency. As a result, small business borrowing should balance possible gains and bankruptcy arising out of high leverage (Legesse & Guo, 2020: 108).

Unlike large, listed firms with publicly listed financial data, financial information on small and medium enterprises is mainly scarce. There is, therefore, asymmetric information between business owners and lending institutions (Cillero, Lawless & O'Toole, 2019: 4). In their bid to mitigate risk, lenders typically include loan covenants in commercial debt agreements (Oranburg 2016: 59). Such loan covenants may consist of providing audited financial statements to the lending institution at regular intervals (Abor, 2017: 48). Extension of debt is also reliant on the availability of collateral (Abor, 2017: 39).

Businesses with high growth prospects, according to Cillero et al. (2019: 24), are more likely to use debt. It is possible to use debt to fund growth because it can result in high profitability and eliminate the liability of newness. In Ghana, Abor (2008) compared the capital structures of publicly traded companies, large unlisted companies, and small and medium enterprises (SMEs). Large firms in Ghana have more debt in their capital structure than SMEs, according to the study (Abor, 2008: 21). Nonetheless, SMEs in Ghana were discovered to be heavily in debt. Short-term debt and long-term debt accounted for 36.5 per cent and 5.20 per cent, respectively, of SMEs' total assets in Ghana (Abor, 2008: 22).

1.5.1.2 Equity

Entrepreneurs' choice of funding could affect an enterprise for a lifetime and determine its probability of success and the benefits that come to it (Abor, 2017: 21). Small and medium businesses could choose to fund their operations with equity *inter alia*. In a survey of 309 small businesses in India, Baker, Kumar and Rao (2017: 4) concluded that an overwhelming majority of small business owners prefer to finance their ventures with some form of equity. In their study, 92 per cent of respondents expressed a preference for retained earnings while owner funds followed with 88 per cent.

This preference for such forms of equity may be for a variety of factors, such as retaining a 100 per cent ownership (Kupp et al. 2019: 274). In emerging economies, due to information asymmetry and thin financial markets, loanable funds are expensive, and hence internal financing is cheaper than external debt financing (Nguyen & Rugman, 2015: 469). According to Chaklader and Chawla (2016: 271), profitable SMEs use internally generated equity such as retained earnings in keeping with the pecking order theory. Minnema and Anderson (2018: 53)

concluded that firms that used equity as their primary funding source recorded higher profitability.

Another advantage is that the use of equity could keep the liability of newness at bay. Nguyen and Rugman (2015: 448) examined equity financing and the performance of businesses. The study used original survey data from six emerging economies. The study concluded that equity generated from internal sources is a firm-specific advantage that improves performance. A healthy financial position can help to mitigate the liability of newness (Wiklund et al. 2010: 426). As a result, the use of equity could help nascent small and medium businesses succeed.

Generally, equity refers to the sum that owners pay as capital to fund the operations of the business. It also includes profits that are kept and ploughed back into the business's operations (Abor, 2017: 32). Equity financing does not increase liability as there is no interest to be paid. Sources of equity that are generated internally include bootstrapping finance and retained earnings. These typologies of business funding lead to no relinquishing of equity position. According to Wingborg (2015: 198), the liability of newness of nascent SMEs includes difficulties in securing funding from external stakeholders. The use of such type of financing could, therefore, reduce the effects of liability of newness.

Equity financing also includes a wide range of external investment methods in which the venture raises funds from equity investors in exchange for a portion of the company's control (OECD, 2015: 106). Equity investors engage in entrepreneurial risk-taking, as the investee business venture offers no insurance, and the firm's performance solely determines the return on the investor's investment. Entrepreneurs only use this type of equity financing as a last resort, according to the pecking order theory (Walthoff-Borm, Schwienbacher & Vanacker, 2018: 515). The theory indicates that due to information asymmetry involving business organisations, investors, and lenders, the order of financing preferences starts with retained earnings, a form of internal equity, followed by debt and external equity (Hugan, Hutson & Drbevich, 2017: 236).

Information asymmetry leads to higher agency cost for potential investors. Equity investors respond to the high agency cost by introducing rigorous governance structures, which lead entrepreneurs to feel a loss of control (Kupp, Schmitz & Habel, 2019: 271). This strict governance structure further pushes small business owners from considering external equity in their financing decisions. Small business owners prefer to take steps that allow them to retain control and prevent acts that challenge their power even at the peril of financial performance

(Kupp et al. 2019: 274). The lack of attractiveness of external equity is in spite of the fact that it provides potential advantages such as the extension of management skills and access to professional advice (Marti et al., 2013:421).

For some small business owners, however, the desire for control does not preclude the consideration of external equity financing (Kupp et al. 2019: 287). Some SMEs may use external equity financing as a result of this assertion. Kupp et al. (2019: 288) focused on family businesses and observed that small business owners make the external financing decision by juxtaposing the need for control against the level of investor interference in a process, albeit emotional. The loss of business control is not helped by studies such as Rose and Solomon (2016:98), which asserts that using market-based equity funding results in reduced profitability.

In some instances, small businesses that opt for external equity financing have not obtained funding because investors find them informationally opaque (Zaleski, 2011: 44). Nascent small and medium enterprises cannot easily communicate their quality. Hence, it is challenging to establish legitimacy with equity investors (Rutherford et al., 2018:926). However, as nascent SMEs transition into mature businesses, information asymmetries decline, and they have access to broad sources of funding such as external equity (Hogan et al., 2017: 237).

In keeping with the pecking order theory, Chaklader and Chawla (2016: 271) observed that profitable businesses use equity generated internally. Singh and Bagga (2019: 77), after analysing the effect of capital structure on fifty companies between 2008 and 2017, concluded that equity is directly related to profitability. According to Cultera and Bredart (2016: 114), the probability of SME failure is high for firms with low equity to asset ratio as profitability and liquidity are also low in such firms.

Businesses become financially distressed when they get into irrecoverable insolvency (Yeo, 2016: 235). Nascent enterprises have a much higher chance of survival if they can swiftly turn assets into cash, become profitable and do not have to rely on debt but retained earnings (Wiklund et al. 2010: 424). Firms with positive cash flow are generally equity-financed and are solvent (Yeo, 2016: 239). SMEs that are mostly equity-financed have less encumbered assets, which can serve as collateral or buffer against insolvency if the occasion arises. Hence low leverage and high equity to asset ratio reduce the possibility of nascent SME failure (Wiklund et al. 2010:427).

Empirical evidence supports the fact that firms prefer internally generated equity while accepting the fiscal role of debt, according to Abor (2008:23), who studied the determinants of capital structure of Ghanaian firms. Because small businesses in Ghana do not have entrée to public equity markets, they rely on retained earnings and angel investors for equity funding (Abor, 2008: 23). Private equity funds, on the other hand, can be a good source of funding for well-run businesses (Breuer & Pinkwart, 2018: 319).

1.5.2 Profitability

Profitability is the ultimate measure of a company's economic success in relation to the capital invested in order to obtain an acceptable return on the volume of risk agreed upon by the owners and lenders (Lamberg & Vlming, 2009:8). The profits of an organisation, big or small, are the computational outcome of two variables; sales and cost (Stanley & Wasilewski, 2017: 141). Profitability reflects a business venture's capacity to make a profit through the use of production factors and capital (Leon, 2018: 70). It indicates how well the firm is meeting set objectives (Issau & Soni, 2019: 59). As such, for firms to meet their goals and survive, they have to be profitable. As noted by Dhliwayo (2016: 10), business survival relies on its profitability.

Profitability also relies on several decisions of business managers, including capital structure decisions. Singh and Bagga (2019: 77) concluded that equity is directly related to profitability. Debt has a negative influence on profitability, according to Singh and Bagga (2019: 77). Profitable SMEs, on the other hand, are creditworthy, according to Yeo (2016: 235), and thus there is a positive association between profitability and debt ratio. It needs emphasising that profitable firms are able to tolerate more debt as they are in such financial position to ward off insolvency (Abor, 2008: 9). Moreover, profitable firms have more opportunities to take on debt capital as they are more appealing to financial institutions.

If firm survival depends on profitability and capital structure, then as Cultera and Bredart (2016: 104) posit, the firm's financial health is a matrix of capital structure, profitability, and solvency. This is because insolvency is the indicator of financial distress (Yeo, 2016: 235). Boata and Gerdes (2019) studied the insolvencies of 1,653 SMEs in Europe and identified three phases that lead up to business failure. According to Boata and Gerdes (2019: 2), a business goes through a strategy crisis, profitability crisis, and solvency crisis before failure. A decline in profitability is the most significant precursor to insolvency (Boata & Gerdes, 2019: 2). Wiklund et al. (2010: 423) also show that leverage, profitability, and liquidity are fundamental financial management constructs that can affect firm failure. According to Wiklund et al.

(2010: 423), high profitability, high liquidity, and less leverage serve as buffers against the liability of newness.

1.5.3 Solvency

An organisation is considered financially distressed and insolvent when total liabilities are greater than a reasonable valuation of the firm's assets (Almansour, 2015: 118). In such a situation, the net worth of the business is negative (Yeo, 2016: 237). For an entity to be considered solvent, it has to have more assets than liabilities (Powers, 2015: 46). Highly leveraged businesses are at an increased risk of insolvency and default if they are unable to pay for obligations as they become due (Almansour, 2015: 118). According to Boata and Gerdes (2019:2), the first phase that firms go through before collapsing is the strategic phase, in which business owners and managers must make several strategic decisions. Such decisions could include the type of funding chosen. If the strategic crisis continues, financial distress will worsen.

The second stage, the profitability crisis stage, results from an ineffective strategy, such as an ineffective capital structure. According to Boata and Gerdes (2019:5), the profitability crisis manifests as declining operating profits and shrinking cash flows. This severe cash flow shortage causes the company to fall behind on payments and obligations, causing it to enter insolvency (Culetera & Bredart, 2016:128).

A poorly configured capital structure could lead to insolvency. According to Pei and Chen (1998), as cited by Liu, Wang and Cheng (2012: 1343), organisations should consider solvency sustainability in their capital structure framework. The insolvency of a business can result in dissolution, liquidation, bankruptcy or an unplanned acquisition which are all forms of firm failure (Salazar, 2006: 1). According to Na and Smith (2013: 30), firms with capital structures close to an economically relevant equilibrium will perform well in competitive markets and be more likely to be solvent and survive than those further afield.

Businesses that fail to pay their debts are frequently unprofitable (Levratto, 2013: 5). Nunes, Viveiros and Serrasqueiro (2012: 456) affirm that solvency is a function of profitability as it contributes to a higher possibility of nascent SME survival. A default represents a situation of a business that is not profitable and whose capital is not creating value (Levratto, 2013: 5). The cessation of payments of obligations is the final step in the business failure process Leveratto (2013: 5). Small and medium enterprises with minimal debt burdens stand a better chance of survival since such businesses are solvent (Rico, Pandit & Puig, 2020: 5).

Businesses are effectively insolvent if they are unable to consistently achieve their corporate, financial, and social objectives on a consistent basis (Levrato, 2013: 25). Even though numerous discriminant factors for insolvency exist, Levrato (2013: 27) identifies the major financial reasons for insolvency as capital loss, inability to secure new capital, and high leverage. When a firm is highly leveraged, the risk of default rises (Almansour, 2015: 118), and liabilities may exceed assets (Powers, 2015: 46). In these cases, the cost of debt rises, resulting in high financial risks and the possibility of bankruptcy (Boata & Gerdes, 2019:2).

As posited by Cultera and Bredart (2016: 115), nascent SMEs are more liable than older businesses to be insolvent. Yang and Aldrich (2017: 28) found that small and medium enterprises that had a positive cash flow over a considerable period had at least a 65 per cent chance of neutralising the liabilities of newness. Cash is, therefore, central to nascent SME survival as it represents adequate financial slack (Wiklund et al. 2010: 429). Financial slack is the uncommitted and underutilised capital that can be quickly deployed to meet business objectives (Canes, Simon & Karadag, 2019: 57).

Even though financial slack can point to managerial inefficiency, it also enhances SME performance (Guo, Zou, Zhang, Bo & Li, 2019:8). Businesses that make the right capital structure decisions should be able to generate positive net cash flow (Chung, Na & Smith, 2013: 84), which should serve as a buffer against the liability of newness. As Gupta (2014:51) points out, businesses that are unable to generate adequate cash flow are likely to experience financial distress.

A major source of insolvency is illiquidity (Liu, Wang & Chen, 2012: 1344). Liquidity reflects the proportion of existing liabilities that are financed by current assets (Liu et al. 2012: 1344). In the face of funding constraints, a company that is not liquid may enter default and become liquidated (Gryglewicz, 2011: 365). Kontus and Mihanovic (2019: 3255) investigated the management of liquidity and liquid assets in small and medium businesses and established a statistically significant link between liquidity and profitability. Positive cash flow was also found to herald an increase in liquidity (Kontus & Mihanovic, 2019: 3256).

Therefore, to maintain solvency and survive, nascent small and medium enterprises should hold enough cash. SMEs that hold enough cash have higher current assets than current liabilities. As a result, for such firms, the problem of illiquidity is remedied (Kontus & Mihanovic, 2019: 3256). As indicated by Yapa (2015: 10), a deficit in liquidity is a major cause of business failure. High liquidity sends external stakeholders a signal of legitimacy as it demonstrates the

ability of the business to honour commitments and stay alive (Wiklund et al. 2010: 427). It is important for SMEs to pay attention to their capital structure and profitability to meet obligations and prevent insolvency.

1.6 RESEARCH DESIGN AND METHODOLOGY

This study establishes the influence of capital structure and profitability on the solvency of SMEs. In research, the researcher should describe the data collection methods used, explain why the findings are useful, and identify any research limitations (Saunders, Lewis & Thornhill, 2012: 5). As a result, the research design is the overall strategy for answering the research questions (Saunders et al. 2012: 136). It explains how hypotheses and phenomena are tested and evaluated, as well as how evidence is presented in order to solve the research problem. The research design must include clearly defined objectives derived from the research questions, as well as the data sources to be used (Saunders et al. 2012: 137).

1.6.1 Quantitative Research Design

To determine how financing decisions affect SMEs' financial performance and limit the liability of newness, a quantitative research technique was chosen. Quantitative research concentrates on the variables under study and their relationships and effect on the different units (Leavy, 2017:63). Quantitative research conveys, among others, the population of interest, the research settings and the relationship of the variables being tested (Leavy, 2017: 63). Data is collected and statistically analysed in this mono quantitative study to reveal the association between capital structure, profitability and solvency of SMEs. The study employs a positivist research philosophy. Positivists are concerned with observing and predicting outcomes by using scientific methods to test hypotheses with samples of quantitative data (Saunders & Tosey, 2015: 58).

1.6.2 Sampling design

When conducting scientific research, sampling should be considered. It is referred to as a census when data from the entire population can be analysed (Saunders, Lewis & Thornhill, 2012: 212). A census of nascent SMEs in Ghana's metropolitan areas of Accra, Kumasi, and Tema is conducted in this study. This allows the researcher to collect information from all willing and accessible members of the population.

1.6.3 Target Population and Sampling Frame

The population of the study refers to the entire group of cases from which a sample is taken (Saunders et al., 2012: 212). It is not necessary for the population to be made up of people

(Saunders et al. 2012: 212). The unit of analysis in this study is small and medium businesses in the Accra, Kumasi, and Tema metropolitan areas. Ghana's capital city is Accra. Tema and Kumasi are also large cities in Ghana, with a diverse range of small businesses (Ghana Statistical Service, 2013). As a result, the population of this study includes all small and medium enterprises registered with the National Board for Small Scale Industries in Accra, Kumasi, and Tema. Such registered SMEs have defined operational structures and they operate within the formal sector of the economy. They are bound by law to file audited annual returns (Aryeetey & Ahene, 2005:15). Hence, in order to maintain good legal standing with regulatory agencies, they keep financial records prepared by certified chartered accountants.

A sampling frame is a group of units from which a sample can be taken. When determining whether cases act as sources for a sample frame in a survey, the most critical factor is the extent to which the target population is represented in the context (DiGaento, 2013: 296). Available list from the National Board for Small Scale Industries (NBSSI) of Ghana shows that there are 7858, 433 and 2045 SMEs in Accra, Kumasi and Tema metropolitan areas, respectively, registered with the board. This makes a total population of 10,368 SMEs. While the total number of SMEs is 10,368, not all of them are nascent ventures. This research focuses on SMEs that are less than five years old. It is this category of Ghanaian small businesses that struggle the most to survive (Kusi, Opata & Narh, 2015:707). Therefore, for units to be included in this study, they should meet this selection criterion. 1,106 SMEs met the selection criteria and were the focus of this study.

1.6.4 Sampling Method

A census was employed to study all the units in the sampling frame. A census is the collection of data from every potential unit in the sampling frame (Saunders et al. 2012: 588). It ensures that there is no sampling error and that accurate estimates of the population are deduced (Rungani & Potgieter, 2018: 6). Using a census, the researcher gathered data on all members of the population.

1.6.5 Sampling Size

A sample is the number of cases from whom data is generated (Leavy, 2017:76). As a result of using a census in this study, all units of the accessible population are surveyed. Data was collected on 1,106 nascent SMEs in Accra, Tema, and Kumasi registered with the National Board for Small Scale Industries.

1.6.6 Data Gathering Technique

The purpose of this study is to establish the influence of capital structure and profitability on solvency. The essence is that when nascent small and medium enterprises see an uptick in profitability, they will be able to build financial buffers to prevent insolvency and ward off the liability of newness. Data to be used is mainly financial statement information sourced from the National Board for Small Scale Industries. The required financial ratios for each SME in the study sample are calculated from the financial statement data.

Ratios are X/Y arithmetic relationships that analysts can manipulate in two ways. For starters, they limit the size of financial data. As a result, even if the underlying financial information on the financial statements is not numerically comparable, ratios from different businesses can be compared. Second, ratios control for industry-specific features (Jewell & Mankin, 2011: 80). The debt ratio, debt to equity ratio, and equity ratio are used to assess capital structure. Return on assets, return on equity, and net profit after tax are used to determine profitability. Net worth, working capital, and the solvency ratio are used to assess solvency.

1.6.7 Data Analysis

Data analysis is a process that helps researchers categorise trends, apply statistical methods, and summarise data by combining it into a manageable and suitable size (Cooper & Schindler, 2008:93).

Multiple Regression Analysis

The study looks at the relationships between a number of explanatory variables. When a dependent variable is thought to be linked to two or more independent variables, multiple regression is the appropriate statistical method of analysis. Changes in the dependent variable as a result of changes in the independent variable are forecasted using multiple regression analysis (Hair et al., 2010: 17).

In multiple regression models, many variables can be used separately or together to explain variation in the dependent variable. Furthermore, by keeping the remaining conditions constant, the results obtained using multiple regression show the unique contribution of each parameter to the overall variance in the outcome variable (Fávero, Belfiore, 2019: 467). It can figure out how well a set of variables can predict a particular outcome (Pallant, 2010: 148.). As a result, in line with previous research such as Abor (2015) and Ayepa, Boohene, and Mensah (2019), this study employs the multiple regression technique to test the constructs' dependency

relationships. In the following three regression equations, the relationship between profitability, capital structure and solvency are estimated.

$$SR_i = \beta_0 + \beta_1 ROE_{i,1} + \beta_2 ROA_{i,2} + \beta_3 NPAT_{i,3} + \beta_4 DR_{i,4} + \beta_5 DER_{i,5} + \beta_6 ER_{i,6} + \beta_7 SIZE_{i,7} + \beta_8 SG_{i,8} + \tilde{\epsilon}_{i,t} \quad (1)$$

$$WCR_i = \beta_0 + \beta_1 ROE_{i,1} + \beta_2 ROA_{i,2} + \beta_3 NPAT_{i,3} + \beta_4 DR_{i,4} + \beta_5 DER_{i,5} + \beta_6 ER_{i,6} + \beta_7 SIZE_{i,7} + \beta_8 SG_{i,8} + \tilde{\epsilon}_{i,t} \quad (2)$$

$$NW_i = \beta_0 + \beta_1 ROE_{i,1} + \beta_2 ROA_{i,2} + \beta_3 NPAT_{i,3} + \beta_4 DR_{i,4} + \beta_5 DER_{i,5} + \beta_6 ER_{i,6} + \beta_7 SIZE_{i,7} + \beta_8 SG_{i,8} + \tilde{\epsilon}_{i,t} \quad (3)$$

Where:

SR_i , is the Solvency Ratio for SME i in the population

WCR_i is the Working Capital Ratio for SME i in the population

NW_i , is the Net Worth for SME i in the population

ROE_i , is the Return on Equity for SME i in the population

ROA_i , is the Return on Assets for SME i in the population

$NPAT_i$, is the Net Profit after Tax for SME i in the population

DR_i , is the Debt Ratio for SME i in the population

DER_i is the Debt-to-Equity ratio for SME i in the population

ER_i , is the Equity Ratio for SME i in the population

$SIZE_i$, is the log of total assets for SME i the population

SG_i , is sales growth for SME i in the population

$\tilde{\epsilon}_{i,t}$ is the error term

The β 's are the coefficients for every independent variable.

1.7 SIGNIFICANCE OF THE STUDY

Many studies have been conducted on capital structure. However, most of them overlook unlisted small and medium businesses in favour of publicly traded companies (Yazdanfar & Ohman, 2015:1). Despite the well-documented importance of SMEs to national economies, this is the case. In South Africa, SMEs contribute up to 57 per cent of the country's gross domestic product (GDP) (Jili, Masuku & Selepe, 2017: 1). Small and medium enterprises

employ 80 per cent of Ghana's workforce, according to Abor and Quartey (2010), as cited by Ayepa et al. (2019:2). As a result, SMEs are referred to as economic engines worldwide (Khan & Abasyn, 2017: 373). Previous studies in the Ghanaian context, such as Abor and Quartey (2010), Abor (2007), and Boohene et al. (2019), have all focused on mature SMEs. This study pushes the envelope by focusing on fledgling SMEs.

The application of capital structure theories to small and medium businesses is critical because most capital structure studies in Ghana focus on large publicly traded companies. This study determined whether small businesses fail as a result of their capital structure and profitability circumstances by examining the effect of capital structure and profitability on the solvency of nascent small and medium enterprises. Although capital structure theory is a well-established theoretical field (Pretorius, 2013:546), combining it with the concept of liability of newness allows us to show how the right financing decision aids in the growth and survival of nascent SMEs.

In the existing literature, it has been stated that nascent small businesses die at an alarmingly high rate. Fatoki (2014:922) claims that SMEs in South Africa have a high failure rate, which paints a bleak picture for job creation, economic growth, and poverty reduction. SMEs in Ghana are threatened by a number of factors that may cause them to fail rather than thrive (Donkor, Donkor & Kwarteng, 2018: 63). Studies on SME failure, such as Wolmarans & Meintjes (2015) did not necessarily focus on nascent entrepreneurial firms.

Fatoki (2014) studied the causes and failure of new small and medium enterprises in South Africa. In contrast to his study, the current study is empirical and draws on 1,106 nascent Ghanaian SMEs. This study adds to the literature by investigating the capital structure of nascent small businesses in Ghana, which has a significant impact on solvency. The liability of newness is reduced when solvency is improved. This study is even more significant because many studies focus on SMEs' access to finance or failure as a result of a lack of access to finance, but few focus on possible failure as a result of capital structure and enterprise profitability.

This study is situated within the milieu of Ghanaian SMEs because, as is consistent within the sub-Saharan business environment, the challenging path that small and medium enterprises in Ghana are compelled to traverse is gaping. Therefore, based on the challenges that SMEs in Ghana face, they must embrace and enforce all business strategies to survive (Isaau & Soni, 2019: 56). The study makes significant theoretical contributions by setting out the conceptual

links between the typology of funding and SME survival. The study also contributes to the liability of newness literature and blaze the trail within the Ghanaian context on how financing decisions could create legitimacy for nascent small and medium enterprises. This study also contributes to the literature on capital structure theories, especially within the domain on small and medium enterprises.

1.8 CHAPTER CLASSIFICATION

The chapters in this thesis are organised as follows:

Chapter 1: Introduction and Background of the Study: This chapter contains the introduction and background. Also included in this chapter is the problem statement, research objectives, theoretical grounding, and an overview of the research constructs, research design and methodology and the significance of the study.

Chapter 2: Literature Review: The chapter examines scholarly resources such as books, journal articles, and theses related to the liability of newness, capital structure, profitability, and solvency of small and medium enterprises. It also contains the conceptual model and hypotheses development: The model illustrates the various constructs contained in the study.

Chapter 3: The chapter is an overview of SME development in Ghana. It outlines the broad milieu for the study by emphasizing the importance of macroeconomic environment to small business survival.

Chapter 4: Research Design and Methodology: This chapter focuses on the research design and methodology that underpins the study. It also includes data collection methods that were used.

Chapter 5: Data Analysis and Interpretation of Results: This chapter presents empirical findings and the interpretation thereof.

Chapter 6: Conclusion and Recommendations: In this chapter, the results are discussed, and recommendations are made.

CHAPTER 2

CAPITAL STRUCTURE, PROFITABILITY AND SOLVENCY

2.1 INTRODUCTION

This chapter reviews the literature on capital structure, profitability, solvency, and liability of newness. This chapter also contains the conceptual model and the development of hypotheses. The chapter seeks to bring out the different contexts of how capital structure and profitability affect solvency. The review looks at the three constructs through the lens of nascent small and medium enterprises. It contextualises how the liability of newness is kept at bay when the appropriate capital structure is used. Nascent small and medium enterprises also stand a better chance of surviving when profitability is high. The chapter also offers a comprehensive examination of the alternative funding sources for small and medium businesses. This section outlines an increasingly wider variety of funding options for the various needs of SMEs over each stage of their development. This chapter begins by explaining why small businesses require capital.

2.2 THE NEED FOR CAPITAL

Small and medium-sized businesses require capital to produce goods and services. Yet, many SMEs face a variety of funding challenges. However, Landström (2017:67) notes that the liabilities of newness and smallness can explain the reasons for new and growing ventures' difficulties in acquiring resources. As a result, in this section, financial capital issues and the funding preferences of SMEs are discussed.

2.2.1 Factors that Influence Financing Decisions of Small and Medium Enterprises

Small and medium enterprises play a critical function in an economy by stimulating the creation of jobs and wealth creation (Fatoki, 2011: 193). As shown in Table 2.1, small and medium enterprises contribute significantly to the gross domestic product and employment in many nations across Africa. Though small and medium enterprises are essential for economic growth and job creation, they are faced with various barriers to external funding (Veiga & McCahery, 2019:633). Small and medium enterprises are more credit-inhibited than large firms leading to seed-capital gaps. SMEs also face credit-rationing, which could lead to illiquidity and insolvency (Veiga & McCahery, 2019:634).

With credit-rationing, some SMEs are not able to raise credit even when they are prepared to pay higher interest (Lundmark, 2017: 30). In such cases, credit is only granted if the bank determines that the entrepreneur possesses the necessary personal entrepreneurial skills or

demonstrates fidelity to the venture by pledging collateral (Fraser, Bhaumik, & Wright 2015: 71). In general, budding small and medium enterprises are able to sidestep this hurdle by using internal finance, trade credit and capital from family and friends. Only after the business gains a track record, it seeks external finance (Fraser, Bhaumik, & Wright 2015: 73).

However, market characteristics are different in different countries, and whereas in some states, debt capital is prevalent, in others, the use of equity capital is the norm. The United States, for example, is an equity capital-based system where venture capitalists and business angels are dominant. Credit capital-based systems such as Germany, Austria, and Japan have banks and loan capital dominating the financial markets (Lundmark, 2017: 26). Short-term debt and long-term debt accounted for 36.5 per cent and 5.20 per cent of SMEs' total assets, respectively, in Ghana (Abor, 2008: 22). The country also has subsidy-based systems where governmental agencies such as the National Board for Small Scale (NBSSI) administer government-subsidised loans (NBSSI, 2020).

According to Lundstrom (2017: 25), the entrepreneur's choice of business funding depends on factors such as the capital intensity of the business, the growth potential, the industry type, and the legal system in the host country. In all instances and irrespective of the choice of capital, funding is the lifeblood for the survival of small and medium enterprises. As demonstrated by Cowling, Liu, Ledger and Zhang (2015: 494), small business development is related to the availability of financial capital. According to Marlow and Patton (2005), as cited by Yacus, Esposito, and Yang (2019: 62), underfunding can result in underperformance. When nascent small and medium businesses underperform, the liability of newness increases, and the possibility of failure increases. As a result, financial capital is critical for small and medium-sized businesses. A lack of access to capital means that entrepreneurs have significant unmet demand, and as such, it is a significant barrier that retards entrepreneurship (Hwang, Desai & Baird & 2019:1).

Firms finance their assets by debt, equity, or a mixture of both (Chaklader & Chawla, 2016:268). Small and medium enterprises need funding for varying reasons in relation to their stage of development. According to Abor (2017:31), SMEs in their development phase demand capital for the cause of assessing the possibility of the business concept through a process known as seed financing. At the start-up phase, funding is required to purchase assets, including raw materials from suppliers. This is the stage that the venture mostly relies on internally generated funds (Lundmark, 2017: 95).

Abor (2017: 31) explains that first-stage financing is needed by enterprises that have gained market acceptance but need external funding to increase the firm's working capital. At the stage where the income of the enterprise is growing and profitability is increasing, second-stage financing may be needed to enhance growth. Enterprises that are experiencing rapid growth requires additional external funds, and this is the point for third-stage funding as cash flow is not adequate to augment growth (Abor, 2017:32). As firms source more external funds, entrepreneurs lose more control.

Storey and Greene (2010) compared debt and equity finance and concluded that they have different characteristics and are useful for different purposes and situations. Lundmark (2017:125), citing Robb and Robison (2014), indicate that even though debt is the most widely used external source of funding, it is ill-suited for early-stage ventures. This is because financial institutions demand collateral, and debt increases interest liability which can exacerbate the possibility of financial distress (Lundmark, 2017: 125). However, debt holders have a higher claim over the firm's assets, with shareholders having a vestigial claim (Chaklader & Chawla, 2016: 267). Equity providers, on the other hand, become part-owners and share in the success or failure of the venture and hence do not demand collateral and do not increase the chance of financial distress. Equity funding involves a broad range of external investment approaches, through which the enterprise raises funds from equity investors in exchange for part ownership of the venture (Cusmano & Koreen, 2015: 106).

In the extant literature, size and age are mostly used as parameters governing the financing decisions of small and medium enterprises (Wong, Holmes, & Schaper, 2018: 37). According to Fraser, Bhaumik and Wright (2015: 74), access to funding improves with size and age. This supports the business life cycle theory, which argues that the financial need of a business is related to age. Hence as the company grows, it moves away from internal funding and turns to bank debt or external equity. At the mature stage, the business founder brings in external equity and loses a portion of control (Wong, Holmes, & Schaper, 2018: 38). As suggested by the pecking order theory, businesses tend to use internal funding initially before resorting to loans and external equity.

However, Wong et al. (2018: 36) argue that personal goals, views, experiences, and situations are also important considerations that account for financing decisions. Possible drivers of small business financing decisions, according to Wong et al. (2018:48) are underlying influences, perceptions and aspirations and decisions. This is shown in figure 2.1.

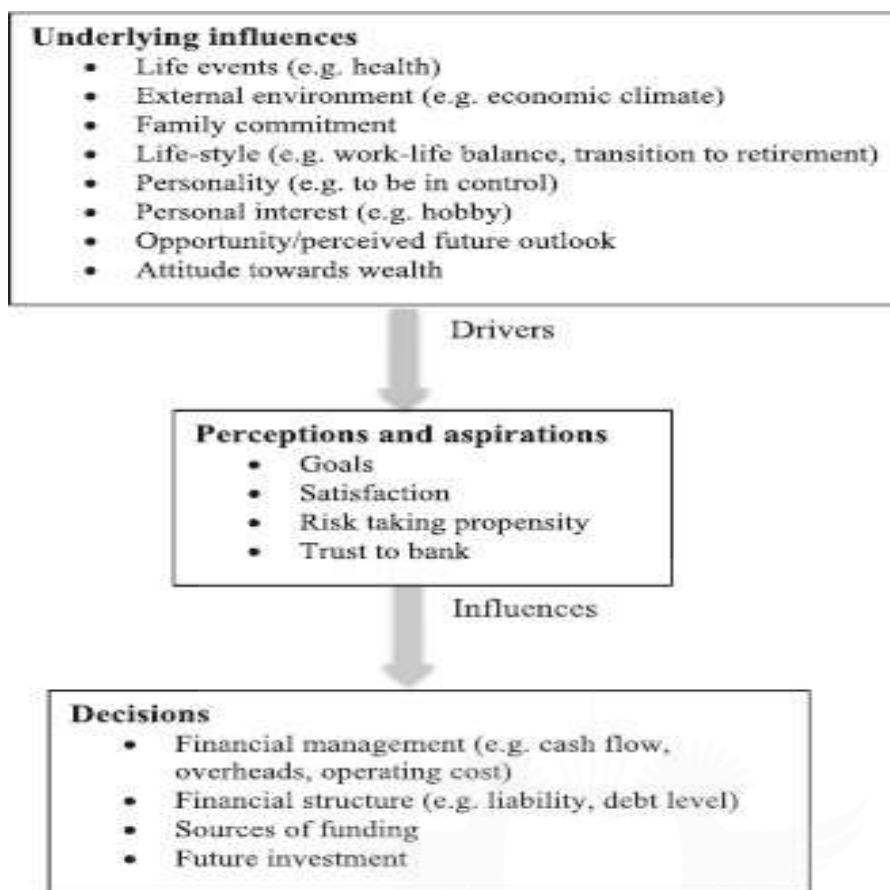


Figure 2. 1-Possible drivers of small business financing decisions

Source: Wong et al. (2018:48)

Views of the difficulty of raising debt capital are also crucial for business founders; even anticipating difficulties can deter entrepreneurs from trying to raise debt capital (Hwang et al., 2019: 16). As can be seen in figure 2.2, in a 2016 survey conducted by the Kaufman Foundation regarding businesses that wanted additional funding but did not look for it, 27 per cent believed that a lender could not have approved the company, and 9.5 per cent thought that the process would take too long. 7.9 per cent decided to wait until such a time that the business is stronger, and 7.9 per cent chose to wait until credit conditions became better. Another 7.9 per cent preferred to use retained earnings, and 3.2 per cent abandoned the process altogether (Hwang et al., 2019: 16).

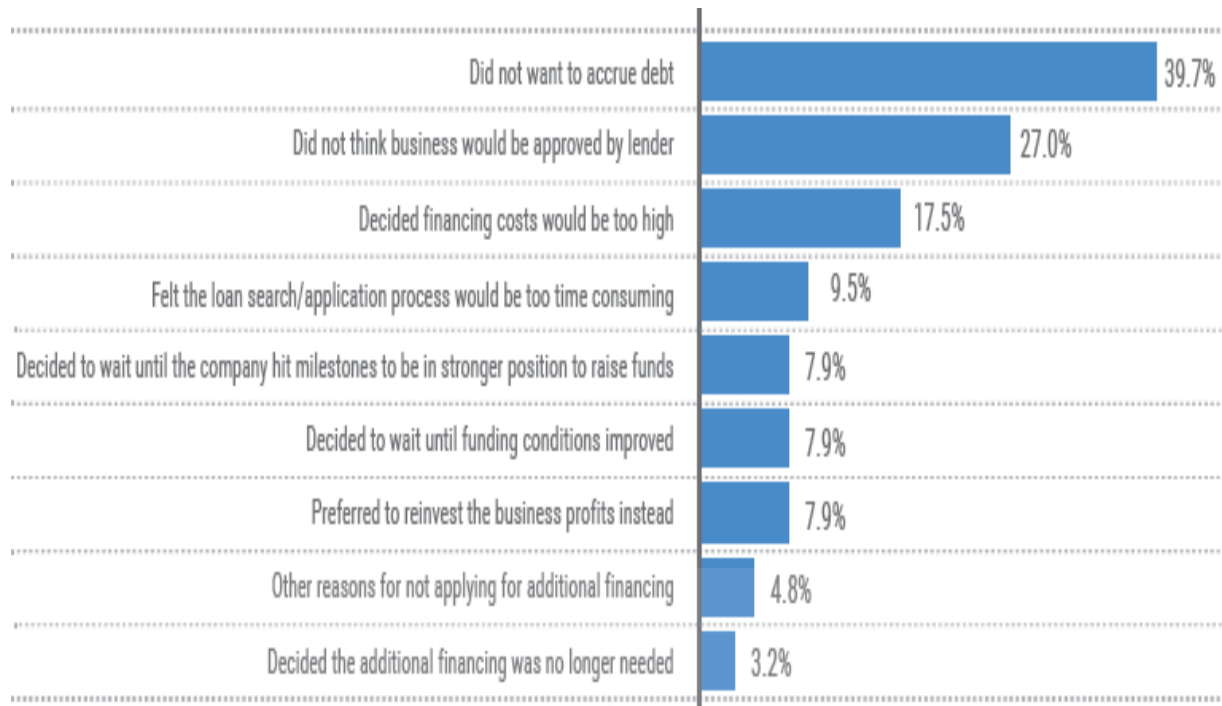


Figure 2. 2-Reasons entrepreneurs do not pursue debt capital despite the need to

Source: Hwang et al. (2019:16).

Because designing an appropriate capital structure may assist nascent small and medium businesses to establish a financial buffer against the risks of newness (Wiklund, Baker & Shepherd, 2010: 427), financing decisions are crucial managerial decisions. It is therefore important to discuss the funding presences of entrepreneurs. The discussion of how entrepreneurs make financing decisions is expanded in the next sections.

2.2.2 Understanding the Demand for Capital-Empirical Evidence

The funding preferences of entrepreneurs and the demand for capital are important factors in the development of small businesses. Although inflation diminishes the equity base of business owners over time, small businesses depend on the personal equity of entrepreneurs, retained earnings and short-term debt as primary sources of funding (Lundmark, 2017: 70). This assertion is buttressed by Robb and Robinson (2014:24), who used a U.S sample of nascent SMEs to demonstrate the importance of entrepreneur equity and short-term bank funding. Söderblom and Samuelsson (2014:13), on the other hand, show that start-up businesses rely on bootstrapping, with a large majority not using any form of external capital.

Notably, apart from internal source of funding, bank funding is widely used as it is considered a low cost of funding and does not lead to loss of ownership (Lundmark, 2017: 75). Söderblom and Samuelsson (2014:14) indicate that banks have a growing interest in serving nascent small

and medium enterprises as they believe in a long-term relationship that may yield fruits in the future. In a sample of 311 firms in the Czech Republic, Pinkova and Kaminkova (2012: 257) show evidence that even though the equity ratio sees a gradual upsurge from the birth to the maturity stage, a high level of short-term liabilities is evident in all phases of the firm. This is presented in figure 2.3.

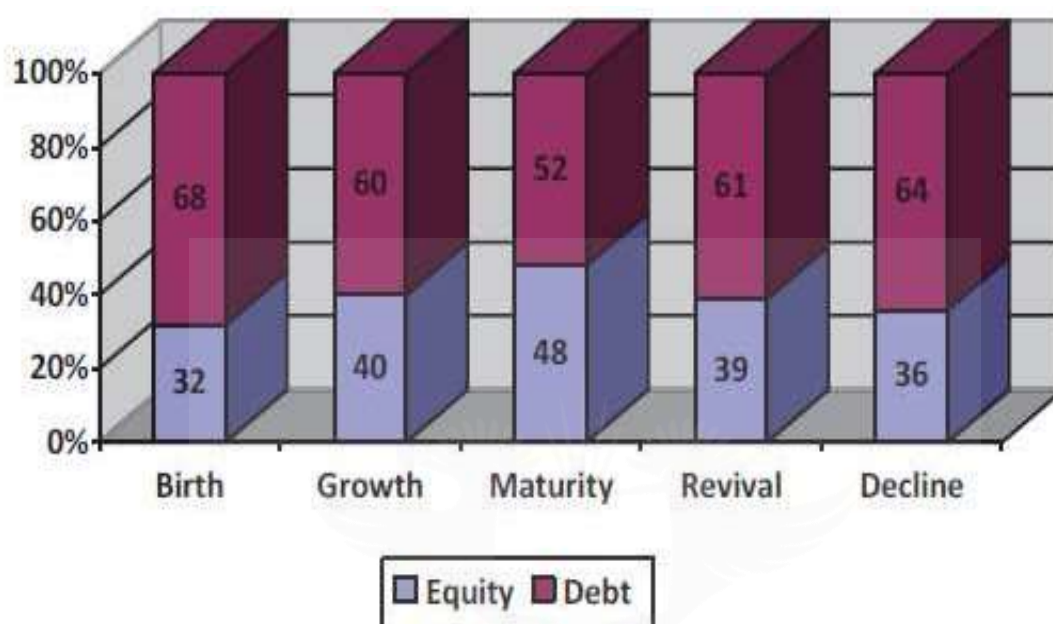


Figure 2. 3- Capital Structure According to Ownership and Control

Source: Pinkova & Kaminkova (2012:257).

In most cases, new small and medium businesses do not require a large amount of capital to get started. Lundmark (2017:73), citing Storey (1994), indicates that most nascent SMEs remain small as the overwhelming majority are not scalable enterprises and hence do not require huge capital. It is worthy of note that even in instances where small businesses grow, they still primarily rely on insider funding and short-term debt. Hence, the need for external equity capital is fairly minimal (Lundmark, 2017: 74). However, the use of debt is proved fundamental as La Rocca, Rocca and Cariola (2011:107) also show that in the start-up and growth stages, firms use leverage to maintain the business. In Ghana, small and medium enterprises prefer internal funding as external financing costs are high (Agyei, Sun, & Abrokwa, 2020:10). This supports the pecking order theory, which indicates that firms demand internal equity capital before debt and external equity. The pecking order theory seems to rule the narrative of capital structure decisions of Ghanaian SMEs (Abor, 2008: 27).

Firm Continuum and Sources of Funding

This section depicts a funding spectrum for SMEs at various sizes, ages, and levels of information accessibility. Figure 2.4 illustrates a firm continuum and funding sources, as depicted by Berger and Udell (1998:623). New small and medium businesses are on the left side of the continuum, implying that they rely on insider financing, trade credit, and business angels (Berger & Udell, 1998: 622). Ullah and Taylor (2007:189) investigate small business funding in the United Kingdom. They revealed that the primary source of capital for entrepreneurs is their own personal funds.

According to Mac an Bhaird (2010:27), internal equity financing is the most important source of financing for Irish private firms, as private firms increasingly rely on retained earnings. It becomes easier to obtain short-term debt financing as the company grows older. In addition to the firm's assets, the study found that the youngest businesses are more likely to use short and long-term debt, as well as personal assets as collateral. As the venture grows, they gain access to external funding. Eventually, they gain access to capital markets. However, this is just a descriptive concept, as the lifecycle model could differ in different contexts in different countries as financial systems are not homogeneous. As a result, some of the funding alternatives are not available for all kinds of businesses in all countries, and not all firms go through all the life cycle stages (Lundmark, 2017:96). This, nevertheless, lends support to the Pecking Order Theory for nascent SMEs.

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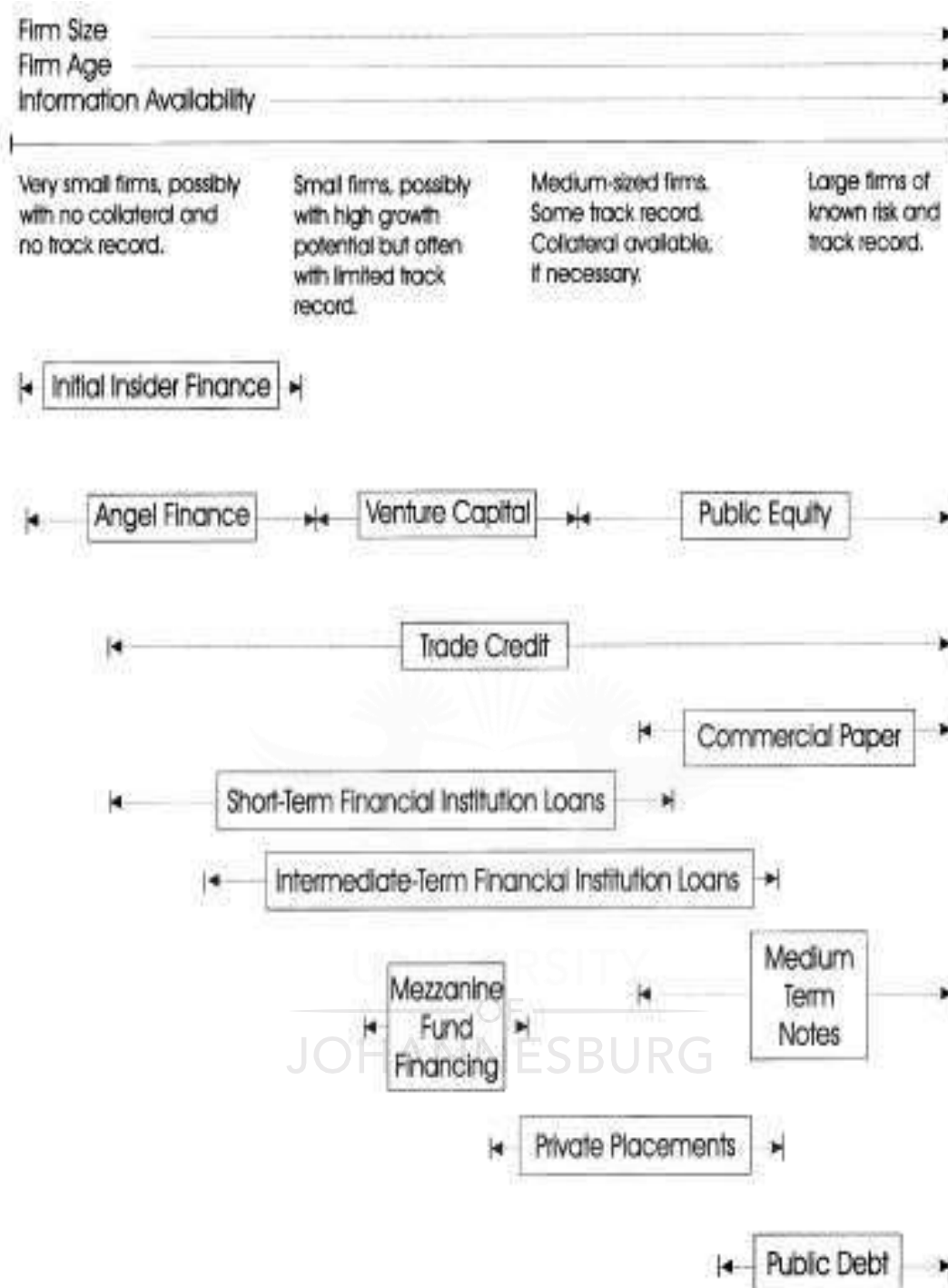


Figure 2. 4-Funding sources in different stages

Source: Berger & Udell (1998:623).

2.2.3 Understanding the Demand for Capital-Resource Based View

The resource-based view is a model which considers resources as crucial to firm performance and survival. It depicts the concept that organisations require several competitive resources and capabilities to transition to higher productivity (Peteraf, 2018: 1454). Thus, the resource-based

view explains the output of businesses through the lens of resources it controls. It explains competitive advantage and profitability differences among firms (Peteraf, 2018: 1455). By explaining heterogeneity in firm performance as a result of differences in resources in competing firms, it espouses the idea that firm performance is based on its underlying resources (Barney & Arikan, 2005:137).

According to Lundmark (2017:97), Penrose in 1959, was the first scholar to explain the essence of the resources which are needed to start a new business. In Penrose's (1959) view, the ability of the entrepreneur to leverage opportunities on his resource configurations and the growth of the firm is predicated on the effective use of organisational resources. It is when the resources of firms are effectively used that it gains a competitive advantage. As specified by Lundmark (2017:98), the firm must acquire and manage resources and capabilities to ensure a state of sustainable competitiveness. Physical, capital, human capital, and organizational capital resources are the four types of resources identified by Barney (1991:101).

Tangible assets such as machinery and raw materials are examples of physical capital resources. Staff experience and managerial skills are examples of human capital resources. Organisational capital resources comprise the formal framework of the business, its coordination processes and informal relations with stakeholders. For these resources to translate to competitive advantage, they have to be valuable (Godwin-Opara, 2016:15). According to Kozlenkova, Samaha & Palmatier (2014), resources are valuable if they help the venture to lower cost. As a result, small and medium businesses should opt for a funding type with a lower cost of capital (Kulkarni & Chirputkar, 2014:437).

Demanding capital that comes with the lowest cost is essential but not enough. Entrepreneurs must continuously redesign and organise their resource portfolio either through internal resources or through external resource acquisition (Lundmark, 2017:99). Added to this, since the enterprise does not have limitless capital, small business owners need to always evaluate their physical capital and sell off the least valued ones (Lundmark, 2017: 99). Even though the resource-based view has been broadly applied in many contexts, it has been extensively criticised as well.

According to Connor (2002), as cited by Lundmark (2017: 99), one major downside of the resource-based view is that it is mainly applicable to large firms. Moreover, it is theoretically vague, and the approach does not offer details on the methods of the venture that ensures competitive advantage (Eisenhardt & Martin, 2000:1106). Nonetheless, within the RBV, the

term dynamic capability view was created to resolve some of the shortcomings of the RBV, focusing on the establishment's capacity to reconfigure its resources in the light of the demands of a changing business environment to capture value (Lundmark, 2017: 100). Thus, the venture's dynamic capabilities, such as selecting an appropriate funding typology and redesigning its capital structure to meet changing needs, can help it achieve a cost-based advantage by lowering cost of capital while creating value. If nascent SMEs' dynamic capability can assist them in gaining a competitive edge, they will invariably be able to move to maturity rather than collapsing in their infancy.

As the resource-based view espouses the idea that the survivability of the enterprise is dependent on the entrepreneur's ability to leverage resources such as typology of funding in order for the firm to grow, it stands to reason that it is when the resources of firms are effectively used that it gains a sustainable competitive advantage. This view is supported by Lundmark (2017:98), who indicated that in order to maintain long-term competitiveness, the firm must acquire and manage resources and competencies. Several studies have employed the resource-based view (RBV). Ayepa et al. (2019), for example, used RBV as a theoretical framework to investigate the effects of innovativeness and firm resources on the growth of small firms in Ghana's Ga South Municipality. Using a sample of 188 registered small enterprises, the study discovered that both innovativeness and firm resources influenced the success of small businesses. Chumphong et al. (2020:129) investigate the impact of the Resource-Based View (RBV) on the performance of Thailand's small and medium-sized enterprises (SMEs). The review demonstrates that the notion of RBV helps to drive SME performance.

2.2.4 Understanding the Demand for Capital-Entrepreneurial Bricolage and Effectual Approaches

Very frequently, it is believed that entrepreneurs participate in rational objective-driven activities while operating entrepreneurial ventures. It is thus assumed that finance decisions that entrepreneurs make relate solely to the utility of economic reasoning. However, according to Mitchell et al. (2004:509), entrepreneurs do not always make rational decisions. It is thus imperative that how entrepreneurs make financing decisions are understood (Lundmark, 2017:107). In this regard, over the last few decades, contemporary approaches to entrepreneurship that drive concepts such as resourcefulness and lean start-ups have gained traction (Lundmark, 2017: 107).

In these relatively new approaches, business founders are shown to concentrate mostly on resources that they have under their control without regard to long term returns. Entrepreneurs concentrate on what they are willing to risk and fail to behave according to context-driven resource constraints (Fisher, 2012: 1020). Such entrepreneurial perspectives are drawn from the “Entrepreneurial Bricolage” (Baker & Nelson, 2005:354) and “Effectuation” (Sarasvathy, 2001:243) approaches. The entrepreneurial Bricolage approach posits that entrepreneurs use what is on hand and combine resources to make something out of nothing (Fisher, 2012: 1022). The process of Entrepreneurial Bricolage is as reflected in figure 2.5. This cycle summarises the choices that are open to entrepreneurs in harsh business environments such as developing economies. It shows how they escape challenges, seek capital or make do with available resources. An entrepreneur can leverage resources in inventive ways by utilizing what they already have. Extensive bricolage, on the other hand, can limit growth, whereas selective bricolage allows resource constraints to be overcome while also laying the groundwork for long-term growth (Fisher, 2012: 1027).

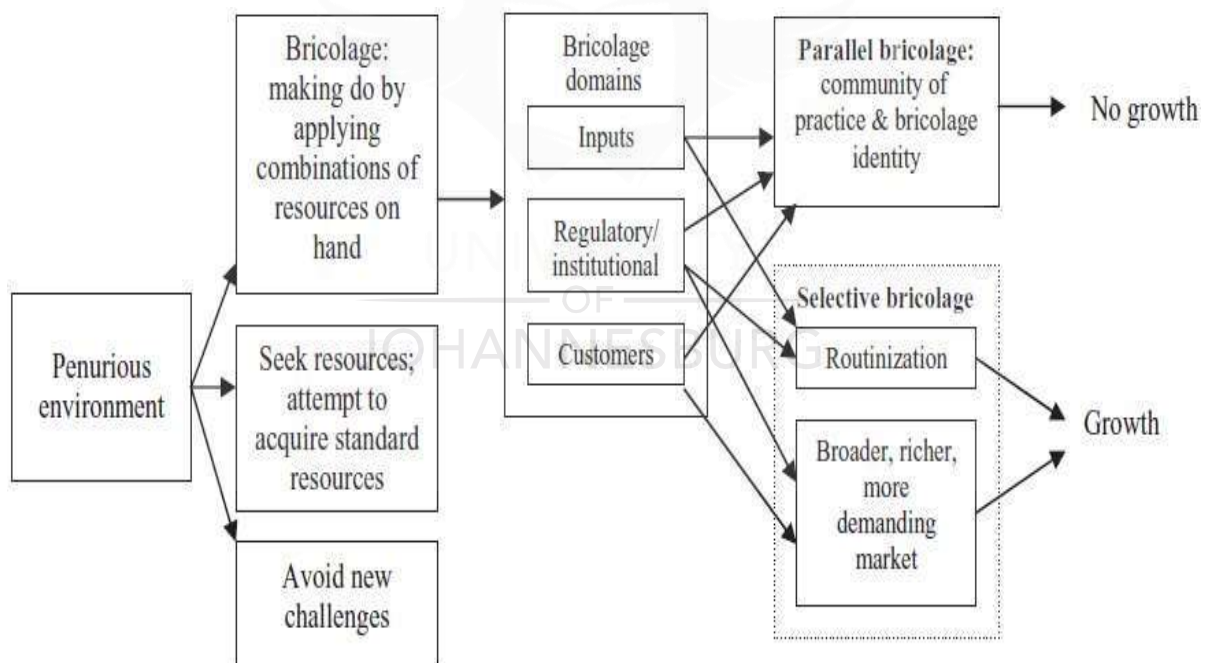


Figure 2. 5Bricolage Approach to Entrepreneurship

Source: Baker & Nelson (2005:354).

The Effectuation approach recognises the entrepreneur as an analytical individual who uses the affordable loss principle to settle on the cheapest alternative available (Fisher, 2012: 1022). Hence according to the Effectuation logic, most nascent ventures have minimal external

resource requirements and can manage the operations of the business without external capital (Lundmark, 2017:108). The method flow of a successful entrepreneurial strategy, according to the Effectuation approach, is described in figure 2.6. The entrepreneurial cycle starts with an analysis of the resources that is available. The entrepreneur asks himself a series of questions that allows him to analyse the means or resources available to determine an appropriate course of action. The business owner finds new ways and sets new goals by communicating with others and engaging stakeholders, allowing for a reassessment of the means and possible course of action (Fisher, 2012: 1026).

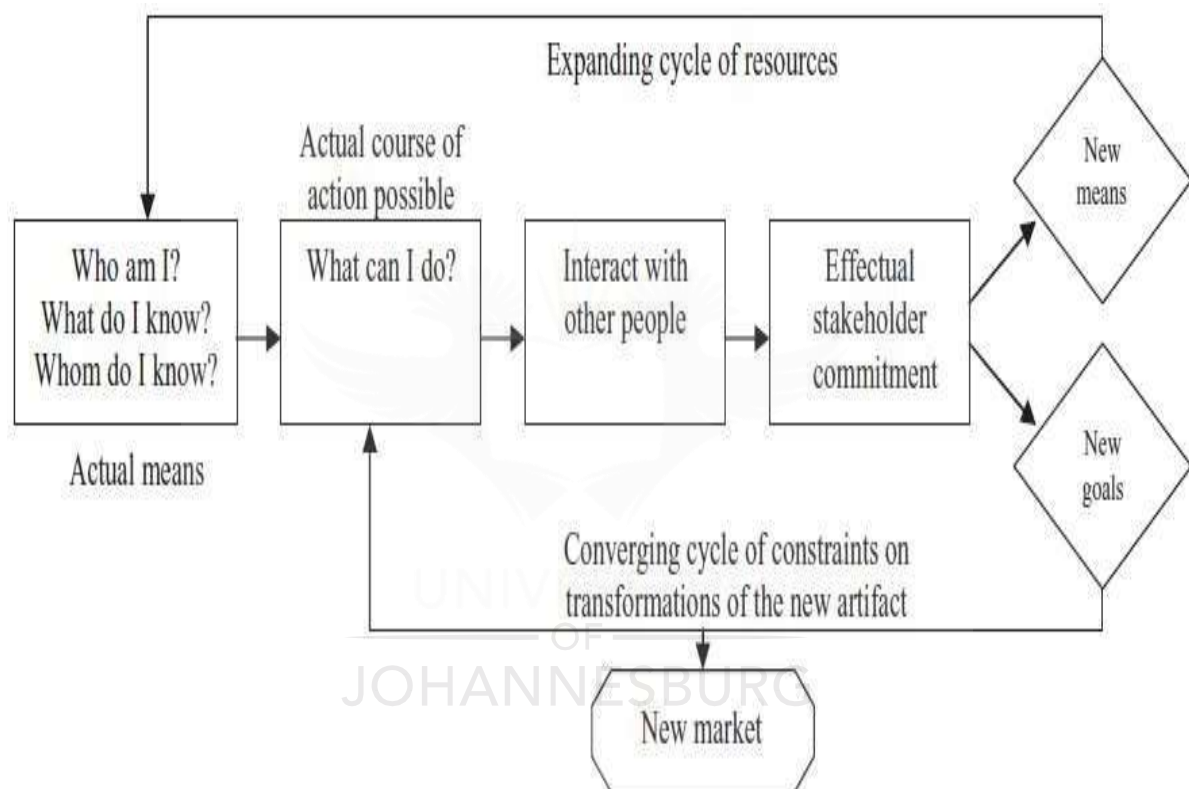


Figure 2. 6- Effectual Approach to Entrepreneurship

Source: Sarasvathy & Dew (2005:543).

According to the Effectuation and Bricolage approaches and the Resource-Based viewpoint, the primary source of market opportunities is the one under the venture's control. As a result, internal funding sources under the entrepreneur's control are important sources of capital that can ensure the venture's growth and survival. According to Lundmark (2017, 114), entrepreneurs can overcome resource constraints by utilizing low-cost solutions. The Effectuation and Bricolage approaches has been applauded and criticized by a number of studies. For example, according to Alsos et al. (2020:608), as conceptual and applied studies

have increased, the effectuation theory has become a highly influential account of new venture development in recent years. However, Arend et al. (2015:630) contend that it is underdeveloped as a new theory of entrepreneurship. They argue that effectuation emphasizes description over explanation, fails to build on earlier research, and lacks a clear definition of context.

2.3 SECURING EXTERNAL CAPITAL

This section evaluates the characteristics that determine whether or not small and medium enterprises can obtain external funding. The section also discusses the various funding mechanisms available to SMEs. SMEs are relatively opaque in character, lack adequate resources, including financial capital and are perceived by lenders to be riskier as they have unpredictable patterns of growth, profitability, and cash flow (Harvie, Narjoko, & Oum, 2013: 5). These increase default risk and insolvency. As a result, obtaining adequate capital for small and medium businesses is difficult. Businesses that can secure funding, on the other hand, have a better chance of growing and surviving (Fowowe, 2017: 13).

The ability to secure funding is helped by firm characteristics such as the presence of a quality team (Gregson, 2014:15), size and age (Beck & Cull, 2014:16), forms of business ownership and the firm's industry type (Kira & He, 2012: 113). External financing, according to Osano and Languitane (2016: 2), helps small and medium businesses get off the ground. Furthermore, without external financing, small and medium businesses may not be able to compete in the global market (Osano & Languitane, 2016: 2). As a result, securing capital is critical to the development and survival of small and medium businesses. The sections that follow list the characteristics that may make SMEs appealing to external funding providers.

2.3.1 Building a Quality Team

The ability of an entrepreneur to take a risk and show a commitment to pursue a business opportunity is a crucial factor in securing capital (Gregson, 2014: 15). Competent management that is comprised of a quality team is also essential. As indicated by Rutherford et al. (2018:911), nascent ventures are challenged by a lack of legitimacy, which makes it difficult to raise capital. The entrepreneur could start attracting normative legitimacy by building a quality team of diverse backgrounds that is devoid of managerial inadequacy (Gregson, 2014: 15). A complimentary combination of skills and experience indicate business intelligence to stakeholders, including financiers, and it is the base from which competitive advantage emerge (Gregson, 2014: 16).

Therefore, gaining legitimacy with suppliers of finance is required in the process of securing funding. Liability of newness, which is one form of uncertainty in entrepreneurship, is revealed in the inability of the business venture to rally resources, be it financial, human, or social capital (Ingram Bogusz, Teigland, & Vaast, 2019:318). It is vital for entrepreneurs to note the conception of stakeholders and to work on making them perceive the venture as legitimate, profitable, and solvent. It thus appears conceivable that setting up a quality team is a legitimacy-establishing activity that satisfies a criterion to attract funding (Gregson, 2014: 15).

As nascent small and medium enterprises are fraught with informational opacity, it is difficult for suppliers of finance to conduct risk modelling with the limited supply of information before deciding to supply or withhold funding. As Ma, Ansell and Andreeva (2016:1) explain, a means of overcoming this issue is by assessing the management capability of the enterprise. A good management team with competent capabilities is an essential contributor to the performance of the venture and its ability to attract funding (Ma et al., 2016:1).

2.3.2 Size and Age

Small and medium enterprises face more stringent funding restrictions because it is generally accepted that they are informationally opaque. Some may not even be capable of generating audited financial statements (Rahman, Belas, Kliestik, & Tyll, 2017:651). Small businesses with a long-standing relationship with financial institutions can mitigate the problem of information asymmetry, according to Berger and Udell (1998:616). Age is, therefore, a factor in lending situations as the relationship between lender and borrower is only deepened with time. Studies such as Fatoki and Assah (2011) point to the fact that SMEs that are more than five years stand a better chance of securing capital relative to those below five years. Beck and Cull (2014:16) back this up with their findings, which show that older businesses are more likely to get credit.

Access to capital is also influenced by size, according to studies by Cenni, Monferrà, Salotti, Sangiorgi, and Torluccio (2015), because large firms have more bargaining power and can negotiate for better and less restrictive loan covenants. Brancati (2015:449) also finds that due to information opacity, smaller businesses are more credit constrained than larger businesses. Firm size is positively related to access to finance, according to Rahman, Rahman, and Belas (2017: 266). Fowowe (2017) used a dataset of 10,888 firms from thirty African countries in their access to finance and firm performance study, and found, among other things, that younger and smaller firms suffer more when they are denied funding. As a result, age and size

matter in two ways: younger and smaller businesses face credit restrictions and suffer more when credit is denied.

2.3.3 Forms of Business Ownership

Ownership structure can be characterised as a means of controlling a venture and deciding its management and operations. The ownership structure may be divided into sole proprietorship, partnership, limited liability company and corporation (Obasan, Shobayo & Amaghionyeodiwe, 2016:13). The characteristics of business ownership and control mechanisms dictate to what extent funding is impeded by information opacity (Mertzanis, 2017:3198). If this argument is valid, then the form of business ownership aligns with the firm's ability to secure capital.

Hence studies such as Dietmar, Stahl and Woywode (1998), therefore, note that due to the public reach of audited financial data and improved accountability and governance mechanisms, limited liability companies, for example, are correlated with more robust development. Added to this, lenders consider incorporation as an indicator of fidelity and dedication to operational legislation (Mertzanis, 2017: 3199). These assertions have been proven to be essential in accessing finance as Coleman and Cohn (2010:88) concluded that there is a positive association between debt financing and the legal formation of the business.

Musamali and Tarus (2013:721) also found ownership structure to be a firm-specific factor that influences access to capital. According to the study, incorporated companies have inherent characteristics such as permanence, whereas unincorporated companies are more likely to dissolve in the event of the founder's death or for any other reason. Permanence is an essential element for suppliers of funds as it ensures the fulfilment of commitments.

2.3.4 Industry Type

The capital structure of small businesses shows significant differences across different industries (Degryse, de Goeij, & Kappert, 2012: 431). This is in line with the trade-off theory, which indicates that various industries have varying target capital structures. The sector to which the venture belongs has an impact on access to finance (Musamali, & Tarus, 2013: 721). This is because various industries enjoy dissimilar opportunities, profitability and risks. An example is the manufacturing industry that has relatively more access to funding due to the tangibility of assets that serve as collateral in debt financing situations (Musamali, & Tarus, 2013: 721).

While these characteristics are not exhaustive, they do indicate that access to funding is dependent on a number of factors. As a result, it implies that the ability to withstand the liability of newness may differ depending on the characteristics of the enterprise that enable it to attract external funding to maintain liquidity and solvency. The various sources of funding are listed in the sections that follow.

2.3.5 Sources of Capital for SMEs

Despite all the obstacles, there are numerous financing options available to small businesses. This section examines some of the financing options available to SMEs. As has been posited by Myers and Majiluf (1984:189) in the pecking order theory, entrepreneurs prefer to use their own resources, resources from family and friends, and only a few businesses use external financing. However, Robb and Robinson (2014:154) concluded that funding from debt dwarfs other forms of funding. They found that the average amount of debt from traditional banks was seven times greater than other types of debt, such as insider-financed debt, in their study on capital structure decisions of new firms. Formal credit channels supply almost 40% of the start-up capital of small and medium enterprises (Robb & Robinson, 2014: 154). In most instances, the entrepreneur uses his personal assets as collateral and hence holds a highly leveraged equity claim on the enterprise.

Lundmark (2017:123), on the other hand, suggest that in instances where businesses opt for external financing, the most common forms are credit cards and bank overdrafts. Nevertheless, a sizeable number of small businesses still use external funding for a number of reasons, such as for fixed assets, cash flow inadequacies or a long lead time from the start of business to sales. According to Lundmark (2017: 123), the most critical factor in making a financing decision is to acknowledge that different typology of funding has varying advantages and disadvantages. Sources of financing are generally debt-based and equity-based (Abor, 2017: 33). The next section discusses the various mechanisms of debt financing.

2.3.5.1 Debt Financing

Owners, insiders, and outsiders can all provide capital. Debt-financing refers to capital obtained through credit markets such as banks, credit markets, lines of credit, as well as venture capital and angel funding (Robb & Robinson, 2014:163). Debt could be issued formally through financial institutions or from family and friends. The overriding feature in a debt contract is that it is repaid over a while with interest (Lundmark, 2017: 124). As a result of the interest and principal repayment periods, debt can be classified as short-term or long-term, with short-term loans being repaid in less than a year.

Lenders do not have any equity interest in the enterprise as they are paid interest at periods in time, and the loan facility is most times backed by collateral. For businesses, the advantage of using debt funding is that it maintains the ownership structure of the firm. Moreover, considering that the interest outflows are typically deductible in the income tax return of the business, it is considered less costly relative to equity funding (Lundmark, 2017: 124). Despite that, as the debt escalates, an increased expenditure may offset the benefits as a result of the possibility of financial distress. Therefore, as Vismara (2015:163) explains, there is a downside of possible financial distress as the failure to repay the interest and principal could result in liquidation. Therefore, cashflow should be continuous for the firm to remain solvent.

In Roberts (2015:42), it is shown that debt plays the dual role of “cash-flow role” and “capacity-building role” in an enterprise. This is because an essential function of debt is to finance everyday operations such as the provision of working capital to pay salaries, procure raw materials, among other things. Yet businesses must construct, upgrade, and extend production capacities such as plant and machinery. This is when debt assumes a capacity-building role (Lundmark, 2017: 126).

Debt financing can be done in a variety of ways. According to Abor (2017: 38), certain debt contracts have principal payments deferred until maturity, with payments ballooning from low-interest payments to the full maturity value. Furthermore, interest rates on debt securities can be fixed or floating. The negotiated rate applies to a fixed-rate loan until it is issued, and the rate may be maintained throughout the loan's term. A floating-rate loan, on the other hand, has a lending rate that changes to market rate on a regular basis. The lending rate rises and the borrower would have to pay more in relation to interest as the market interest rate rises. Where general rates are lowered, the rate loan rate is increased, and the lower interest costs are the borrower benefits (Abor, 2017: 38). Some of the various debt mechanisms are as follows; Bank Finance, Asset Based Financing, Asset Based Lending, Factoring, Purchase Order Finance, Warehouse Receipts, Leasing, Trade Credit, Microfinance Credit, Alternative Debt and Crowdfunding

2.3.5.1.1 Bank Finance

The most common form of external funding for small and medium businesses is bank finance, which includes bank loans, overdrafts, and lines of credit (Cusmano & Koreen, 2015: 13). Regardless of the company's financial situation, such debt instruments represent an outright claim on the debtor, who will pay a prescribed interest. The ability to provide credit is largely determined by the company's overall solvability, with projected cash flow serving as the

primary means of repayment (Cusmano & Koreen, 2015: 13). Nonetheless, the mechanisms used to track a company's creditworthiness differ significantly. The overarching guiding principle is to keep information asymmetry between the borrower and the lending financial institution to a minimum.

There are two major types of lending identified in the existing literature. It is divided into two categories as stated by Berger and Udell (2006:2946): transaction lending and relationship lending. The extension of credit and determination of solvability in transaction lending is based on hard quantitative data. The quality of the borrower's detailed audited financial statement determines whether or not credit is extended. The rationale is to sift through the informational haze surrounding small and medium-sized business borrowing. According to OECD (2015), lending based on financial statements is mainly dependent on the financial condition of the borrower, and it requires detailed and accurate financial statements. Hence such a form of lending is the preserve of small and medium enterprises that keep adequate financial records and which are informationally transparent. This assertion is supported by DeYoung, Frame, Glennon and Nigro (2010:19). They show that credit is granted based on a strong financial position, as measured by financial ratios such as the current ratio, debt-to-equity ratio, and asset-return, among others. Small business credit scoring is another type of transactional lending that is based on an examination of the entrepreneur's and the company's records. This type of transactional lending is mostly extended to informatively opaque small and medium enterprises, according to Cusmano and Koreen (2015:75). To generate a loan score, the data of such SMEs is fed into a predictive model. Relationship lending, on the other hand, does not take cognisance of hard data but soft qualitative information (Berger & Udel, 2006: 616). In such instances, the information is collected directly by the officer granting the loan through a relationship built with the enterprise over time. The loan officer observes the performance of the business over time regarding transactions such as deposits. According to Stein (2002: 1893), this type of assessment could lead to agency problems as the loan officer becomes the proprietor of soft qualitative information. However, banks reduce such issues by putting in mechanisms for the transmission and sharing of soft data between corresponding loan officers and senior management (Liberti & Mian, 2009: 4058).

Bank debt has the crucial role of providing working capital and also building the capacity of SMEs in the form of production facilities, buildings and equipment (Lundmark, 2017: 126). Banks have different financial products that serve different roles for SMEs. Some of the

financial products are term loans, commercial mortgages, overdrafts, and credit card debts are explained by Lundmark (2017: 127) as follows:

Term loans: These are loans with a fixed repayment date or amortization timeline for specified projects or purposes.

Commercial mortgage: These are lengthy loans used when purchasing properties, mortgages and are also used as a note acknowledging charges on a property's deed or title certificate. As a result, unlike term loans, the lender already has exclusive rights to the asset in the event of a default in payment.

Overdraft: This is a short-term agreement to enable a customer to make a payment from an account irrespective of the insufficiency of funds to pay a bill.

Credit card: This is similar to bank overdraft in the sense that they both add a credit facility directly to an account. However, a credit card is a different financial product with its own loan cap.

Bank financing has many advantages and disadvantages as enumerated by Lundmark (2017: 130). Regarding bank debt, capital requirements are set and previously established. Bank credit enhances access to more credit while acting as a signal to other capital providers. Bank credit facilities do not enjoin entrepreneurs to give up ownership of the enterprise. The business owner maintains ownership of the undertaking, and in many jurisdictions, in conformity with the trade-off theory, corporate income tax is tax-deductible. Finally, bank financing is viewed as a relatively cheap source of external funding, with banks only needing interest on their credit and not anticipating value development to be split.

In spite of the many advantages of bank financing, there are also some disadvantages that entrepreneurs need to consider. For instance, it is well accepted that banks are strict in their practices of lending. The borrower is obligated to repay the facility with interest, and this can be a drain on cash flow and liquidity. Typically, banks give loans against the company or personal properties to serve as collateral. There may also be other restrictive covenants, and debt repayment may also vary in tandem with variations in interest rates. In the absence of the repayment of the loan, the company will be liquidated.

In sum, bank lending comes with a certain level of risk, information asymmetry and agency problems (Lundmark, 2017: 131). However, financial institutions could mitigate these challenges by engaging in certain strategies such as encouraging information transfer from the

enterprise through signalling, engaging in careful lending and co-financing with other banks (Smith, & Kiholm-Smith, 2003: 260).

2.3.5.1.2 Asset-Based Financing

Asset-based lending, debt factoring, purchase order funding, warehouse receipts, and leasing are all examples of asset-based financing. It differs from traditional debt financing in that asset-based funding is obtained based on the value of a company's assets rather than its credit status (Cusmano, & Koreen, 2015: 18). As a result, working capital loans are secured by accounts receivable, inventory, machinery, and immovables. Asset-based financing has the primary advantage of allowing businesses to access cash more quickly and flexibly than traditional bank loans, regardless of their financial statement status or potential cash flow position.

Additionally, asset-based financing allows businesses without normative legitimacy or a credit history to obtain working capital in a relatively short period of time. Furthermore, most asset-based finance providers do not require the entrepreneur to give up any personal guarantees or equity (Cusmano, & Koreen, 2015: 18). With all the advantages come the downside of the complexity and cost of the processes leading up to the granting of the facility. These include asset appraisal, up-front legal cost and auditing and limited credit amounts (OECD, 2015: 219). Asset-based financing generally provides equipment financing alternative, which is the fact that it requires adequate cash flow to make regular instalments (Lundmark, 2017: 131). Asset-based financing comes in several forms, such as the following:

2.3.5.1.3 Asset-based lending

A borrower company's current assets, such as inventory, cash, and accounts receivables, are used as collateral for a secured loan in asset-based lending. The bank assesses the company's current assets and establishes lending terms for them, including an interest rate and an advance rate for each type of existing asset. The advance rate specifies the asset's value as a percentage of the bank's balance sheet (Alan & Gaur, 2018: 637). As a result, a 50% inventory advance rate, for example, means that the bank can lend the company up to 50% of the cost of its inventory acquisition.

Both the financial institution and the borrower benefit from asset-based lending. By granting the lending institution a senior right to foreclose and liquidate the firm's assets in the event of default, the bank mitigates the risk of information asymmetry and attenuates the situation of incomplete contracting (Alan & Gaur, 2018:638). As a result, asset-based credit typically entails “less monitoring and covenants” as well as lower interest rates (Caouette, Altman,

Narayanan & Nimmo, 2011: 117). Alan and Gaur (2018:638) explain that these characteristics of asset-based lending are particularly beneficial to businesses that have a wide array of current assets, such as retailers.

Asset-based lending is dependent on inventory stocking decisions of the firm, and it allows the bank to control the leverage and inventory order quantity of the enterprise. As such Alan & Gaur (2018:638) find that in relation to alternative lending models whereby the bank optimises interest rate without imposing an assessed based credit limit, asset-based lending provides to the bank the advantage of diminishing demand uncertainty and adverse selection. This favourable situation translates to higher profitability for the bank and greater availability of funds for lending, which inures to the benefit of businesses that need funding. The sequence of events between a borrower and an asset-based lender is as conceptualized in figure 2.7.

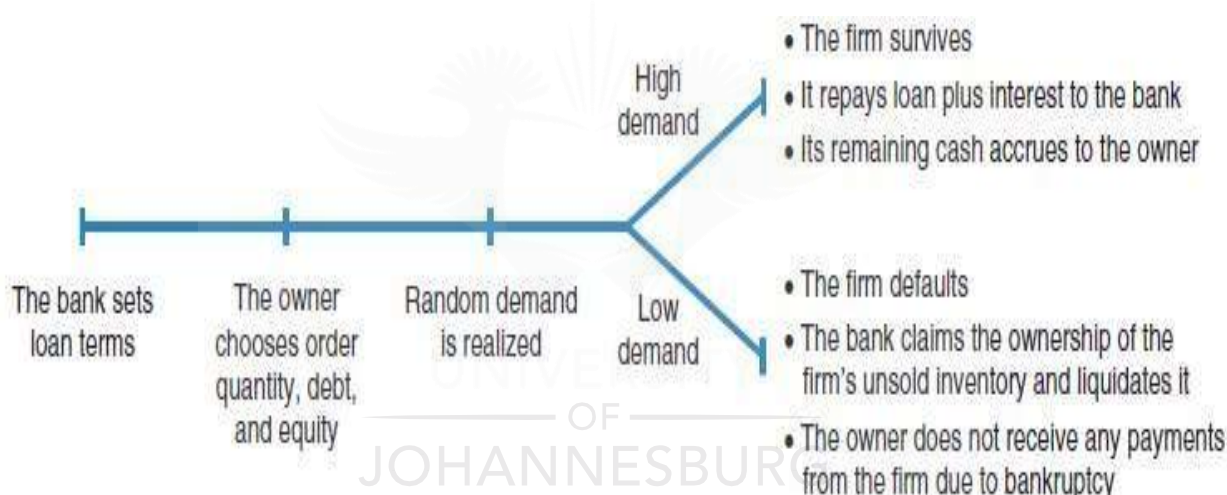


Figure 2. 7- Sequence of Events Played Between a Borrower and an Asset-Based Lender

Source: Alan & Gaur (2018:638).

On balance, asset-based lending meets the needs of SMEs that are in the growth stage and goes through a seasonal swell in inventory or receivables (OECD, 2015: 21).

2.3.5.1.4 Factoring

Factoring is a short-term funding process in which a seller receives cash from a specialist entity known as the factor in exchange for receivables arising from product sales or service delivery to customers. As a result, the factor purchases the right to receive invoices from its clients by charging the firm the face value of an invoice minus a discount. The customer then pays the

factor on the due date. The reserve account is the amount paid to the seller after the receivables are advanced to the factor, minus interest and service fees (Cusmano, & Koreen, 2015: 22).

According to Milenkovic-Kerkovic and Dencic-Mihajlov (2012: 432), interest rates range from 1.5 to 3.0 per cent above the base rate, with service fees ranging from 0.2 to 0.5 per cent of the volume of business. Factoring differs from traditional bank loans and other asset-based loans in that it does not create debt on the company's financial statement, according to the OECD (2015: 22). As a result, there is no obligation to repay any debt. Therefore, factoring does not jeopardize the firm's solvency.

Factoring is divided into two types, according to Abor (2017: 41): factoring without recourse and factoring with recourse. When debt is factored without recourse, the debt is completely sold. In such cases, the factor has no right of recourse against the company that sold the receivables if it defaults. Due to the higher risk taken by the factor in non-recourse factoring, the business receives a lower price for the debt. If the factor is unable to collect the debt, it has the right to sue the company that sold the debt in recourse factoring.

A crucial feature in factoring is that “the asymmetric information phenomenon between counterparties is resolved by focussing on the worth of the borrower's client” (OECD, 2015: 23). Factoring is seen as a costly choice. Enterprises, however, may choose factoring funding when they arrive at a certain degree of leverage, which can negatively impact the value of the enterprise (Bilgin & Dinc, 2019: 273). Hence, when small and medium enterprises use factoring, leverage remains constant, as depicted in figure 2.20. Besides, factoring helps in the efficient management of cash flow by organising the timing of cash-inflows and cash-outflows (Bilgin & Dinc, 2019: 276). The study of Bilgin and Dinc (2019) also show that the value of the firm can increase by reaching an optimal leverage point as posited by the trade-off theory.

The importance of factoring is reinforced by its ability to improve the value of the firm without a rise in the risk of insolvency and bankruptcy. According to Bilgin and Dinc (2019: 276), there is an optimal leverage ratio maintenance effect due to the use of factoring and its resulting increase in firm value. The profundity of the factoring market decides the magnitude of this maintenance effect. If the company makes use of all the market's factoring funding options, more bank loan funding and equity funding will have to be concurrently used to preserve the optimal capital structure (Bilgin & Dinc, 2019: 276).

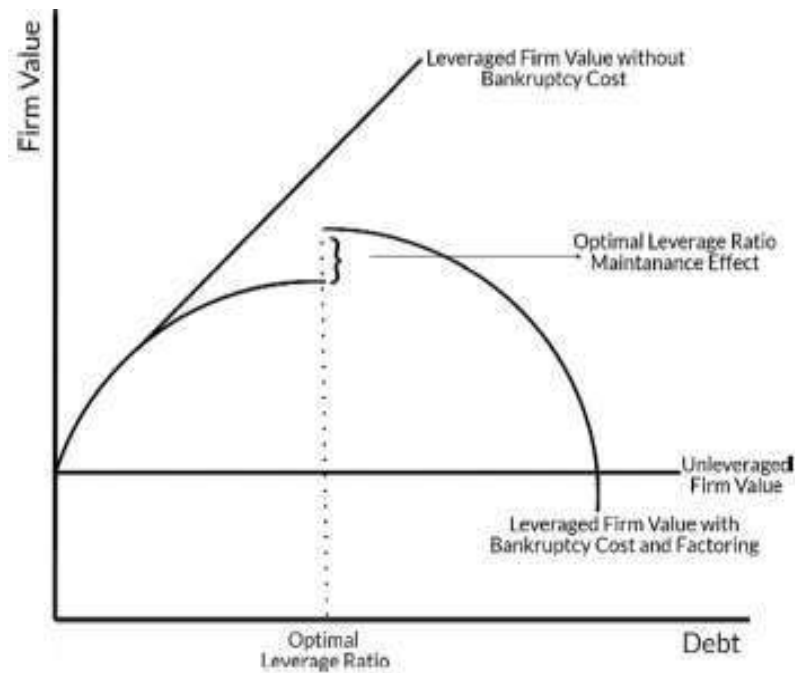


Figure 2. 8- Effects of Leverage and Factoring Financing on the Value of the Enterprise.

Source: Bilgin & Dinc (2019:276).

With factoring comes the worry that the factoring company is only interested in recovering the debt it has purchased and that it may use coercive methods to do so. This could damage the debt-sale company's reputation. Factoring frequently involves the involvement of a third party, and the consumer or debtor may be wary of dealing with a factor (Abor, 2017: 41). Firms that use factoring could start earning a questionable reputation with suppliers that they are in cash flow difficulties. This could result in more strict payment terms (Abor, 2017:41). Regarding treatment, factoring does not enjoy the same treatment as conventional debt financing as interest is not tax-deductible. In some jurisdictions, the value-added tax is even applied to the entire transaction (OECD, 2015: 25).

2.3.5.1.5 Purchase Order Finance

This short-term financing alternative provides businesses with capital to settle their suppliers, granted the existence of a purchase order from a credible creditworthy customer. According to Tanrisever, Van Bergen and Reindorp (2017: 305), companies typically with the greatest need are small and medium-sized businesses that function as importers, exporters or wholesalers and have high growth in revenue. Banks and other financial institutions specialise in purchase order finance. This is a financial “prior to dispatch” product that provides the company with the need for funding with the capital to be in the position to fulfil orders from customers.

The small business receives a confirmed purchase order from a customer through Purchase Order Finance. It calculates the cost of manufacturing and distribution of the commodity, including labour, raw materials and shipping. As depicted in figure 2.9, the order is sent to a finance company that determines whether or not the client is creditworthy and if the small business can manufacture and supply the product in tandem with the contract terms. Once the facility is approved, the financial institution advances payment of the total order value to the supplier. On the development of the product, it is shipped to the customer and payment is sent from the customer to the financial institution (OECD, 2015: 26).

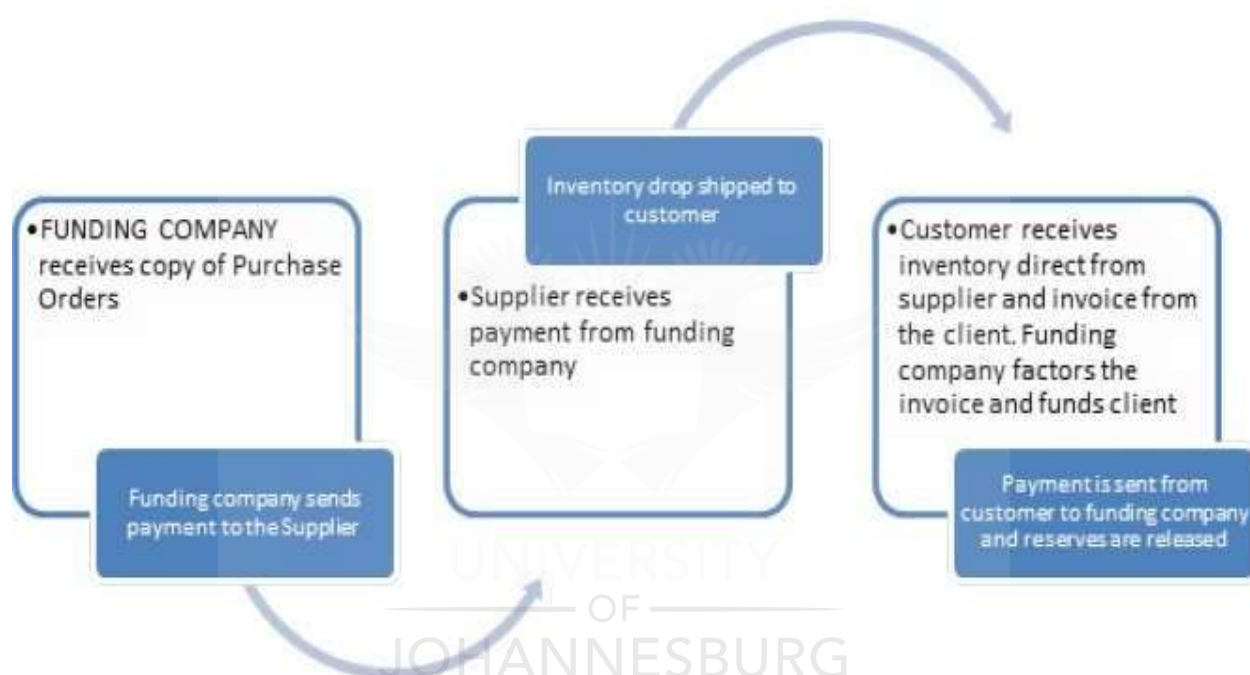


Figure 2. 9-Purchase Order Financing

Source: Wright (2014:4).

In supplying capital to applicants, purchase order finance has parallels with factoring. Still, it goes further up the value chain as funding is provided on the strength of a purchase order from a final buyer rather than an accepted invoice (Tanrisever et al. 2017: 307). For small and medium enterprises, a dedicated purchase order from a trusted corporate buyer could help establish legitimacy, thereby increasing the possibility of access to capital (Reindorp, Tanrisever, & Lange, (2018: 287). Thus, PO financing creates value for the SME by helping it meet customer demand. However, a dedication to purchasing an order puts the customer at risk, who must then take mitigating measures to balance the risk (Reindorp et al. 2018: 1287).

Purchase order finance enables the small business, as in the case of factoring, to pass on credit risk to the client. Since a purchase order finance involves higher cost and risk to the financier, the advance rate is typically low in relation to factoring (OECD, 2015: 26). The financier takes enormous risks, such as the possibility of the firm not meeting the order as well as customer payment deficits. Hence the purchase order finance process needs vigorous supervision. As a result, interest rates appear to be higher compared to other forms of asset-based financing. Financiers may also take inventories and bills of exchange as collateral bonds to reduce risk (OECD, 2015: 26).

2.3.5.1.6 Warehouse Receipts

A warehouse receipt is a note issued by a stock-keeping operator as proof of a depositor's deposit in the warehouse. "A note from a warehouse is a structured financial instrument backed by an acceptable legal tender and regulatory system that allows the depositor to grant a security interest in the stored asset to another party without requiring physical transfer, allowing the note from the warehouse to act as collateral for a loan" (Miranda, Mulangu, & Kemeze, 2019: 629).

For this reason, warehouse receipt financing in principle enables businesses to securely store their surplus to sell at a future date and be able to use the stored product as security to obtain a loan. The loan amount is usually a percentage of the stored product value, typically ranging from 50 per cent to 80 per cent. (OECD, 2015:27). The expenses associated with the borrower's processes include interest, taxes and storage charges. According to Höllinger, Rutten and Kiriakov (2009:4), warehouse receipts can be grouped under different arrangements.

It might be possible to set up private warehouses where production and warehousing are combined under one roof. In such cases, the same producer who acts as a borrower will issue a warehouse receipt to be used as collateral with the lender (Cusmano, & Koreen, 2015: 27). Another arrangement is for a public warehouse to store goods from third parties for a set price and issue receipts as proof of deposit. Finally, with field warehouses, a collateral or credit service company leases the storage facility for a nominal fee and takes possession of the goods to be used as collateral. Hence the collateral management company assumes responsibility for controlling the commodities to be used as security (OECD, 2015: 27).

Many development practitioners such as the International Finance Corporation (2015: 1) have advocated warehouse financing as a panacea to rudimentary marketing challenges faced by impoverished agric producers in developing markets such as Ghana. The main point is that

such small businesses are unnecessarily forced to sell their surplus at harvest, lacking access to adequate capital and secure storage facilities when prices are usually at their lowermost. Warehouse receipt financing helps mostly agric producing small and medium enterprises such as producers of grains, sugar, and sunflower seeds to securely store their surplus for later sale when prices are higher and use their stored commodities as debt collateral (Miranda et al., 2019: 630).

Warehouse financing, according to the OECD (2015: 27), is ideal for manufacturers and commodity dealers with no credit history or fixed asset collateral. The use of stored commodities as collateral is a viable option for expanding agricultural loans, and it is a valuable complement to the traditional use of real estate as collateral. Höllinger et al. (2009: 13) argue that warehouse financing addresses commodity financing's collateral and liquidity constraints because warehouse receipts are a possessory pledge, which is preferable to pledging landed assets during the borrower's tenure.

Regardless, warehouse receipt funding has largely failed to deliver the benefits touted by its proponents. Most smallholder businesses in Sub-Saharan Africa do not have access to warehouse receipts (William & Kaserwa, 2015: 42). Besides, warehouse financing turns the company to act as a speculator, potentially benefiting from price increments but also subject to the risk of a slump in commodity prices. In practical terms, funding for warehouse receipts entails high transaction costs and the dynamic transfer of risk that weaken its importance to the smallholder (Miranda et al. 2019: 631).

The Ghana Grains Council (GCC) was established in 2008 by the US Agency for International Development, the Ghana government, and a group of producer groups in the country. The council encourages small farmers to participate in open markets by establishing a regulated warehouse receipt system (Miranda et al., 2019: 631). The Ghana Grains Council has accredited twelve commercial warehouses in the country to issue warehouse receipts as of January 2019 (GCC, 2017:1).

2.3.5.1.7 Leasing

Leasing, like other types of asset-based financing, is based on the appraisal of an underlying asset and the company's ability to generate sufficient cash flow from business activities to meet standard payments, rather than the company's overall creditworthiness as determined by its credit history and fixed assets (OECD, 2015:29). It is an agreement whereby a leasing company (lessor) makes its assets available for use by an entity called the lessee in return for payment

over a specified period (Lundmark, 2017: 128). Two forms of leasing are available: Financial leasing and operating leasing. Under financial leasing, the financing firm owns the asset throughout, and the arrangement covers a defined duration, either the asset's entire economic existence or a term appropriate to the lender.

Operating leasing lasts for the asset's entire economic life, and the lessee is not responsible for the asset's maximum value funding. The lessor is responsible for the asset's residual value at the end of the lease. Leasing is most commonly used by businesses that upgrade or repair equipment on a regular basis and where the asset is likely to have a resale value (Lundmark, 2017:128). In comparison to traditional bank financing, a restricted cash down payment is expected in a lease agreement. As a result, leasing will fund a higher percentage of the equipment's capital expense, allowing the company to keep its cash or current bank credit to meet working capital requirements.

However, because the business does not create equity in capital assets, the average cost of acquiring it over the asset's economic life may be higher than when buying it directly (OECD, 2015: 29). Another significant distinction from traditional debt financing is the impact of the leasing contract on the company's balance sheet. A finance lease is typically added to a company's leverage because the company can decompose the lease payment into interest and principal repayment, expense the interest paid on the lease each year, and depreciate the asset's cost over the asset's life cycle (Gallardo, 1997:6).

The operational lease, on the other hand, is included in the company's expenses. In this regard, compared to a bank-financed acquisition of properties, the main advantage of lease financing is a slightly lower discounted present value of cash disbursement throughout the contract. The lessee can deduct the net periodic rental payments resulting from interest-related borrowing expenses and charges from his or her income tax liability (Gallard, 1997:6). Leasing is a financing option for firms going through cash-constrained challenges as it can respond to capital investment needs, especially for nascent businesses and eventually generate cash flow (Cusmano, & Koreen, 2015: 30). *2.3.5.1.8 Trade Credit*

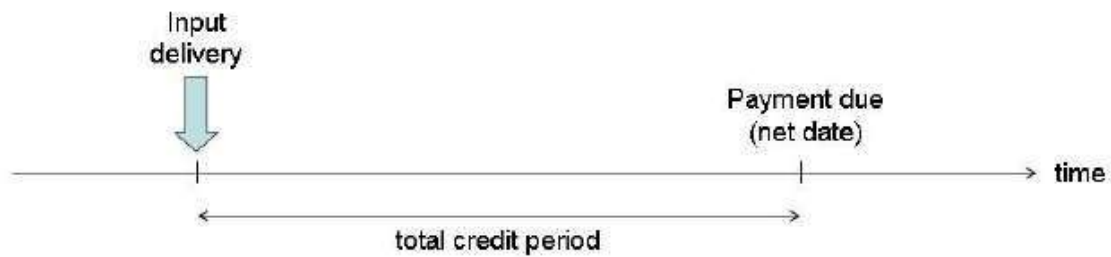
In the initial stage of the life of SMEs, finding a bank loan is difficult due to the poor creditworthiness of nascent SMEs and the restrictive lending policies of banks (Białek-Jaworska & Nehrebecka, 2016: 2). As such, the use of trade credit, which comes with less relatively restrictive policies, is widespread. A vital alternative to bank financing is trade credit (Wehinger, 2014:9). In every developed and emerging economy, it is the second most

important source of external funding for small and medium-sized businesses (Carbo-Valverdes, Rodriguez-Fernandez & Udell, 2016: 115). McGuinness, Hogan and Powell (2018: 85) show that for firms that increase their use of trade credit by one standard deviation, the possibility of financial distress decrease by 21 per cent accordingly. In effect, the likelihood of financial distress is substantially reduced for businesses that use more trade credit.

Despite the fact that trade credit is an important source of funding for small and medium businesses and helps them grow, the inherent payment delays put the supplier at risk (Amoako, Akwei & Damoah, 2020: 33). As a means of funding, trade credit comes in two forms, viz supplier credit and prepaid or advanced payment. Supplier credit is trade credit obtained from suppliers upstream. It is provided when companies receive upstream input from suppliers and payment is postponed until a subsequent date (Carvalho, & Schiozer, 2015:209). Prepaid or advanced payment is consumer credit received from downstream customers who make payment before product delivery. Advanced payment is also defined in the extant literature as reverse trade credit as its customers or clients that advance credit to suppliers (Mateut, 2014:304).

According to Klapper, Laeven and Rajan (2012), as cited by Dary (2018: 142), upstream suppliers assume a bigger part of the risk when it comes to advanced payments. Generally, trade credit is a short-term lending deal with mostly thirty-day credit cycles recorded widely around the globe. In terms of the structure of trade credit contracts, there are two basic types as differentiated by Cuñat and Garcia-Appendini (2012: 538). As shown in figure 2.10, trade credit may or may not come with a cash discount. Panel A is a trade credit arrangement without a discount, whereas Panel B is an arrangement with a discount.

Panel A: Net terms



Panel B: Two-term trade credit

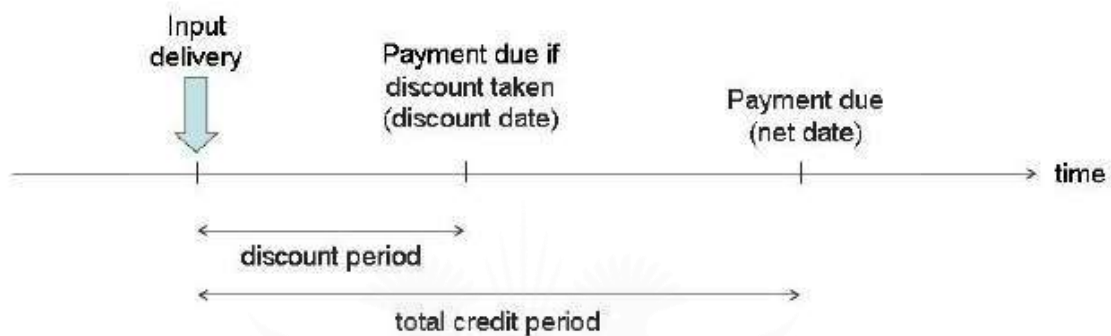


Figure 2. 10-Structure of Trade Credits

Source: Cuñat & Garcia-Appendini (2012:538).

Although it is a non-traditional source of credit, trade credit is not available to small and medium enterprises outside a trading relationship (Dary, 2018: 142). A standard trade credit arrangement would include descriptions of the transacting parties, the products concerned and the fiscal value, discounts, time limit for payment, interest, if any and late payment fees if applicable (Dary, 2018: 145). The interest in trade credit remains a conundrum. According to Ellingsen, Jacobson, & von Schedvin, (2016:1), the notion of trade credit as being expensive in relation to traditional bank loans is mostly based on implied interest, measured on the basis of the discount rate provided under two-part trade terms. Even so, empirical observation indicates that trade credit is substantially cheaper compared to bank credit (Ellingsen et al. 2016:2). Overall, charging interest on trade credit may be unreasonable as it involves a return for payment transaction process (Diary, 2018: 145).

In trade credit, as with other financial transactions, credit is advanced on account of the worthiness of the business concerned and the administrative milieu within which the trade credit contracts are concluded. The administrative environment conveys information about contract compliance and risk management mechanisms. Acquiescence to contract agreements

and the efficacy of enforcement mechanisms in such transactions is crucial (Dary, 2018: 145). According to Amoako et al. (2020:2), firms rely on informational compliance mechanisms such as goodwill and trust to reduce risk.

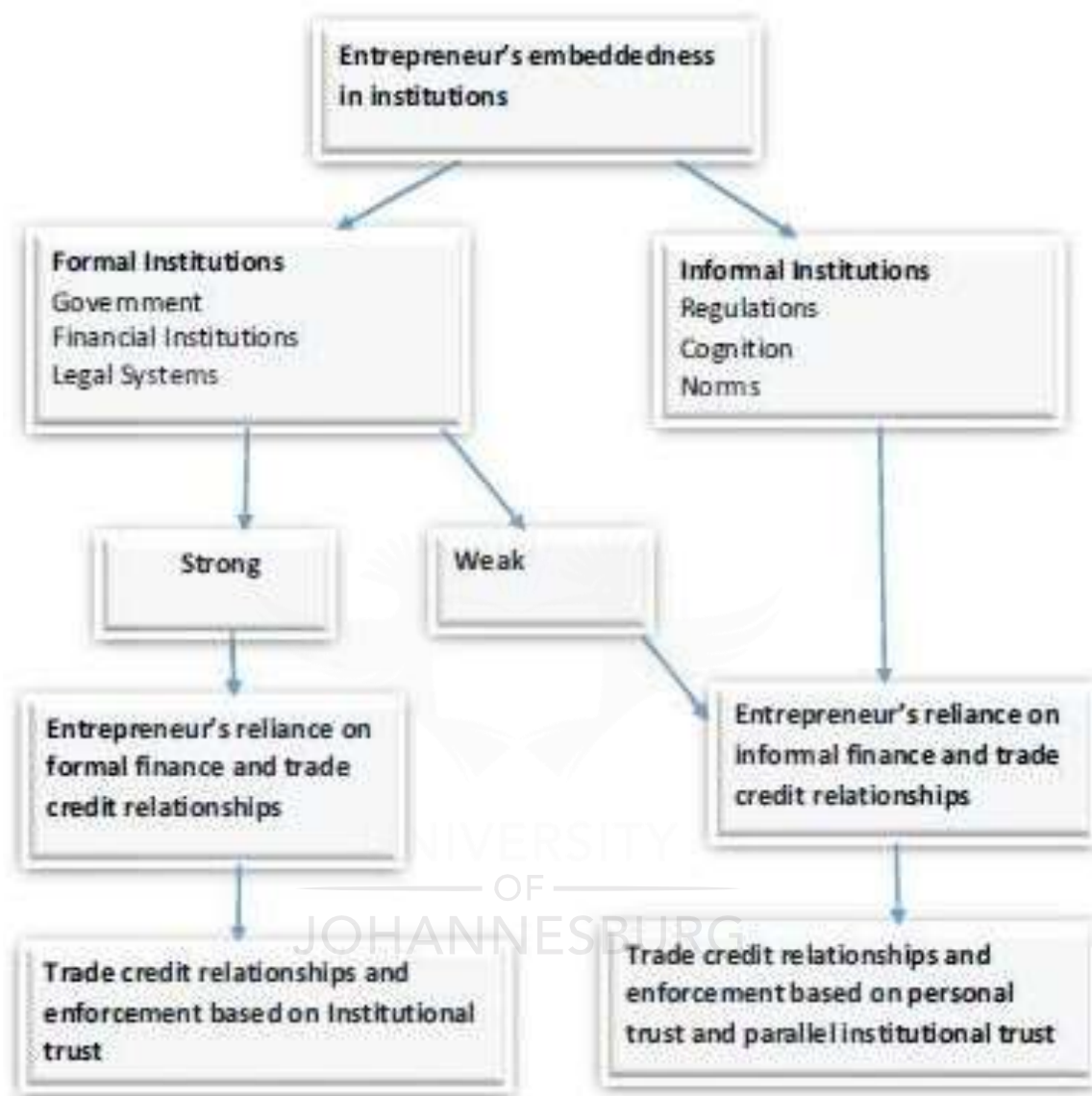


Figure 2. 11-Trade Credit Compliance Enforcement Mechanism

Source: Amoako et al. (2020:2).

In such situations, firms know the importance of reputational damage and refusal of future credit-based transactions. To enter and execute trade credit agreements, entrepreneurs rely on a customized network and relationships fortified by a variety of less structured types of confidence-building mechanisms (Amoako et al., 2020:2). This is more common in developing nations. Nonetheless, Amoako et al. (2020:2) state that in developed economies with formal institutions, businesses rely primarily on formal means to extend and enforce trade credit and

manage inherent risks. Figure 2.11 depicts the trust-building framework in trade credit relationships, which includes both formal and informal paradigms. Trade credit has the advantage of being a financing mechanism conducive to the informal financing of businesses. This short-term financing procedure considerably accelerates the rate of growth of small and medium enterprises (Huang, Ying, Yang, & Hassan, 2019: 1050).

2.3.5.1.9 Credit from Microfinance Institutions

Microfinance is an important source of capital for small and medium businesses. It usually entails providing financial services to low-income individuals and small businesses who have limited or no access to traditional financial institutions. Microfinance institutions offer services such as microcredit, micro savings, microinsurance, and money transfer. Microfinance enables low-income individuals and small businesses to obtain financing in order to grow their businesses, accumulate assets, and mitigate risk. Because these financial services typically involve small sums of money, the term microfinance is critical in distinguishing microfinance institutions from traditional banking services (Abor, 2017: 39).

Small business ventures in developing countries experience a financing context that is significantly different from SMEs in developed economies. Often the financial environment is rudimentary and aggravated by analphabetic and poor infrastructural development. Because of the financial market imperfections, the formal banking sector could be working, and the venture capital market may be non-existent (Lundmark, 2017: 139). Thus, nascent small and medium enterprises in such environments are disadvantaged in terms of accessing capital, be it debt or external equity. Microfinance is essentially a requisite financial tool in developing economies to facilitate the acquisition of external capital by small and medium enterprises (Lundmark, 2017: 139).

However, Hoque, Hoque, Chishty and Halloway (2011:414) prefer for microfinance to be viewed as an alternative source of business funding instead of seen mainly as a poverty alleviator. In this respect, microfinance becomes a credible alternative to conventional banks as a source of short-term funding. According to Rahman (1999), as cited by Lundmark (2017: 141), the distinguishing attributes of microfinance are as enumerated below:

- The use of peer loans characterises microfinance without collateral conditions and significant personal properties.
- Microfinance allows a community of SMEs to have access to financial services under the premise that social capital would encourage a complete and timely repayment

since the group is liable as a unified borrower. As such, if one of the group borrowers is unable to repay, the rest of the cluster would be responsible for the resulting costs.

- Credit assessment depends not on cash-flow valuation methods but on the character of applicants. Usually, borrowers get visits from their lenders on a regular basis rather than going to a branch or even using a cash machine. In other words, microfinance is a relationship-based financing approach. Accordingly, this labour-intensive approach is highly expensive, and therefore, microfinance loans come with high interest and default rates are high as there is no commutable collateral.

Overall, social relationship plays a major part in microfinance transactions as it increases the possibility of loan repayment and permits information asymmetry to be mitigated (Lundmark, 2017:141). Hence microfinance has become less risky and closely associated with the financial system (Brière & Szafarz, 2015: 416).

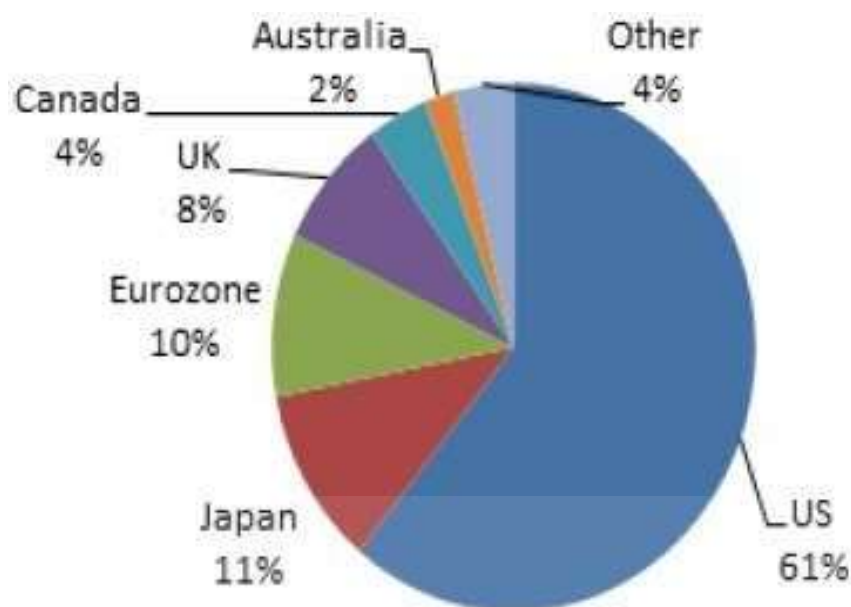
2.3.5.1.10 Alternative Debt

An alternative type of debt varies from conventional loans in that capital markets provide funding for SMEs other than financial institutions. The small and medium business does not have immediate access to capital markets when using alternative debt. Instead, it receives bank loans, the extension of which is funded by financial institutions' capital market operations. Corporate bonds and indirect instruments such as securitized debt and covered bonds are examples of alternative debt (OECD, 2015: 42).

Corporate Bonds: Corporate bonds are debt bonds issued by companies through which they undertake to pay interest independent of the performance of the business and return the principal on maturity (SEC, 2013:24). It could be difficult for small businesses in Africa to issue bonds. According to Abor (2017: 42), there is a high cost to issue a bond. Moreover, SME's need a good case history, which most small businesses do not have. Particularly in Africa, bond markets have been underdeveloped and may not be an immediate funding outlet for small and medium enterprises on the continent (Abor, 2017: 42).

Non-financial bonds, on the other hand, accounted for 12 per cent of the debt securities market in 2012, according to the Bank for International Settlements (BIS). Government bonds (49 per cent) and corporate financial bonds (12 per cent). (39 per cent). According to figure 2.12, the United States accounted for 61 per cent of international bond issuance in 2012, followed by

Japan (11 per cent), and the Eurozone (which accounted for only 10 per cent of the global



market).

Figure 2. 12- “Global Outstanding Corporate Bonds by Issuers’ Country of Residence as of June 2012”

Source: BIS (2012:24).

The corporate bond market in the United States is the most developed and liquid in the world (OECD, 2015: 46). Bonds can be grouped through several characteristics, including maturity, type of interest, credit quality, priority claim, and collateralisation, as shown in table 2.1.

Table 2. 1-Corporate Bonds by Characteristics

Bond characteristics	Typologies
Maturity	Short-term (< 3 years) Medium-term (4-10 years) Long-term (>10 years)
Coupon rate	Fixed rate Floating rate Zero-coupon
Credit quality	Investment grade Non-investment grade (high-yield or speculative)
Priority claim	Senior debt Subordinated debt
Collateral	Secured debt Unsecured debt (debenture)

Source: OECD (2015:42)

Cusmano and Koreen (2015: 42) explain how bonds are classified as follows: Bonds can be classified as short-term (less than three years), medium-term (four to ten years), or long-term (more than ten years) (more than ten years). The longer the duration, the greater the risk to bondholders, and thus the higher the interest rate. Coupon payments are interest payments made on a floating rate based on a bond's index or another benchmark, such as government bonds. It could also be fixed for the duration of the bond.

Bonds known as zero-coupon bonds do not pay interest and instead make a single payment at maturity, which includes a premium for the purchase price. Credit rating agencies help determine the bond's credit quality. As a result, investment-grade and non-investment-grade bonds can be distinguished. A bond can be secured on real assets by pledging real collateral as security, or it can be unsecured and referred to as a debenture. When an issuer defaults on a debenture, the investor only has a general claim on the company's assets and cash flow.

Debt Securitisation and Covered Bonds: Debt securitisation is a refinancing tool used primarily in the United States for mortgages and, in some cases, corporate lending to refinance banks and manage portfolio risk. Diverse types of contractual debt are pooled and sold to investors as a result of securitization (OECD, 2015:49). In the case of SME loan securitisation, the originator extends loans to its clients, bundles them into a portfolio, and sells it to capital market participants by issuing bonds backed by the loan portfolio through a special purpose vehicle (Kraemer-Eis, Schaber & Tappi, 2010). Covered bonds are debt securities backed up by mortgage or loan cash flow, similar to securitized loans (Packer, Stever & Upper, 2007). Covered bonds assets remain on the borrower's balance sheet (OECD, 2015: 49), so they can't help the issuer increase its capital ratio.

Commercial Paper: Commercial paper applies to a short-term debt instrument produced by upstanding firms with high solvability to raise short term funding (Abor, 2017: 42). The rate of interest on commercial paper most often is lower than that on a bank loan. Usually, it has an average maturity of around 45 days for up to 270 days. Commercial paper is usually rolled over at maturity owing to its short-termism. However, it is mostly used exclusively by well large and well-established businesses (Kahl, Shivdasani, & Wang, 2015: 215). Considering that most SMEs in Africa are small and not well established, it may be difficult for them to use commercial paper as a mode of funding (Abor, 2017: 42).

2.3.5.1.11 Crowdfunding

Crowdfunding refers to the method of raising relatively small amounts of capital from many investors (Everett, 2019: 1). This technique for raising external financing has a broad audience of specialized investors such as financial institutions, business angels and venture capitalists (OECD, 2015:53). According to Everett (2019:1), crowdfunding, even though a rapidly evolving concept exists in four primary forms. These are:

1. Credit-based crowdfunding consisting of loans to be repaid with interest
2. Equity-based crowdfunding in which the investors earn equity shares
3. Reward-based crowdfunding is which investors receive a real cash incentive and also an early version of the product or service being funded.
4. Donation-based crowdfunding in which supporters donate funds on the grounds that they believe in the cause.

Crowdfunding is usually carried out across the social network, the internet in particular, with the business founding outlining the business plans and goals, in some cases and seeking funding in clear terms. The key differentiator of crowdfunding in comparison to other typologies of financing is the fact that it does not require a financial intermediary such as a bank to obtain funding (OECD, 2015: 54). Hence businesses can directly source funding from savings of a large and diverse audience.

Borrowers in credit-based crowdfunding typically receive the interest and principal at the end of the loan period. “There are also crowd-loan forms based on the concept of revenue-sharing, in which borrowers are paid a lump sum that includes a negotiated share of the profits in the event of the debtor's good financial performance, rather than interest at the end of the loan period” (OECD, 2015:54). According to Chen and Han (2012:2), no collateral is required, although, in a few instances, loans are secured. The online platform has its mechanisms of loan or credit appraisal and performs liquidity and solvency check on borrowers. Typically, the peer-to-peer platforms make profits based on commissions which are different from how traditional financial intermediaries earn profits (Chen & Han, 2012:2).

In equity or investment crowdfunding, a company offers a specific share of its equity in exchange for a specific amount of capital. The valuation of the company, according to Collins and Pierrakis (2012:4), is a critical step in this process because it determines the amount of equity to be provided in exchange for the required capital. In most cases, the business owner performs the valuation himself, though the platform may allow for some upward variation in

the amount of equity offered. There is a funding threshold and a time period within which the target capital must be reached in equity platforms. Thus, a privately held business sells shares to the public through an online website. Investors are given a stake in the company and can gain the right to vote (OECD, 2015:54). As Collins and Pierrakis (2012:5) underline, crowdfunding has mostly been related to non-profit organisations where non-monetary benefits serve as a motivator for donors or investors. However, over the years, the platform has been extended to cover a broad range of firms in varying industries.

In this regard, Cusmano and Koreen (2015:72) state that that crowdfunding is a viable alternative for nascent businesses that lack collateral or credit history. On the contrary, crowdfunding may not be suitable for companies that deal in complex intangibles or high-tech innovations as this requires specific knowledge from investors (Collins & Pierrakis, 2012:6). According to the OECD (2015:59), globally, donation and reward-based crowdfunding are the most common, accounting for \$1.4 billion in 2013 and a rise of 85 per cent yearly. Loan based lending is the second largest, although it shows a higher rate of growth. Crowdfunding based on equity still represents a limited market share rising at a relatively moderate pace, as demonstrated in table 2.2.

Table 2. 2-Crowd Funding Categories, Amounts and Growth Rates

Crowdfunding Category	Amount (USD million)	Annual Growth %
Donation and Reward Based Crowdfunding	1,400	85%
Lending Based Crowdfunding	1,200	111%
Equity Based Crowdfunding	116	30%

Source: OECD (2015:59).

The following section goes over equity financing, which is the primary alternative to debt financing.

2.3.5.2 Equity Financing

This section covers the subject of equity financing. There is no loan to repay with equity financing. However, when external capital is used, the original owners' voting control may be lost. The amount of capital paid by a company's shareholders to fund its operations is referred to as equity. It also includes earnings that the company keeps and invests back into the business

(Abor, 2017:32). Shareholders own the retained earnings, which are added to the capital they have paid to the company in exchange for shares (Lundmark, 2015:143).

Equity capital providers focus on the positive aspects of possibilities, such as the income that the company will generate and earn their returns in the form of capital gains on the share valuation at the time of exit. Even so, if the business fails, the investors will lose their money (Lundmark, 2015: 143). In a nutshell, equity investors exchange money for a piece of the company's stock (Drover, Busenitz, Matusik, Townsend, Anglin & Dushnitsky, 2017: 1824). Personal savings/bootstrapping, retained earnings, business angels, venture capitalist funding, and private and public equity placements are all sources of equity capital for entrepreneurs (Abor, 2017:33). The sections that follow explain the various types of equity financing.

2.3.5.2.1 Bootstrapping

Bootstrapping may be described as a highly innovative way of obtaining capital without borrowing money or increasing conventional sources of equity finance (Zwane & Nyide, 2016). According to Schofield (2015), bootstrapping allows small business owners to generate new capital or expand existing ones without relying on leverage, a venture capitalist, or any other external source of capital. Bootstrapping is the process of starting a business with only financial resources owned by the business owners or family members of the entrepreneur (Rutherford, Pollack, Mazzei, & Sanchez-Ruiz, 2017: 659).

According to Abor (2017: 33), the first and easiest way for business founders to fund a company is by depending on owner financing methods, including personal savings. External financiers would typically want to see how much of the company's own "skin" has been invested in the business. Due to the high degree of information opacity and the fact that mostly nascent small and medium enterprises do not have a track record in terms of activity and finances, external funding is difficult to obtain at the early stages. Often small and medium enterprises may not have enough capital to apply for a loan (Abor, 2017: 330). As stated by Rutherford (2015:62), about 75 per cent of nascent firms make no use of external debt or equity but instead depend on owner financing and other bootstrapping methods.

Tomory (2010:46) identified the general methods that can be used to bootstrap nascent small and medium businesses, which are summarized in table 2.3. Owner financing, minimization of accounts receivables, joint utilisation, deferring payments, minimization of capital invested in stock, and subsidy finance are some of the methods used. Almost every bootstrapping strategy leads to increased efficiency, improved cash flow, better working capital management, and a

stronger firm's liquidity position (Zwane & Nyide, 2016: 435). However, a meta-analysis of the relationship between bootstrapping and performance conducted by Miao, Rutherford, and Pollack (2017) found that while bootstrapping did not improve performance; it did not limit it either. The table below lists the methods for bootstrapping new small and medium businesses.

Table 2. 3- Methods of bootstrapping

<p>Owner Financing Methods</p> <ul style="list-style-type: none"> • Withholding manager's salary for shorter/longer periods • Use of managers private credit card for business expenses • Obtain loans from relative/friends • Employ relative and/or friends at non-market salary • Run the business completely in the home <p>Minimization of Accounts Receivables (Customer Related)</p> <ul style="list-style-type: none"> • Use interest on overdue payment from customers • Use routines in order to speed up invoicing
<ul style="list-style-type: none"> • Offer same conditions to all customers • Offer customers discounts if paying cash • Cease business relations with customers frequently paying late • Deliberately choose customers who pay quickly <p>Joint Utilisation</p> <ul style="list-style-type: none"> • Share equipment with other businesses • Share employees with other businesses • Share premises with others • Borrow equipment from other businesses for shorter periods <p>Delaying Payments</p> <ul style="list-style-type: none"> • Deliberately push payment to suppliers till last day of credit • Buy used equipment instead of new • Hire temporary personnel instead of employing permanent <p>Minimization of Capital Invested in Stock</p> <ul style="list-style-type: none"> • Use routines in order to minimize capital invested in stock • Seek out best conditions possible with supplier/s • Co-ordinate purchases with other businesses • Buy on consignment from supplier/s • Practice barter instead of buying/selling goods <p>Subsidy Finance</p> <ul style="list-style-type: none"> • Obtain Subsidies from Government

Adapted from Tomory (2010:46)

2.3.5.2.2 Retained Earnings

The portion of income not paid to the business's owners is referred to as retained earnings. The funds involved are owned by the company and thus do not create any new liabilities (Shrotriya, 2019: 935). The portion of trading income that does not go to the owners' or shareholders' dividends but is kept for future business development is referred to as retained earnings (Thuranira, 2014: 2). It is such a vital source of funding that the sooner profits are reinvested, the better the organization's growth prospects (Brigham & Houston, 2021:67). Retained earnings also hold the advantage of being readily available and because it does not dilute ownership, are less expensive than external equity. It also signals investment opportunities for the business. However, retained earnings is a limited source of funding, and as a result of the foregone dividend of owners, it has a significant opportunity cost (Thuranira, 2014: 3).

2.3.5.2.3 Private Equity: Venture Capital and Angel Investment

Private equity funding entails a wide range of external investment methods in which a company raises funds from private investors in exchange for a stake in the company. From seed funding to buyouts, capital is provided to private companies whose shares are not publicly traded on a public stock exchange (OECD, 2015: 74). Unlike public equity, private equity investors provide management assistance in the operation of unlisted businesses. According to the OECD (2015: 75), because capital is provided without security collateral, the private equity investor accepts more risk and, as a result, expects a higher return, typically greater than 25 per cent.

Investors hope to profit by exiting once the company's stock price has increased, which usually takes three to ten years (Cusmano & Koreen, 2015:75). Investing in private equity is less risky than stock market investing. Assets are held before maturity and priced on the basis of corporate dynamics rather than market volatility, so trading has little impact on the asset class. The lower exposure to market fluctuations provides investors with a form of defence against down turning stock markets and help them to earn steady and attractive returns (Indivest, 2014:23).

Private equity is divided into two components, as shown in table 2.4, according to the OECD (2015: 74). These include venture capital, which focuses on early-stage companies, and other private equity, such as buyouts, which target established companies. In buyouts, existing owners' shares are purchased, and control of the company is gained. Management buyouts, management buy-ins, institutional buyouts, and leveraged buyouts are all examples of buyouts (OECD, 2015: 75). Investors pool their money with borrowed money to purchase a business in leveraged buyouts, which account for the majority of private equity funds. Normally, the assets of the company being purchased are used as collateral for the borrowed funds, with the

company's cash flow used to pay off the debts (OECD, 2015: 75). This ensures that investors can purchase a company without needing a large sum of money.

Private equity firms are frequently organized as limited partnerships. Limited partners, such as pension funds, insurance companies, hedge funds, and affluent individuals contribute money to the general partner. The ability to earn a high rate of return on their invested capital by accessing a portfolio of investments selected and managed by an investment team is the primary economic motivation for these investors. Because of information asymmetry, private equity is based on the belief that unlisted markets, unlike public markets, are inefficient. To profit from these inefficiencies, a thorough understanding of the market's prospects based on business dynamics and growth potential assessment is required. Private equity managers must also have access to comprehensive data on prospective investment managers' expertise and competence, which is critical for equity investors (OECD, 2015:75). The components of private equity are listed in the table below.

Table 2. 4 -Private Equity by Stage

	Stages	Definition
Venture capital	Pre-seed/Seed	Financing provided to research, assess and develop an initial concept before a business has reached the start-up phase
	Start-up/ Other early stage	Financing for product development and initial marketing. Companies have not sold their product commercially and are in the process of being set up.
	Later stage venture	Financing for the expansion of an operating company.
Other Private Equity	Growth	Investment in relatively mature companies that are looking for capital to expand into new markets or restructure operations.
	Buyout	Financing to acquire a company. It may use a significant amount of borrowed money to meet the cost of acquisition.
	Replacement	The purchase of a minority stake of existing shares in a company from another private equity firm or from another shareholder or shareholders.
	Rescue/Turnaround	Financing made available to an existing business in difficulty, with a view to re-establishing prosperity.

Source: OECD (2015:74).

In all of this, the key external equity providers for nascent small and medium businesses are families and friends, business angels and venture capitalists (OECD, 2015: 76). According to Abor (2017: 33), family and friends is a great place for a nascent entrepreneur to seek funding. This is because the entrepreneur is known to the family and friends, and information asymmetry is mitigated. Aside from equity, family and friends are able to provide debt capital. The entrepreneur need not provide collateral or assurances to assess funds from family and friends. However, the funding process should be handled properly, and contractual terms adhered to by all parties as far as possible (Abor, 2017:33).

Business angels are high-net-worth individuals who, in exchange for equity, invest their own money directly in nascent small and medium businesses (Mason & Harrison, 2008: 309). Business angels thus maximise their returns through the sale of start-up shares. This is valid since business angels typically have financial freedom (Cusmano & Koreen, 2015::86). According to Lundmark (2015: 152), business angels typically have the following profiles:

- The regular Business Angel is a middle-aged male with experience in running a small and medium enterprise.
- The decision to invest is stimulated by a combination of the promise of good financial returns and substantial non-financial motivation, such as contributing to society and becoming active in an entrepreneurial achievement.
- Transaction cost for business angel investment is low as Business Angels can arrive at a decision quickly since they invest their own money.
- Business Angels rely on a close network of business partners and friends to refer them to potential investment opportunities.
- Business Angels are drawn to market opportunities where their skills, expertise and network add value.

In appraisal mechanisms, Business Angels see trust as a key issue as they highlight human and social aspects such as openness, honesty, pragmatism, and uprightness (Maxwell, 2016:121). From the foregoing, small businesses need to display a portfolio of integrity to be able to attract Business Angels. While Business Angels invest primarily for the purpose of generating financial returns, they can also make a significant contribution to the business by bringing their expertise and experience to bear on the nascent venture. One of Business Angels' goals is to mentor and develop potential and aspiring entrepreneurs. However, their level of participation

or involvement in the operation of the company should be managed so that conflicts do not arise (Abor, 2017:34).

Venture capital is a type of private equity that invests in new and growing businesses with a high potential for growth and the potential to go public in the future (Abor, 2017: 34). In terms of structure, there are two types of venture capital investors: general partners and limited partners. The general partner takes an active role in the fund's activities and contributes a portion of the venture capital funds. However, the contributions are insignificant in comparison to the contributions of the few partners. The fund's know-how and expertise are managed by the general partner. The fund's know-how and expertise are managed by the general partner. They are crucial to the success of the venture capital fund. Limited partners are passive investors who contribute the majority of the funds required for the venture (Abor, 2017: 34).

Despite the fact that venture capitalists are often touted as the primary source of seed and early-stage funding, the majority of their investments are in companies that have already received funding. Typically, venture capitalists provide funding after a business idea has been evaluated and is ready for full-scale production (OECD, 2015: 77).

Venture capital funds, on the other hand, are typically divided into stages of development, such as start-up, product development, revenue generation, and seed-stage investments (Ernst & Young, 2014). Although venture capital can bring in technical expertise, it can also impose strict management restrictions (OECD, 2015: 78). However, as shown in table 2.5, venture capitalists and business angels operate and engage in a shared space of opportunity that is creative and has high growth potential, but they differ in terms of objectives, goals, and operating models, *inter alia*.

Table 2. 5-Key Differences Between Angel Investors and Venture Capitalists

Characteristics	Angel investors	Venture capitalists
Background	Former entrepreneurs	Finance, consulting, some from industry
Investment approach	Investing own money	Managing a fund and/or investing other people's money
Investment stage	Seed and early stage	Range of seed, early stage and later stage but increasingly later stage
Investment instruments	Common shares (often due regulatory restrictions though)	Preferred shares
Deal flow	Through social networks and/or angel groups/networks.	Through social networks as well as proactive outreach
Due diligence	Conducted by angel investors based on their own experience.	Conducted by staff in VC firm sometimes with the assistance of outside firms (law firms, etc.).
Geographic proximity of investments	Most investments are local (within a few hours' drive).	Invest nationally and increasingly internationally with local partners
Post investment role	Active, hands-on	Board seat, strategic
Return on investment and motivations for investment	Important but not the main reason for angel investing	Critical. The VC fund must provide decent returns to existing investors to enable them to raise a new fund (and therefore stay in business)

Source: Wilson (2011:39)

2.3.5.2.4 Public Offerings of Equity

A public offering differs from a private equity investment in that it involves selling company shares to the general public. Even though it raises large sums, the process involves an initial public offering in a primary market, and before enlistment on organized exchanges, it requires a credible track record (Abor, 2017: 36). As a result, this type of financing may not be appropriate for new small and medium businesses. As a result, public equity markets currently account for a small portion of small business funding (Nassr & Wehinger, 2016: 50). Nonetheless, there are benefits to small and medium business public equity offerings that go beyond initial access to capital in the form of an IPO to longer-term repeat access to capital, as well as benefits related to increased creditworthiness, transparency, and visibility through a dedicated ecosystem (Nassr & Wehinger, 2016: 50). For SMEs, listing requirements in primary

markets are typically high. Nonetheless, as shown in table 2.6, a number of equity markets aimed at smaller listings have been established in various jurisdictions.

Table 2. 6 - Information on SME Exchanges in Different Jurisdictions

Exchange	Launch Date	Target Companies and Startups	Number of Companies Listed since Launch	Number of Companies Listed as of March 2014	Current Sector Breakdown
NSE India Emerge	2012	No specific sector or type of company targeted. Post issue paid-up capital > \$4.16 million. Startups allowed.	5	5 (no foreign listings)	Manufacturing, 20% service industries
JSE AltX	2003	No specific sector or type of company targeted. Share capital > \$200,000. No startups allowed.	106	60 (has foreign listings)	71% financials, 15% industrials, 7% technology, 5% basic materials, 1% consumer goods, 1% remaining sectors
GreTai	1994	No specific sector, type, or size of company targeted. No startups allowed.	1,133	663 ^a (22 foreign listings)	70% electronics, 14.5% biotech and medical care, 8.4% traditional business, 7.1% other
BOVESPA MAIS	2005	No specific sector, type, or size of company targeted. Startups allowed.	9	9 (no foreign listings)	22% noncyclical consumer, 22% IT, 22% public utilities, 11% basic materials, 11% capital goods, 11% telecommunications
WSE NewConnect	2007	No specific sector or type of company targeted. Issuer capital > \$ 0.16 million. No startups allowed.	508	442 (11 foreign listings)	15% retail, 13% support services, 10% financial services, 9% IT, 8% media, 8% technology, 7% construction, 5% health care, 5% investment services, 4% real estate, 16% other
BIST ECM	2009	No specific sector, type, or size of company targeted. Startups are allowed.	23	22 (no foreign listings)	9% agriculture, 4.5% apparel, 4.5% financial services, 13.6% food and beverages, 54.5% industrial goods and services, 9% investment companies, 4.5% wholesale trade

Adapted from Harwood & Konidaris (2015:13)

The investor base of small and medium enterprises that list on these exchanges is expanded, and risks are distributed equitably. As a result, the firm's capital structure is strengthened (Nassar & Wehinger, 2016: 59). IPOs provide capital to SMEs without requiring them to give up majority ownership. SME exchanges appeal to a broader and more diverse investor base, and

IPOs provide capital to SMEs without requiring them to give up majority ownership. Furthermore, it allows early-stage capital providers such as venture capitalists and business angels to exit, incentivizing them to provide even more early-stage capital (Harwood & Konidaris 2015:13). Small and medium businesses that are looking to expand and innovate can benefit from a public listing of their company (Thomadakis, 2017: 3).

2.3.5.2.5 Hybrid Instruments

Hybrid instruments combine the characteristics of debt and equity (Abor, 2017: 43). They differ from traditional debt financing in that they involve a greater risk-sharing and reward structure between the investor and the small or medium business that will be using the funds. The latter takes more risk and expects a higher return than a senior loan provider, implying a higher financing cost for the company. However, the risk and expected return are lower than in the case of equity, resulting in a lower cost of capital for the company. Investors in hybrid instruments have a lower ranking than other creditors in the event of insolvency but a higher ranking than equity capital providers (OECD, 2015:64). Hybrid instruments include subordinated debt, convertible debt, and mezzanine finance (OECD, 2015: 64).

When a debtor is liquidated, subordinated debt is a special type of debt with the lowest credit seniority. This type of funding is typically issued by banks in order to meet their strict equity requirements (Bustos-Contell, Labatut-Serer, Ribeiro- Navarrete, & Climent-Serrano, 2019: 2). It's an unsecured loan in which the creditor's claim for repayment falls behind that of senior debt providers but ahead of that of equity providers in the event of default. Subordinated loans usually have a fixed interest rate, regardless of the company's financial situation (OECD, 2015: 64).

Convertible debt is a type of debt that has a set maturity date and repayment terms, as well as the ability to convert the debt into stocks, derivatives, or even other debt. The value of a convertible bond is the sum of the bond component value and the option component value (OECD, 2015: 64). In that it is debt finance that can be converted into an equity interest, mezzanine finance has both debt and equity characteristics. It is usually long-term finance with a maturity of more than five years and can be paid out in one lump sum. The company does not have to pay on a monthly basis, which helps with cash flow. Small businesses with a proven track record and high profitability typically use mezzanine financing (Abor, 2017: 43). Following a discussion of the various financing options available to small and medium-sized businesses, the following section explains capital structure using major capital structure theories.

2.4 UNDERSTANDING CAPITAL STRUCTURE

Capital structure analysis commenced after the Modigliani and Miller theorem and the unrealism of their assumptions that the source of funding does not impact the value or profitability of the enterprise (Xhaferi & Xhaferi, 2015: 327). Subsequently, new theories have been propounded. Businesses need funds to grow and expand. Such funds may be either debt or equity, the choice of which could lead to survival or insolvency. According to Lundmark (2017: 80), capital structure has an impact on a venture's efficiency and survival, and as a result, a variety of theories have attempted to explain how it affects the firm. This study is based on five key capital structure theories that apply to entrepreneurial ventures. These are the Modigliani and Miller theory, the trade-off theory, the pecking order framework, the signalling theory and the life cycle theory. The following sections will go over these theories in greater detail.

2.4.1 Modigliani and Miller Theory

Many studies, such as Martinez, Scherger, & Guercio, 2019: 107), hold the view that the Modigliani and Miller theorem is one of the most central propositions on the subject of capital structure. Modigliani and Miller (1958) believed that the value of each venture was unaffected by the mix of its capital. Thus, the capital structure was irrelevant. According to this proposition, markets are efficient, and there are no bankruptcy costs, taxes or information asymmetry (Bose, 2010:92). In essence, Modigliani and Miller (1958) assumed that there exists a world of perfectly efficient markets in which businesses pay no taxes, shares and bonds are traded without transaction costs, and insolvency is a possibility. Still, there are no bankruptcy expenses, and also information is symmetric with market participations having the same information.

Therefore, according to Modigliani and Miller (1958),

$$V_L = V_u$$

Where V_L is the value of the unlevered venture

V_u is the value of the levered venture

The equations indicate that as per the theorem, the firm's relative composition of debt and equity do not matter. Therefore, per the proposition, a company's market value depends not on its capital structure but on operating profits and business risks. Thus, in the 1958 proposition of Modigliani and Miller, the company is deemed not to derive any benefits from interest payments, as is illustrated in figure 2.14.

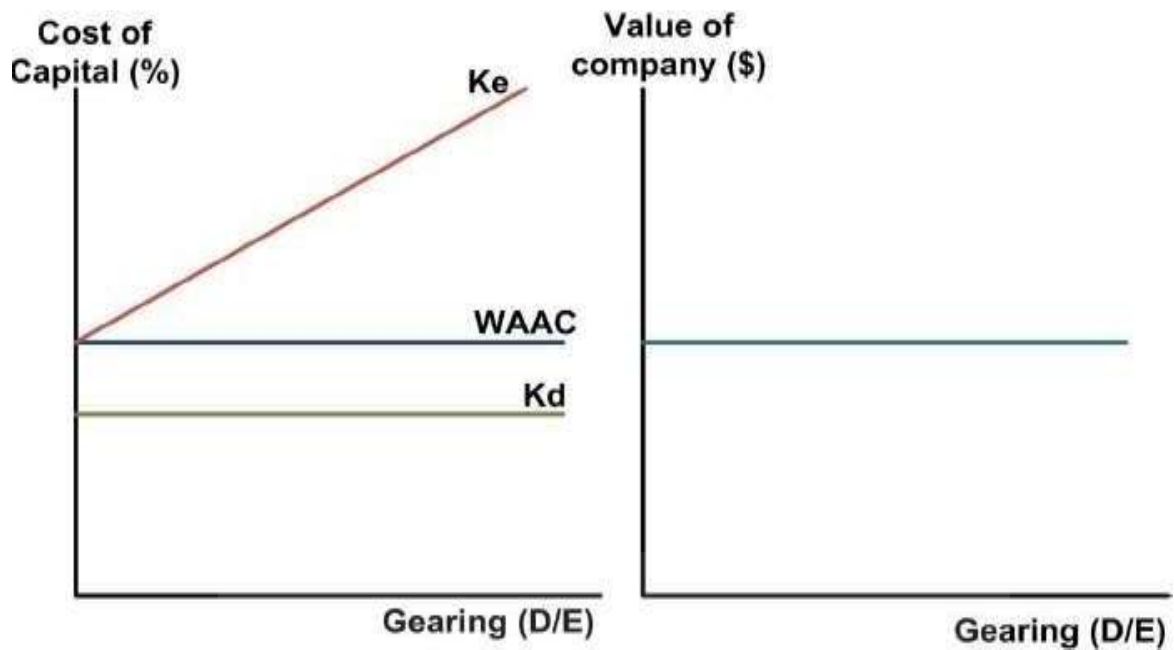


Figure 2. 13- The Cost of Capital and the Value of the Company According to the Modigliani and Miller Theorem (Without Taxes)

Source: Ahmeti & Prenaj (2015:918).

Modigliani and Miller (1963) revised their original proposition and assumptions of efficient capital markets, admitting that leverage has a tax advantage as interest payments are tax-deductible. As is illustrated in figure 2.13, the second proposition incorporates tax savings from interest deduction and hence concludes that “changes in the capital structure affect the weighted average cost of capital” (Alifani, & Nugroho, 2013:3). The second Modigliani and Miller theorem suits the conditions of the real world. It accepts that firms pay taxes, and there are bankruptcy and agency costs, and financial market transactions suffer from information asymmetry.

In the second proposition, Modigliani and Miller (1963) argue that the corporate tax ratio is equal to the present amount of tax savings. To pay less tax, the organization will reduce the weighted average cost of capital by increasing the capital structure debt percentage. As a result, substituting debt for equity creates profits by reducing tax payments (Durlauf & Blume, 2008: 673). Taxes on interest payments that are higher than taxes on equity returns, on the other hand, limit or eliminate the debt funding benefit for the business (Durlauf & Blume, 2008: 673). “By proposition II, Modigliani and Miller (1963) showed that the underlying assumptions of proposition I were unrealistic” (Ahmeti & Prenaj, 2015: 919).

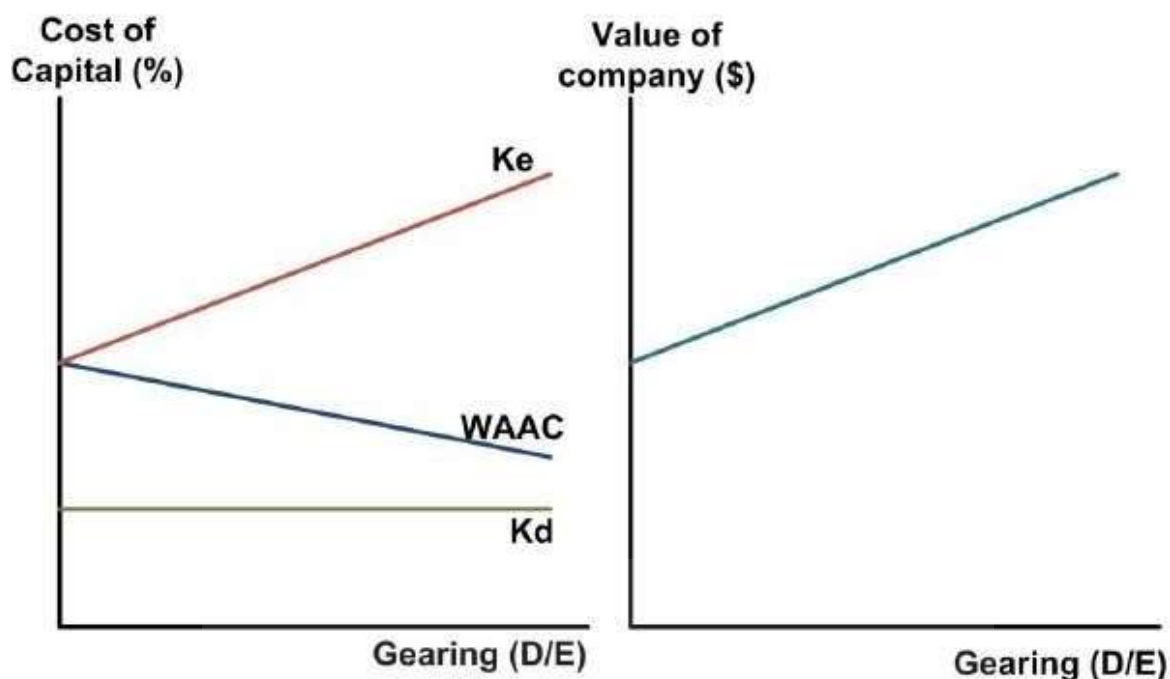


Figure 2. 14- The Cost of Capital and the Value of the Company According to the Modigliani and Miller Theorem (With Taxes)

Source: Ahmeti & Prenaj (2015:919).

The relative debt-equity composition of a company has no effect on its market value, according to Modigliani and Miller (1958). Changes in capital structure, on the other hand, affect the weighted average cost of capital and thus the firm's value, according to their revised argument. In this study, the firm's value is determined by its net worth, which is defined as the total assets of the company after all liabilities have been paid. Capital structure has an effect on the value of small and medium businesses and thus on the liability of newness, according to this study's hypothesis. If this is the case, then Modigliani and Miller's revised proposal stands up to scrutiny. In the next section, the trade-off theory, another important capital structure theory, is discussed and related to this study.

2.4.2 Trade-Off Theory

“It is essential for business owners to decide how to fund the venture as the typology of financing matters for business growth or survival” (Lundmark, 2017:87). The trade-off framework asserts that companies strive for an optimal capital structure and balance the fiscal advantage of leverage as adduced in Modigliani and Miller (1963) and the downsides of increasing indebtedness which may result in financial distress. As Lundmark (2017: 87) points out, when firms do not place a ceiling on borrowing, interest payments begin to climb with its associated possibility of insolvency, thereby eating up any potential tax advantages. This

indicates that businesses should borrow up to an optimal point to maximise their capital structure, at which point the marginal gain of leverage is higher or equal to the cost attributable to bankruptcy and agency cost (Lundmark, 2017: 87).

The trade-off framework, as postulated by Myers (1984) accepts market imperfections and theorises those ventures have an optimal, value-maximising debt-equity ratio that presents more debt advantages over disadvantages. According to the “trade-off theory”, businesses should establish a target debt ratio and gingerly work to achieve it. It does appear that the trade-off framework is an extension of the Modigliani and Miller theorem as it inculcates the effects of taxes and bankruptcy cost (Cekrezi, 2013:129).

Businesses with safe, tangible assets and a lot of shield-taxable revenue should have high target ratios, according to Brealey and Myers (2003:509). Unprofitable businesses with intangible assets should rely primarily on equity financing. If there were no cost of adjusting the financing structure, each company would always be at its target debt ratio (Breadley & Myers, 2003: 509). As a result, according to the trade-off theory, the firm's value is expressed mathematically as follows:

$$V = D + E = VF + PV_{(\text{tax shield})} - PV_{(\text{cost of financial distress})}$$

Where:

V is the value of the leveraged firm

D is the value of the debt

E is the value of the equity

V.F. is the corporate value with equity funding

P.V. _(tax shield) is the present value of future taxes saved on account of interest rate tax deductions

P.V. _(cost of financial distress) is the present value of future cost as a result of a higher debt default risk.

To summarize, the trade-off theory extends the capital structure irrelevance theory while tempering the assumption that financial distress has no cost in leveraged situations. This is what leads to the optimal point at which the firm's value is maximized. This model, as described, is the “static trade-off theory” which is complemented by the “dynamic trade-off theory”. The static trade-off theory is illustrated in figure 2.15.

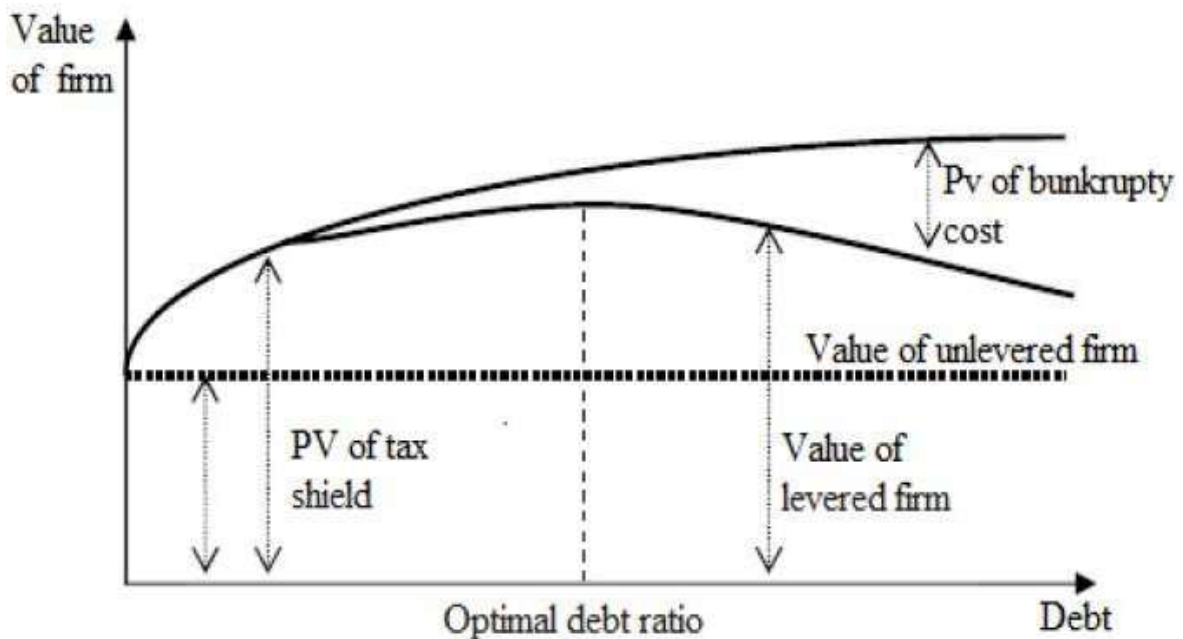


Figure 2. 15- Static Trade-off Theory

Source: Myers (1984:577)

2.4.2.1 Dynamic Trade-off Theory

An enterprise is deemed to pursue the “static trade-off theory” if the company's optimal leverage target is calculated by a single period of the balance between the debt tax benefits and the deadweight costs of financial distress. The anticipated marginal benefits and the debt cost may differ over time with changing firm characteristics. In the dynamic trade-off model, the optimal target level shifts in time (Jardine, 2014:24). Thus, the “dynamic trade-off theory” indicates that companies allow their leverage ratios to vary within an optimum range (Dudley, 2007:1).

As the dynamic trade-off framework takes into consideration costly adjustment, capital structures may not always suit the leverage ratio that has been targeted (Dudley, 2007:1). This is because companies cannot remove or prevent random events that digress from the optimal point (Ghazouani, 2013: 626). Empirical evidence from the Dudley (2007) study confirms the predictions of the dynamic trade-off theory, which suggest that profitability and interest rates minimise the range. In sum, the trade-off theory offers plausible explanations for the capital structure conundrum. Nonetheless, as Lundmark (2017: 87) points out, the optimal leverage may vary depending on the business's context and the nature of its processes.

The prediction of the dynamic trade-off theory as summarised by Dudley (2007:5) is enumerated below:

- Optimal leverage rises with tax rates because of the advantages of debt. However, increasing the tax rate increases the possibility of insolvency as higher interest payments make the prospect of bankruptcy more likely.
- Optimal leverage rises with tax rates because of the advantages of debt. However, increasing the tax rate increases the possibility of insolvency as higher interest payments make the case of bankruptcy more likely.
- In the face of increasing volatility, the venture will widen its leverage range to decrease transaction costs.
- The tax benefits of debt do not impact higher interest rates as higher discount rates countervail higher interest payments. Nevertheless, the present value of bankruptcy cost is not reduced.
- A higher adjustment cost results in costly debt management, which results in lower target leverage. Small and medium enterprises have more comprehensive leverage ranges, and therefore, adjustment cost is higher for SMEs compared to large firms.
- Owing to increased bankruptcy costs, companies will opt for less debt to decrease risk. This way, the corporation will lessen the possibility of default.

Businesses whose debt levels fall short of their targets may change their capital structure if the benefit outweighs the cost of adjustment. Firms should adjust their capital structure if the benefits outweigh the costs, according to Fischer, Heinkel, and Zechner (1989), as cited by Dierker, Kang, Lee, and Seo (2015:1). The dynamic trade-off theory suggests that in the absence of adjustment costs, firms will increase their debt levels in order to benefit from tax shields. In such situations, leverage and profitability are positively related (Dierker et al., 2015:2). Nonetheless, as a result of the possibility of a considerable adjustment cost, it may be preferable for businesses to be inactive in terms of adding more leverage as capital may be costly. Adding more debt capital may result in a leverage ratio that may not be desirable (Dierker et al., 2015:2). The ability of the dynamic trade-off framework to explain the antagonistic relationship between debt and firm performance, such as the result of adjustment costs, is one of its most important features (Strabulaev, 2007:1750).

2.4.2.2 Similarities and Dichotomy between Static and Dynamic Trade-Off Theories

The “dynamic trade-off theory” implies that there is an optimum range with which businesses allow their leverage ratios to vary. The “dynamic trade-off theory” presumes that it is not all the time that firms attain their target leverage ratios with the financing decisions they make (Dudley, 2007:2). Businesses weigh the tax benefits of debt against the risk of insolvency and bankruptcy in both models of the trade-off framework. This means that businesses have a minimum debt ratio that optimises firm value (Dudley, 2007:4).

“Both models of the trade-off theory, however, acknowledges that it is costly to issue debt as profitability could be adversely affected” (Dudley, 2007:4). Some studies such as Hovakimian, Kayhan and Titman (2012) show that the static trade-off theory cannot adequately account for cross-sectional changes of the capital structure of firms. Dierker et al. (2015:2), on the other hand, give evidence that the time-series variation of the financing decision of firms confirms the “dynamic trade-off theory”. The position of the dynamic trade-off theory that businesses are liable to use equity following an increase in risk and more debt when risk decreases have been validated by studies such as Dierker et al. (2015:25). As a result, because it responds to capital structure decisions over time, the “dynamic trade-off theory” can explain the firm's capital structure in response to changing risk levels better than the “static trade-off theory”.

Several studies have validated and questioned both frameworks. Some of the empirical findings related to the trade-off rationale are summarised below:

- Nascent small and medium enterprises that have substantial internal assets and, therefore, are less likely to fail will pursue more external debt financing. In contrast, high-growth businesses with considerable financial distress possibility would lower their leverage (Cassar, 2004).
- Small and medium enterprises that operate in countries where taxes are high are assumed to utilize more debt (Jarvis, 2006).
- The trade-off framework proposes that firms target optimal leverage to be profitable. However, firms that make such financing decisions are more prone to insolvency (Miglo, 2016).
- The attempt to “trade-off debt tax shields and bankruptcy costs” explains the capital structure of SMEs (Sogorb & López, 2003).

Despite the relevance of the trade-off theory, a consensus on how to determine an optimal debt to equity ratio is yet to be determined (Cekrezi, 2013: 132). However, in essence, the trade-off theory improves on the capital structure irrelevance theory by modifying the assumption that financial distress has no cost in leveraged situations. The association between capital structure and solvency is investigated in this study in order to establish the benefits or drawbacks of using debt. Because the theory states that there is a benefit to debt financing as well as a cost to debt financing, if the cost outweighs the benefits, increased leverage will lead to insolvency and a heightened liability of newness, and vice versa. The next section discusses the Pecking order theory and how it relates to this study.

2.4.3 Pecking Order Theory

Donaldson (1961) first proposed the pecking order theory, which was later expanded by Myers (1984) and Myers and Majilof (1984) for large firms. Companies prefer to use internally generated funds and only use external funds when necessary, according to the pecking order theory. When it comes to external debt, businesses prefer debt to equity financing (Lundmark, 2017: 89). As a result, the pecking order theory assumes a financing hierarchy for all businesses rather than a target optimal capital structure in a single firm.

In the pecking order theory, asymmetric information is an important consideration. Myers (1984:581) indicates that to avoid adverse selection, firms prefer to use internal financing. Asymmetric information makes the price of equity uncertain and expensive. This could turn a profit-making venture into an unprofitable enterprise. Consequently, businesses with inadequate internal funding often forego pursuing growth opportunities if external equity is the only alternative (Laisi, 2016:14). “The use of external equity also introduces a dispersed ownership structure characterised by the tracking cost of the principal, the bonding cost of the agent and a residual loss to the business” (Aguilera & Crespi-Cladera, 2016: 52).

The pecking order framework indicates that the unease with external finance makes retained earnings feature prominently in firms. Retained earnings have the advantage of inciting firm growth, as the more the business ploughs back, the faster it grows (Thuranira, 2014: 2). According to the pecking order theory, firms should use the funding type that has the least information asymmetry (Barclay & Smith Jr, 1999:13). According to the theory, business owners choose the cheapest type of capital by taking the path of least resistance. As a result, businesses prefer retained earnings because it has no adverse selection issues. Entrepreneurs also prefer not to sell an equity stake to outside investors, not only because of the high cost of

equity capital but also because they are concerned about dilution of ownership (Lundmark, 2017: 89).

The venture will only raise debt capital if internal funding is depleted. Entrepreneurs favour short-term debt over long-term debt, according to Lundmark (2017:89). When a company is unable to raise additional debt, it must resort to external equity as a last resort funding source (Chipeta, 2012:34). For businesses with no growth opportunities, the pecking order framework suggests low debt levels and positive free cash flows. Firms with growth potential, on the other hand, will have a lot of debt and negative free cash flow (Chipeta, 2012: 34).

The theory was originally developed to explain large firm financing decisions. Scholars such as Cosh and Hughes (2009) and Ang (1991) have shown that the framework can be applied to new small and medium businesses. Factors such as information asymmetry in entrepreneurial firms make it straightforward for such firms to settle for internally generated funding. Lundmark (2017:89) also indicate that the unwillingness of entrepreneurs to invite outside partnerships and thereby dilute control and the need for flexibility make the pecking order theory plausible for small and medium enterprises. As a result, Lundmark (2017:89) concludes that, in accordance with the pecking order theory, small and medium enterprises prefer to use internal equity and only resort to external capital when internal resources are fully utilized.

The validity of the pecking order framework has been confirmed by numerous studies. Agyei, Sun, and Abrokwah (2020) use data from 187 Ghanaian small and medium businesses. The study discovered evidence that small and medium enterprises in Ghana exhibit the pecking order theory's propositions. Jarallah, Saleh, and Salim (2019) use a sample of 1,362 publicly traded non-financial Japanese firms to find evidence that financing decisions are consistent with the pecking order model. In the Moroccan context, Aabi (2014) investigated pecking order theory and SME financing. In line with Agyei et al. (2020) and Jarallah et al. (2019), the study discovers that elements of the pecking order theory are present in business capital structure mechanisms. These findings show that the pecking order theory is effective in explaining capital structure in firms.

The pecking order framework suggests that firms' apprehension about external financing causes retained earnings to take centre stage. Retained earnings have the benefit of spurring company growth, as the more funds a company ploughs back, the faster it grows (Thuranira, 2014: 2). The aim of this study is to find financial management practices that can reduce the liability of newness. The study tests Thuranira's (2014) findings and adds to the literature on

whether reinvesting profits helps firms grow faster. Insolvency is avoided when firms grow faster. If SMEs use more retained earnings, it indicates that they follow the pecking order theory.

There are significant differences between the pecking order theory and the trade-off theory. According to the pecking order theory, a financially sound company, for example, relies less on debt and more on internal equity. The trade-off theory states that the more cash flow a profitable company generates, the more debt it generates, and as debt capacity grows, it will be used to capture tax and leverage benefits. The following section compares and contrasts the two theories.

2.4.4 Trade-Off Theory Versus Pecking Order Theory

According to Agyei et al. (2020: 2), citing Myers (1984), the trade-off theory proposes that firms seek an optimal capital structure that balances the advantages and disadvantages of debt financing. Firms will benefit from tax breaks by incurring interest payments, but they will also expose themselves to the risk of financial distress. The pecking order theory, on the other hand, does not support the concept of an optimal capital structure. Shyam-Sunder and Myers (1999:220) describe a framework that employs the asymmetric information mechanism to postulate a hierarchy of financing preferences, with internally generated funds such as retained earnings serving as the preferred source of funding.

Fama and French (2002:1) found evidence for and against both propositions in a widely cited study. According to Frank and Goyal (2003:152), the pecking order theory is inconsistent among small and medium businesses. On the other hand, Lemmon and Zender (2010:1161) found no evidence to support the trade-off theory. However, studies like Byon and Rhim (2002) argue that both theories can explain the debt-to-equity ratio in businesses. The pecking order theory explains why businesses prioritize internal funds and prefer debt over external equity. Hence, Cotei and Farhat (2009:3) assert that the leverage of a firm is not driven by an optimal target debt to equity ratio but by the company's cumulative attempts to reduce asymmetric information. In support of the trade-off theory, Serrasqueiro and Caetano (2015:445) find results that show SMEs adjust their debt ratio towards an optimal debt ratio.

According to Köksal and Orman (2015: 8), neither theory is significantly superior to the other, but they could be differentiated from each other based on firm-specific variables such as size, profitability, tangibility, growth, business risks, corporate taxes and non-debt tax shields. They could also be differentiated based on macroeconomic indicators such as Gross Domestic

Product and Inflation. In terms of size, the trade-off theory posits a positive relationship between size and leverage (Köksal & Orman, 2015: 8). The reason is that bigger businesses are more diversified, and the possibility of default is low. On the contrary, the pecking order theory suggests a negative relationship between the two variables as large mature firms are less confronted with adverse selection issues and can raise equity relatively easier (Köksal and Orman, 2015: 8).

Profitability and debt are expected to have a positive relationship, according to the trade-off theory. Default risk is lower for businesses that are profitable, and to such firms, debt interest-tax shields are necessary (Köksal and Orman, 2015: 9). “Contrary to the trade-off theory, the pecking order theory assumes that leverage and profitability are negatively related because profitable businesses are able to use their earnings to finance growth opportunities and thus have fewer external capital requirements” (Köksal and Orman, 2015: 9). Regarding tangibility, the trade-off theory posits a direct relationship with leverage. This is because when companies go into financial distress, tangible assets are easier to collateralize; hence they experience a smaller loss of value (Köksal and Orman, 2015: 10). According to Harris and Raviv (1991:303), the pecking order theory forecasts an inverse relationship between debt and tangibility since the low information asymmetry connected to tangible assets makes it less expensive to issue equity capital.

Debt has a negative relationship with growth, according to the trade-off theory. The pecking order theory, on the other hand, shows a link between leverage and sales growth. According to Köksal and Orman (2015: 10), internally generated funds are unlikely to be sufficient to support growth opportunities for fast-growing companies. This increases their need for external debt financing. When it comes to business risk, the trade-off theory and the pecking order theory have something in common: both theories suggest a negative relationship between debt and risk. According to Frank and Goyal (2008:150), the risk of losing income tax shields increases when earnings are less than tax shields. Market risk exacerbates the adverse selection phenomenon between businesses and creditors, according to the pecking order theory (Köksal & Orman, 2015: 10).

According to the trade-off theory, corporate tax rates and debt use have a positive relationship. This is due to the tax advantages of using debt due to interest payments. Depreciation deductions and allowances for depletion offset the tax benefits of debt financing for corporations. As a result, companies with more non-debt tax shelters tend to have lower debt

levels. As a result, according to the trade-off theory, debt and non-debt tax shields have a negative relationship (Köksal & Orman, 2015: 10).

In terms of macroeconomic indicators and their effect on capital structure, the trade-off theory predicts a direct relationship between leverage and inflation. Frank and Gopal (2009), however, indicate that inflation may not be a deciding factor in the pecking order framework. Gross domestic product, which shows the size of an economy, is negatively related to leverage according to the trade-off theory and in contrast to the pecking order theory (Köksal & Orman, 2015: 13). According to the pecking order theory, the high growth opportunities provided by GDP growth will necessitate the use of external capital. With such disparities in opinion between the pecking order theory and the trade-off theory, this study evaluates which of the theories nascent small and medium businesses can adhere to in order to minimize the effect of the liability of newness. The signalling theory, part of the capital structure theories, is discussed in the section below.

2.4.5 Signalling Theory

Signalling theory has been related to small business management research in recent years (Lundmark, 2017: 91). Spence (1973) introduced the theory to economics and business management to indicate the signalling function of education in the job market. It is applicable to describe the actions of counterparties in a transaction when the two parties have access to different information, and a party has to indicate a signal of which the other party has to interpret (Lundmark, 2017: 91). In that regard, it helps in minimising asymmetric information. The theory is essentially concerned with how to mitigate asymmetric information between counterparties. For nascent small and medium enterprises, signalling theory is used to signal legitimacy through a demonstration of entrepreneurial virtues such as satisfying entrepreneurial competency and managerial capabilities (Lundmark, 2017: 91). Gaining normative legitimacy is especially important for the venture to be able to attract capital. Hence positive signals need to be sent to the market to indicate creditworthiness and profitability.

According to Lundmark (2017: 92), signs are particularly important for nascent businesses that have difficulties in demonstrating their viability, reputation, and capacity to survive. Nascent firms have no credible historical data to demonstrate adequate liquidity and solvency capacity, and in the absence of such indicators of survival, symbolic signals become key (Lundmark, 2017: 92). Connelly et al. (2011:43) indicate that such suggestive signals include the establishment of a limited liability company instead of a sole proprietorship and associating

the nascent venture to businesses with high calibre. Establishing a media presence also helps create an aura of competence for the business founders.

Business founders who are unable to transfer viable signals to financiers to quell doubts about their legitimacy and profit potential will have trouble raising capital (Alsos & Ljunggren, 2017: 58). According to Connelly et al. (2011: 43), the signalling theory involves some primary components or actors which are worthy of note. These are the signaler, the receiver and the signal, as illustrated in the timeline in figure 2.16. There is also a feedback mechanism to the signaler and the environment within which the signal functions.

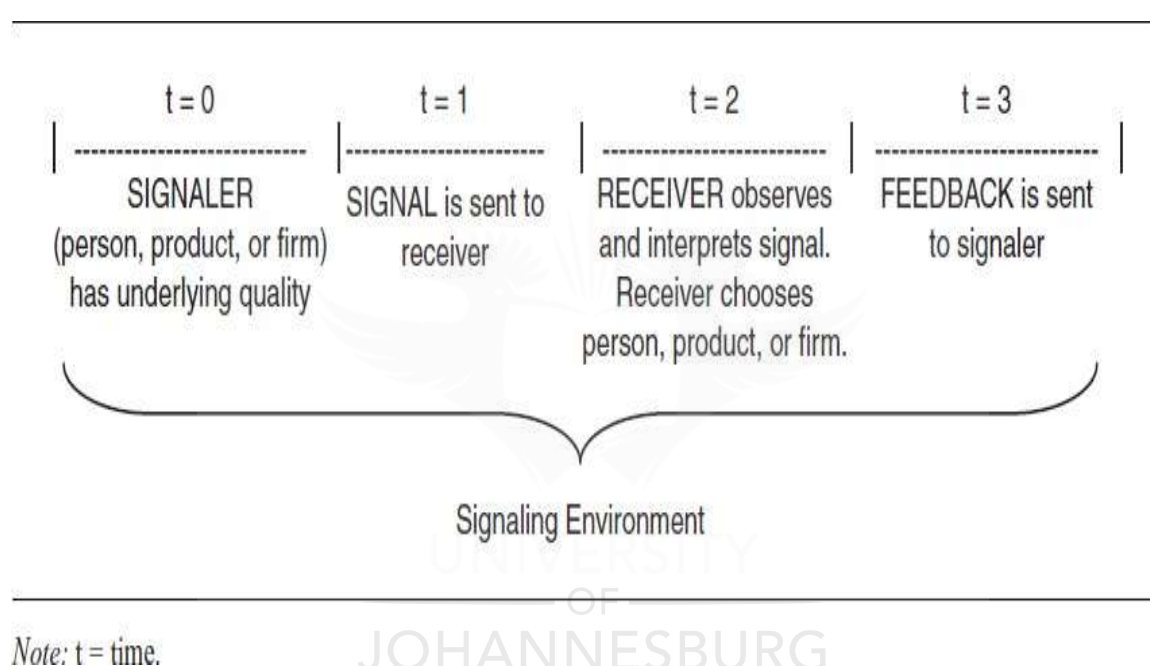


Figure 2. 16-Signalling Timeline

Source: Connelly et al. (2011:43).

A signaler is mostly the business owner or business manager who have information that is not widely available. According to Connelly et al. (2011:44), such information may include revenue position or any other news that portends a positive prospect for the organisation. The signal is the private information that the signaler holds. In terms of capital, Connelly et al. (2011: 44) explain that issuing external equity, for example, may indicate that the firm is overvalued. Conversely, when managers know that their businesses are undervalued, they will opt for debt (Chipeta, 2012: 33). Contracting leverage sends a signal to receivers of positive cash flow, high liquidity and solvency.

As explained by Brush, Edelman and Manolova (2012:114), businesses should show readiness to contributors of capital by signalling the following readiness:

- Organisational readiness: This is the extent to which top management demonstrate the skill and expertise to run the business.
- Strategic readiness: This is the credential of the company in terms of having clients or goods in an advanced stage and also the readiness of employees in terms of implementing strategy.
- Technical readiness: This is the readiness of the venture to safeguard its intellectual property and demonstrate market readiness.

It is only when the firm has shown a willingness to use resources strategically that capital providers will respond to their demand for capital. As such, according to the signalling theory, the market serves as a supervisor and controller of managerial functions, including its financial decisions. As a result, it can be used as a signal or pointer of a company's solvency, which is the subject of this research. The life cycle theory, which is discussed in the section below, is the final capital structure theory discussed in this study.

2.4.6 Life Cycle Theory

The life cycle proposition posits that as a business matures, it becomes less informationally impervious, and thus funding sources become more willing to provide funds (Lundmark, 2017:93). Suppliers of funds know that information is not homogeneously distributed in the market (Schmidt & Keil, 2013: 214). Mature firms show less information asymmetry and hence are much more attractive to suppliers of debt and equity. As Bergh, Ketchen, Orlandi, Heugens, and Boyd (2019:134) explained, information asymmetry makes the valuation of the qualities and assets of funding applicants complicated for suppliers of funds.

Many small firms below five years, and therefore considered nascent, do not have audited financial statements, and some may even have difficulty signalling normative legitimacy to indicate non-exploitative tendency (Berger & Udell, 1998: 616). As a result, it becomes challenging for nascent small and medium enterprises to overcome informational opacity resulting in low access to funds. The use of different funding sources and the attainment of legitimacy evolve over time (Lundmark, 2017: 94). Thus, at the stage where the venture is newly established, it relies on personal savings, trade credit and funds from family and friends.

According to Lundmark (2017: 94), when the venture starts production, it can fall on retained earnings and only seek external support when internally generated funds are low. In the event of applying for external aid, it can turn to commercial banks since at the stage of production, it is expected of the firm to have started building a track record. In the absence of new growth opportunities and where there is sustained growth, the venture could rely on profits and cash flows. Lundmark (2017:95) explains that when firms gain new growth opportunities by entering international markets, they can turn to institutional venture capital or the stock market to fund the accelerated expansion. Venture capital is suitable for early or growth companies (Vanacker & Manigart, 2013:242). The life cycle theory is not without its plaudits and criticisms. For example, from a managerial standpoint, the supposed power of the life cycle model can assist managers in predicting probable difficulties and opportunities at various periods of life of the enterprise (Yazdanfar & Ohman, 2014:555). Other studies, like Levie and Lichtenstein (2010) and Lester et al. (2003), have criticized the life cycle framework for a lack of empirical relevance and validation, as well as the model's assumption of a linear path for enterprises. Additionally, because enterprises may operate in several industries and create various types of products and services, identifying a firm's life cycle stage is difficult (Yazdanfar & Ohman, 2014:555). Overall, the life cycle theory suggests that each stage of a firm's life cycle is connected with a unique set of challenges and possibilities even as it relates to financing. In this section, the capital structure theories were discussed. The following section delves into the practical considerations that go into financing decisions for small and medium businesses.

2.5 CAPITAL STRUCTURE OF SMEs-EMPIRICAL EVIDENCE

SMEs, just as large firms, need capital to operate. Gaining capital is challenging. According to Abe, Troilo, and Batsaikhan (2015:3), small and medium enterprises are at risk of extinction due to a lack of readily available resources. The cost of capital is also a constraint. Biswas (2014:60) highlights the high cost of external equity for small and medium-sized businesses while acknowledging its importance in financing long-term growth potential. Small and medium-sized businesses' financing preferences are influenced by factors other than the cost of capital, such as the firm's and owner's characteristics (Baker, Kumar & Rao, 2020: 7). Legal status, business stage, firm size, sector, and export activity are all factors that influence small and medium business financing preferences.

Baker et al. (2020:7) find statistically significant differences in internal equity financing, short-term financing, and long-term financing among sole proprietorships, partnerships, and private

limited companies. The study found that small businesses prefer internal equity financing the most. The pecking order theory agrees with this conclusion. The study also discovered that moving from a sole proprietorship to a partnership and then to a limited liability company makes it easier to obtain funding. Financing preferences vary across the various growth stages of the firm, which are incubation, growth, maturity, and expansion stages. According to Baker et al. (2020: 8), as small businesses progress across the growth stages, their preference for both short term funding and long-term funding increases. In their study, Berger and Udell (1998:662) conclude that financial institutions are sceptical of younger firms as a result of information opacity and hence are less creditworthy. The age of firms is therefore directly proportional to the venture's ability to attract credit as such firms in the early stages of their existence settle for owner funds and other internally generated funds.

Small and medium businesses have different financing preferences. Small businesses, according to Baker et al. (2020:8), require less capital than medium-sized businesses. Larger firms had more leverage in their capital structure in Ghana, according to Abor (2008: 27). The preferences for short-term and long-term financing differ significantly between manufacturing and service firms. Manufacturing firms require more funding than service firms, according to Baker et al. (2020: 8), and this requirement is contingent on funds being available. Baker et al. (2020: 8) find that small and medium enterprises in the manufacturing industry with tangible assets are more likely to obtain external funding than service firms with intangible assets. Baker et al. (2020:8) further find that small and medium enterprises that export prefer short-term funding and external equity to non-exporters in terms of export activity.

Financing preferences are influenced not only by firm characteristics but also by owner preferences for specific funding types. Gender, for example, has been discovered to play a role in the capital structure of small and medium businesses. Watson, Newby, and Mahuka (2009:42) found that women are more risk-averse and shy away from outside funding in their study. Female business owners, on the other hand, prefer a higher level of external equity funding than male business owners, according to Baker et al. (2020: 9). In comparison to males, females prefer lower internal equity funding and long-term funding, according to the study.

The age of the business founder is also significantly correlated to the typology of funding. According to Briozzo and Vigier (2009:30), it becomes less difficult to obtain external funds from financial institutions with advancing age. Baker et al. (2020:9) indicate that older entrepreneurs who are sixty-five years and above indicate a strong preference for external equity financing. In terms of educational attainment, Borgia and Newman (2012:198) find a

link between business owners' academic achievement and leverage. Thus, the more academically advanced the entrepreneur is, the more likely the venture will use more debt. This finding is unlike Baker et al. (2020:10) that did not indicate a positive association between leverage and academic advancement of small business owners. In regard to experience, business owners that have high entrepreneurial experience tend to prefer internal equity funding (Baker et al. 2020:10).

Despite the fact that firm and owner characteristics have received the most attention as determinants of capital structure, Jeeveer (2013:484) shows that macroeconomic variables also matter. According to de Jong, Kabir & Nguyen (2008), macroeconomic indices explain leverage as well as firm characteristics. According to Jeeveer (2013: 483), a macroeconomic indicator such as inflation is vital in capital structure decision making. The expectation is that high inflation results in lower interest, and hence businesses will be incentivised to borrow more. De Jong et al. (2008:1964) also demonstrate that firm leverage is influenced by GDP growth. For small businesses, growth GDP is expected to be positively associated with long-term debt and negatively associated with short-term debt (Jeeveer, 2013: 484). In accordance with the trade-off theory, higher taxes are linked to increased leverage. Because it stimulates SME growth and demand for capital, levels of corruption may have an effect on leverage or equity funding (Jeeveer, 2013: 483). In the following section, we define the metrics we used to measure capital structure in this study.

2.5.1 Clarifying the Capital Structure Construct

A business venture's capital structure is a specific mix of debt and equity (Acaravci, 2015: 158). Businesses can choose to finance their projects entirely with debt, partially with equity, or a combination of the two. The literature contains well-developed financial metrics for determining capital structure. As a result, the debt ratio, equity ratio, and debt to equity metrics are used to assess the capital structure construct in this study. The ratios are calculated using financial statement data from Ghana's National Board for Small Scale Industries. The formulas used to calculate the ratios are shown in the following sections.

2.5.1.1 Defining Debt Ratio

The debt ratio is the proportion of a company's assets held by creditors. It relates total liabilities to total assets. According to Abor (2017: 191), total debt covers all current and non-current liabilities. In this study, consistent with extant literature such as Quesada-Pineda (2019:9) and Situm (2014:36), this capital structure metric is calculated thus:

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

2.5.1.2 Defining Equity Ratio

This ratio uses the total assets of the business and its equity to show how the business finances assets by the use of equity. A low equity ratio indicates that the business is highly leveraged, and it shows a greater financial risk as assets are primarily purchased by non-equity sources or debt capital. A high ratio portends a strong efficiency in the management of equity capital, such as retained earnings. A high ratio also indicates a high-term strong solvency position. Generally, firms with a high equity ratio have a lower debt ratio and are less likely to be insolvent (Situm, 2014: 30). The equity ratio is calculated in this study as follows, as it has been in previous studies such as Situm (2014:30) and Laitinen and Laitinen (2000:341).

$$\text{Equity Ratio} = \frac{\text{Total Equity}}{\text{Total Assets}}$$

This ratio denotes the proportion of a company's capital that is derived from debt as opposed to internal and external equity sources. A high debt-to-equity ratio increases earnings volatility, while high financing costs increase the likelihood of insolvency (Abor, 2017: 191). As a result, the debt-to-equity ratio reflects the firm's financing decisions. This capital structure metric is calculated in this study using existing literature such as Sari and Hutagaol (2009:2) and Gibson (2012:260), as shown below:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholder's Equity}}$$

Following this section's discussion of capital structure, the next section discusses profitability, which is one of the three major constructs in the study. Profitability is a metric for determining how efficient a company is – and, ultimately, whether it succeeds or fails. This study contends that capital structure and profitability have an impact on the solvency of nascent small and medium-sized businesses.

2.6 SME PROFITABILITY

A profitability analysis gives entrepreneurs a good picture of their business, allowing them to better strategize and plan to mitigate the risk of newness. The importance of profitability to a company's solvency is highlighted in this section. One of the most important characteristics for the long-term survival of small and medium businesses is profitability. Chen and Chen

(2011:127) studied the influence of profitability on firm value and concluded that the greater a firm's profitability, the more ascribable profit there is and the higher the venture's value. As a result, profitability has a significant influence on a company's value. As a result, the main objective of businesses is to improve their profitability (Margaretha & Supartika, 2016:132). As buttressed by Dhliwayo (2016:10), venture survival depends on its profitability.

There are many determinants of profitability. For example, age has been found to have an impact on the profitability of small and medium enterprises. Other determinants of profitability are size, liquidity and leverage (Nunes et al., 2012: 458). However, in studying the factors that affect small and medium enterprise profitability of firms that are listed on the Indonesia Stock Exchange, Margaretha and Supartika (2016) found no association between profitability and age. The study nevertheless indicates a negative influence of firm size and growth on profitability. Irrespective of the firm-specific factors that impact profitability, capital structure decisions of business managers are also key considerations. For example, after evaluating the impact of capital structure decisions of managers of fifty firms between 2008 and 2017, Sing and Bagga (2019: 17) concluded that equity is directly linked to profitability. Singh and Bagga (2019: 17) have also suggested that leverage impacts negatively on profitability.

Profitable small businesses, on the other hand, are creditworthy, according to Yeo (2016: 235), and thus profitability and debt ratio have a positive relationship. It needs to be stressed that profitable companies can accept more leverage as they are in such a financial position to prevent insolvency (Abor, 2008:9). Besides, profitable firms are more valuable to financial institutions and have a more significant potential to take on debt capital. Profitability is such an important indicator of SME health that it is the most significant predictor of insolvency, according to Boata and Gerges (2019:2). Defaulting businesses are almost always unprofitable (Levratto, 2013: 5). A default describes a situation in which a company is not profitable, and its capital is not producing value (Levratto, 2013: 5). As a result, profitability is critical to a business's success.

The ultimate measure of a company's economic success in relation to the capital invested is profitability. The firm must be profitable in order to obtain an acceptable return on the amount of risk agreed upon by the owners and lenders (Lamberg & Vlming, 2009:8). Profits in any organisation, large or small, are determined by two factors: sales and costs (Stanley & Wasilewski, 2017: 141). Profitable businesses generate more revenue than they spend. Profitability measures a company's ability to turn a profit by utilising production factors and capital (Leon, 2018: 70). It indicates how well the company is doing in terms of meeting its

objectives (Issau & Soni, 2019: 59). As a result, firms must be profitable to meet their goals, survive, and reduce the liability of newness. The following section clarifies the profitability construct.

2.6.1 Clarifying the Profitability Construct

Profitability is measured in this study using three metrics: Return on Assets, Return on Equity, and Net Profit After Tax. Each of the three metrics is discussed in detail in the following section, as they provide insight into how profitably SMEs operate and utilize their assets.

2.6.1.1 Defining Return on Assets

A major assessment of the firm's performance for business owners is a measure of the extent to which the enterprise earns benefits from the use of assets. Return on assets determines a company's ability to use its assets to generate profits. Hence, this net income-to-total-assets metric measures the rate of return on the firm's assets (Brigham & Houston, 2021:119). This facilitates the efficient evaluation of an asset as it allows the calculation of the outcome in relation to the amount of capital used to acquire it. It is obvious that a higher return on assets is preferable to a lower return on assets. A low ROA, however, can be caused by a deliberate decision to use a lot of debt, resulting in high-interest expenses and a low net income (Brigham & Houston, 2021:119). This study calculates return on assets as follows, in accordance with existing literature such as Brigham and Houston (2021:119) and Gibson (2012:299).

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}}$$

2.6.1.2 Defining Net Profit After Tax (NPAT)

The amount of profit a company makes after taxes is known as Net Profit After Tax. It is the profit a company would make if it did not have any debt and only had operating assets (Brigham & Houston 2021:81). It is thus the profit that accrues to the owners of the venture, the real sum that the firm can get to retain in order to run the business. Net Profit After Tax is significant because it reflects the final earnings of the year. It is the amount of cash occasioned by the current operations of the company. NPAT can be distributed to shareholders as dividends, or it can be reinvested in the company's operations as retained earnings. The portion of profits that is not distributed as dividends is referred to as retained earnings (Shrotriya, 2019:935). NPAT is calculated in this study in accordance with existing literature such as Brigham and Houston (2021:81) and Kemp (2011:1) as follows:

$$\text{Revenue} - (\text{Expenses} + \text{Taxes})$$

2.6.1.3 Defining Return on Equity (ROE)

Return on equity sets out the amount of profit that the business generates for each unit of equity invested in the business. “The amount of net income returned as a percentage of shareholders' equity is known as return on equity” (Ahsan, 2012:132). It is a measure of a company's ability to turn equity capital into profits. In this study, ROE is determined by dividing the “net profit by the total owners' equity”, as is consistent in previous studies such as Ahsan (2012:132) and Rosikah et al. (2018:8).

$$\text{ROE} = \frac{\text{Net Income}}{\text{Equity}}$$

2.7 SME INSOLVENCY

This section discusses solvency and what precipitates it. SMEs should pay attention to the solvency metric as it is a vital indicator of financial health. It indicates whether or not the company will be able to continue operating in the future. According to the liability of newness framework, the risk of insolvency is greatest when the company is young and gradually decreases as the company grows. Small and medium businesses that minimise the impact of liability of newness are better able to plan for the future and stay solvent. This study proposes that in order for nascent small and medium enterprises to be solvent, they must be profitable and also make appropriate capital structure decisions. Two phases herald insolvency in small and medium enterprises, as depicted by figure 2.17. Thus, there is the strategy crisis phase, profitability crisis phase and then insolvency (Boata & Gerdes, 2019:4).



Figure 2. 17-Phases of SME Distress

Source: Boata & Gerdes (2019:4).

Levratto (2013: 24), citing Armour (2001), makes six distinctions of insolvency. These are “balance sheet insolvency, cash flow insolvency, economic failure, judicial aspects of default, reorganisation, and liquidation”. Generally, insolvency is the situation that results in a set of collection of failure conditions such as failure to pay back debt and the inability to pay dividends to shareholders (Levratto, 2013: 24). All these are indicators of SME financial distress. According to CPA Australia (2020: 2), the cash flow test of insolvency is indicated by the inability of a firm to pay its commitments when they come due. Unlike in the case of balance sheet insolvency, cash-flow insolvency revolves solely around the question of whether the venture can pay its way through transactions to carry on with its operations. The key point of assets outweighing liabilities only features in balance sheet insolvency. It could be argued that balance sheet insolvency results in cash flow insolvency as a negative net worth will lead to cash flow imbalances. CPA Australia (2020: 3) advances the critical indicators of insolvency as follows:

- The business has a history of ongoing losses from operations
- The venture is facing problems with cash flow
- The venture is unable to recover its debts
- Creditors put the business on strictly cash-on-delivery terms as they are not promptly paid on prior negotiated trade credit terms
- The company is not able to meet tax obligations promptly

- Cheques are dishonoured and returned
- Gearing is extremely high relative to the industry average or past performance
- The firm has defaulted or likely to default on obligations arising from transactions with external stakeholders such as suppliers or financiers
- There are no liquid assets that can be sold to provide a quick turn around
- In difficult situations, judicial proceedings are held, or judgement entered into in relation to outstanding overdue debts.

Businesses are effectively insolvent if they are not able to meet their corporate, financial, and social objectives on a consistent basis (Levrato, 2013: 25). Even though there are varied discriminant factors for insolvency, Levrato (2013: 27) presents the major financial reasons for insolvency as “loss of capital, inability to secure new capital and high leverage”. When firms are highly leveraged, the risk of default escalates (Almansour, 2015: 118), and liabilities may even be more than assets (Powers, 2015: 46). In these instances, the cost of debt rises leading to high financial risks and the possibility of collapse (Boata & Gerdes, 2019:2).

In identifying the three phases that firms go through before collapse, Boata and Gerdes (2019:2) indicate that the first phase is the strategic phase in which business owners and managers are faced with several strategic choices to make. Such decisions could be the selection of funding type. Financial distress will escalate if the strategic crisis persists. The second phase, the profitability crisis stage, is a manifestation of an inappropriate strategy, such as an inappropriate capital structure. According to Boata and Gerdes (2019:5), the profitability crisis reveals itself in the form of diminishing operating profits and contracting cash flows. This acute cash flow shortage leads the company to fall behind on payments and obligations this launching it into the insolvency crisis (Culetera & Bredart, 2016:128). The insolvency crisis may plunge the business into dissolution, liquidation or bankruptcy (Salazar, 2006:1). The next section clarifies the solvency construct.

2.7.1 Clarifying the Solvency Construct

In this study, solvency is measured using three metrics: Solvency Ratio, Working Capital Ratio, and Net Worth. The following section goes over each of the three metrics in depth.

2.7.1.1 Defining Solvency Ratio

A company's ability to service long-term debt is measured using the solvency ratio (Omotor 2021:132). Long-term debt refers to debt that a company does not have to pay for at least one year (Guerard & Schwartz, 2007:187). The solvency ratio compares the company's “total

liabilities to its after-tax income and non-cash depreciation expenses” (Ucal, & Oksay, 2011: 167). This metric is calculated using the formula below, according to studies such as Ucal and Oksay (2011: 167) and Solani (2020:36).

$$\text{Solvency Ratio} = \frac{\text{Net Income} + \text{Depreciation}}{\text{Total Liabilities}}$$

As shown in the formula, the numerator is made up of the entity's cash flow, while the denominator is made up of its liabilities. As a result, the solvency ratio can be safely assumed to determine whether a company's cash flow is sufficient to cover all of its liabilities (Corporate Finance Institute, 2021:1).

2.7.1.2 Defining Working Capital Ratio

The working capital ratio is a financial metric that determines whether a company has enough cash to pay off its debts over a 12-month period (Mohammed & Kim-Soon, 2012:2). The working capital ratio reveals how easy it is for a company to generate revenue from its working capital. It is an indicator of the company's short-term viability (Quesada-Pineda, 2019: 8). It answers the question of whether the company will be able to pay off its debts as they become due and thus continue to exist. It demonstrates how much current liabilities are covered by assets expected to convert to cash in a year or less (Brigham & Houston, 2021:108). A high working capital ratio denotes a large amount of liquidity. Current assets and current liabilities have an impact on liquidity.

Current assets include cash, accounts receivable, and inventory. Current liabilities include accounts payable, accrued wages and taxes, and short-term notes payable to its bank, all of which are due within one year (Brigham & Houston, 2021:108). When a firm is short of its most liquid assets, liquidity becomes low (Sofyan, 2009:301). In such situations, insolvency may creep in as liabilities and illiquid assets exceed quick assets.

Current assets and current liabilities are defined in this study as assets that are converted to cash within a year and liabilities that are due within a year, respectively. The literature such as Hantono (2018:65) and Brigham and Houston (2021:108) support this standard definition. In consonance with the extant literature such as Brigham and Houston (2021:108) and Hantono (2018:65), the working capital ratio metric is calculated as follows:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

2.7.1.3 Net Worth

The value of a company if all of its assets were sold and all of its liabilities were paid in full is referred to as net worth. When total liabilities exceed a reasonable valuation of the company's assets, the company becomes insolvent (Almansour, 2015: 118; Powers, 2015: 46). In that case, net worth is considered negative, and businesses with negative net worth are more likely to fail. As such, to be considered solvent, a company must have more assets than liabilities (Powers, 2015: 46). In this study, net worth is calculated in accordance with the existing literature, such as Köseolu and Almeany (2020: 17) and Brigham and Houston (2021:67):

$\text{Net worth} = \text{Total Assets} - \text{Total Liabilities}$

All non-current assets purchased for long-term use, in addition to current assets that can be effortlessly converted into cash, are included in total assets (Alvi & Ikram, 2015:2). Total liabilities include both noncurrent and current liabilities, which are obligations that are expected to be settled later than a year and within a year, respectively (Subačienė & Villis, 2010:126). The next section discusses the liabilities of newness framework, which indicates that the risk of failure is highest at the time of an enterprise's founding and decreases as it grows older.

2.8 NASCENT SME FAILURE-THE LIABILITY OF NEWNESS FRAMEWORK

This section discusses the liability of newness, which is a framework for early organisational mortality. Arthur Stinchcombe coined the phrase "liability of newness" in 1956 to describe how nascent "businesses are more likely to fail than mature businesses" because they lack legitimacy and are unable to compete successfully against established businesses (Hauge, Strodmskyte & Dai, 2012:4). In this context, nascent enterprises face many obstacles that they must conquer on their path to growth. However, as time passes, systems stabilise, and environmental relations become enduring causing failure rates for businesses in both traditional and creative forms to fall (Stinchcombe, 1965). Hence as depicted in figure 2.18, the hazard rate diminishes as time passes. The hazard rate can also be reduced through various strategic buffers (Kremel, 2017:3). This study contends that such strategic buffers include attaining high profitability and using the right mix of capital.

Nascent businesses, for example, face an uphill task in securing external capital. The barriers to capital have been accepted as an issue of asymmetric information and legitimacy that makes it difficult for nascent firms to convince potential resource suppliers to transact business with them (Nagy & Lohrke, 2010). Additionally, nascent enterprises are thought to have internal

shortcomings which may affect their acquisition and management of capital. For instance, providers of funds recognise nascent businesses as lacking the expertise to effectively handle resources as they do not have operational processes (Lundmark, 2017:69).

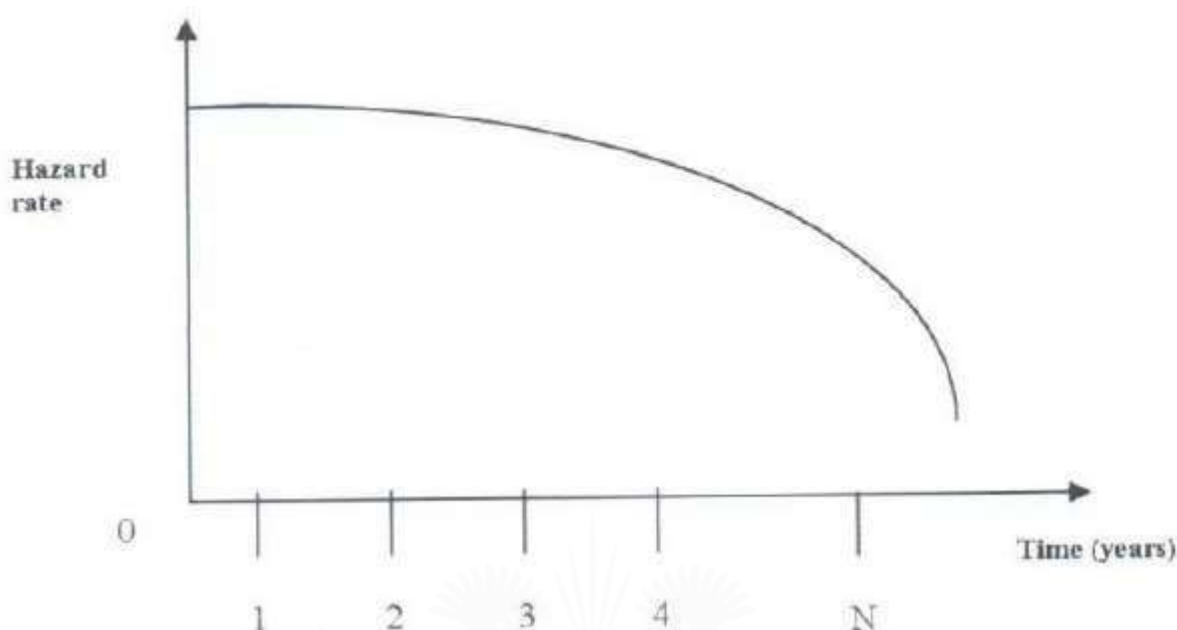


Figure 2. 18-Simplified Representation of the Liability of Newness

Source: Cafferata, Abatecola & Poggesi (2009:11)

All these compounds the liability of newness, which Abatecola et al. (2012: 403) encapsulate thus: nascent businesses possess little chance of survival because they must rely on the collaboration of external stakeholders who are strangers. Such strangers include suppliers of equity and debt capital. It is thus important for nascent businesses to build legitimacy with stakeholders to survive. As buttressed by Stradomskyte, Dai, & Hauge (2012:18), a nascent firm's survival is dependent on stakeholders such as consumers, regulatory authorities, and providers of capital with whom it needs to build legitimacy. In lacking legitimacy, nascent businesses are greatly subjugated to the liability of newness (Karlsson & Williams-Middleton, 2014:2).

Dahl (2012:1), citing Suchman (1995: 574) indicates that legitimacy is socially constructed in that it represents the symmetry between the nascent entity seeking legitimacy and the shared values of the social group that stand to confer such legitimacy. Suchman (1995:574) identifies three types of legitimacy, which are "pragmatic legitimacy, moral legitimacy, and cognitive legitimacy". Pragmatic legitimacy refers to the acceptability provided to an entity by an audience due to the broad consequences of the organisation's actions for the audience. In such situations, the audience may lend support to the organisation on the basis of their perception of

how it serves their interests. Moral legitimacy, on the other hand, depends on how the organisation is judged on moral grounds as to whether its actions are carried out for the benefit of the public good or not. Cognitive legitimacy is obtained by the clearness of the activities of the organisation and the availability of cultural and social variables that make the behaviour of the organisation comprehensible to the appraising audience or group.

Rutherford et al. (2018) built on studies such as Suchman (1995) and conceptualised socio-political legitimacy in new ventures and how they overcome the liability of newness and increase financial performance. The study recognises socio-political legitimacy as regulatory legitimacy, normative legitimacy and cognitive legitimacy. Following the rules, policies, and standards established by existing power institutions, such as governments, credentialing organizations, or influential professional associations, is referred to as regulatory legitimacy.

Normative legitimacy is based on the idea that the company meets agreed-upon standards and demonstrates the desired values of the general social norms applicable to the venture. Rutherford et al. (2018:916), like Suchman (1995:574), define cognitive legitimacy as the belief that an organization is adhering to widely held and industry-prescribed assumptions. Following the rules, policies, and standards established by existing power institutions, such as governments, credentialing organizations, or influential professional associations, is referred to as regulatory legitimacy.

The idea behind normative legitimacy is that the company meets agreed-upon standards and demonstrates the desired values of the general social norms that apply to the venture. As was concluded by Rutherford et al. (2018:929), attainment of legitimacy increased the possibility that a nascent SME will attain top performer status regarding revenue. Thus, by gaining legitimacy, stakeholders now recognise the nascent entity as capable of developing and delivering on their mandate as anticipated.

Nascent businesses could gain legitimacy by using legitimacy strategies as espoused by Karlsson and Williams-Middleton (2014:3). Nascent firms can apply the conformity strategy by taking steps to comply and cope with institutional pressures. They could also use the selection method, which requires strategies to reduce the extent to which conformity is required either by selecting partial compliance or by choosing an industry that meets institutional pressures. The last approach, according to Karlsson and Williams-Middleton (2014:4), is the manipulation strategy which revolves around an intentional response by the nascent organisation to alter the environment deliberately.

This study which is about how profitability, and the use of a suitable capital structure can lessen the liability of newness applies the selection legitimacy technique. As explained by Karlsson and Williams-Middleton (2014:4), the method entails adhering to institutional demands while exerting agency on which ones to adapt. For example, by selecting which consumer group to target or which sector to operate in, a nascent business would have used a selection strategy to mitigate the liability of newness (Karlsson & Williams-Middleton, 2014:4). This paper posits that striving for profitability and making sound financing decisions are good selection strategies that nascent SMEs can use to minimise the liability of newness. Companies that are unable to generate self-sustaining levels of organisational capacity will fail, according to the resource-based perspective of the firm (Thornhill & Amit, 2003: v). The key challenge for new businesses, as propounded in this study, is to establish profitability and employ an appropriate capital mix to progress beyond nascency. The next section is the conceptual framework, which is contained within the theoretical framework and serves to clarify how the concepts interact to inform the liability of newness problem.

2.9 CONCEPTUAL MODEL

It is critical to develop a conceptual framework in order to achieve the study's objectives in its entirety. This study is guided by the conceptual framework, which is represented in diagrams. The model depicted in Figure 2.20 illustrates the underlying relationships between the constructs, based on the established theoretical link between profitability, capital structure, and solvency derived from a thorough review of the literature. Conceptual frameworks reflect the thinking of the entire research process by defining the constructs or variables of the research topic and their relationships as shown by arrows (Adom, Hussein & Agyem 2018:440). The predictor variables in this study are profitability and capital structure. Profitability is measured by return on assets, return on equity, and net profit after taxes. To evaluate capital structure, the debt-to-equity ratio, debt ratio, and equity ratio are all used. The solvency ratio, working capital ratio, and net worth all measure solvency as an independent variable. The study's main point is that profitability and capital structure have an impact on the solvency of new small and medium businesses.

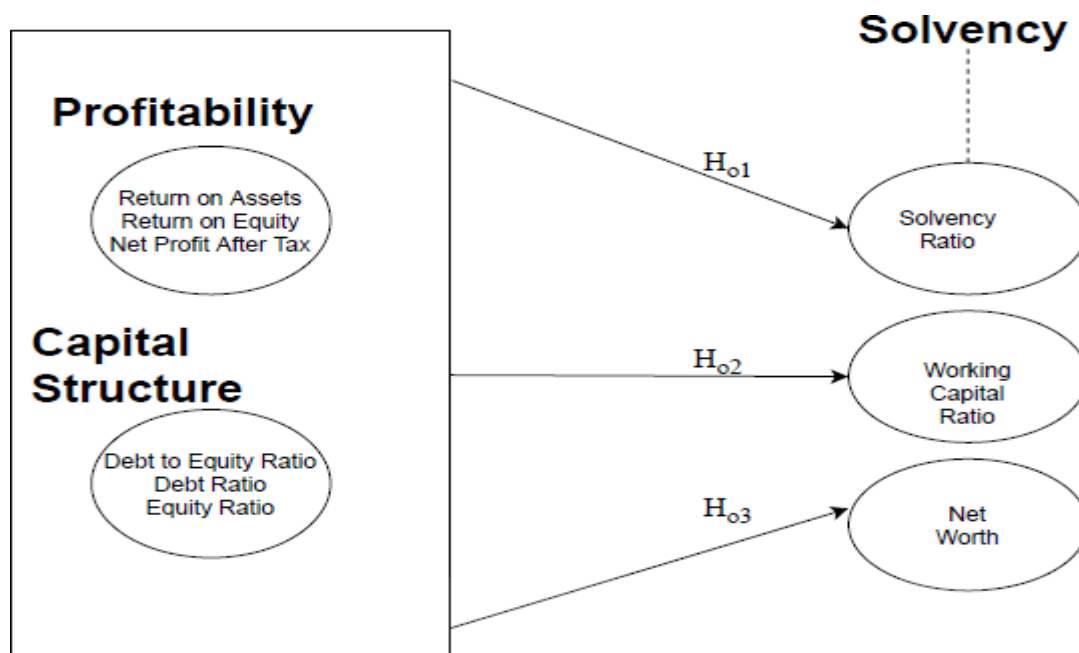


Figure 2. 19- Conceptual Framework

The formulation of research hypotheses follows the conceptual framework, and it is covered in the next section.

2.10 RESEARCH HYPOTHESES

Before developing the hypotheses, a thorough review of previous studies on profitability, capital structure, and solvency was conducted. The development of hypotheses and the conceptual framework were aided by a review of the literature. Even though nascent SMEs face significant liability of newness, and many fail in their early stages, they can engage in techniques or approaches to help reduce the liability of newness (Rutherford, Mazzei, Oswald, & Jones-Farmer., 2016: 912). For example, by utilising the appropriate capital mix, emerging SMEs can improve liquidity and solvency (Dhankar, 2019: 198). As a result, the financing strategy may affect the venture's chances of survival and success (Abor, 2017: 21). Furthermore, productive, and financially strong organisations are negatively associated with failure (Park & Lee, 2019: 51). Therefore, enterprises with high profitability can avoid the liability of newness. Insolvency is preceded by a low level of profitability (Levratto, 2013: 2). Levratto (2013: 5) further notes that businesses default when they do not generate profits and their capital does not generate value. As such, profitability and capital structure are imperative to the survival of nascent SMEs.

The researcher, therefore, argues in the context of nascent SMEs that high profitability and an appropriate capital structure are required to reduce the liability of newness. The researcher

further argues that each of the elements of profitability and capital structure is a significant predictor of the three solvency measures used in this study. However, hypotheses are typically stated in their null forms (Zikmund, 2003: 499). In this regard, only the null hypotheses applicable to the study were tested. Based on the discussions of the literature on profitability, capital structure and solvency, this study postulates the following hypotheses in their null forms.

H₀₁: Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(a)}: Return on Equity is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(b)}: Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(c)}: Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(d)}: Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(e)}: Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(f)}: Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H₀₂: Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02(a)}: Return on Equity is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02(b)}: Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02(c)}: Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02 (d)}: Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02 (e)}: Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02 (f)}: Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H₀₃: Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(a)}: Return on Equity is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(b)}: Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(c)}: Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(d)}: Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(e)}: Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(f)}: Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

2.11 CHAPTER SUMMARY

The chapter's goal was to identify the most important literature for the study. It began with a review of the capital structure literature. It covered capital structure theories like the Modigliani and Miller theorem, trade-off theory, pecking order theory, signalling theory and the life cycle theory. Numerous debt and equity financing sources are also identified. Each type of funding has its own set of benefits and drawbacks. When funds are mixed correctly, they produce higher net profits and more liquidity (Dhankar, 2019:198). As a result, the type of funding a company receives can either help or hurt its chances of survival (Abor, 2017:21).

The chapter also discussed the importance of capital and how it can be obtained by building a strong team, as well as how it is influenced by factors such as industry, ownership structure,

size, and age. Small and medium businesses are widely acknowledged to face funding constraints as a result of information asymmetry. As a result, any factor that reduces information asymmetry may result in capital access.

A review of the literature on profitability, solvency, and newness liability was also conducted, with a focus on the general characteristics of small and medium businesses. Lastly, the conceptual model was developed, and the main hypotheses were formulated. The next chapter is an overview of SME development in Ghana.



CHAPTER 3

OVERVIEW OF SME DEVELOPMENT IN GHANA

This chapter establishes the overall context for the study by highlighting the importance of macroeconomic environments to the survival of small businesses. The macroeconomic environment of Ghana is presented in order to set the context within which small and medium enterprises operate repetition. Generally, when indices such as gross domestic product, inflation and foreign exchange are heading in the right direction, small businesses thrive. This is consistent with Oum, Narjoko, and Harvie (2014: 16), who contend that the macroeconomic environment influences entrepreneurial development. The chapter begins with a section that describes the nature of SMEs, then discusses small business development and characteristics of entrepreneurs and subsequently the SME sector in Ghana.

3.1 UNDERSTANDING SMALL AND MEDIUM ENTERPRISES

Around the world, small and medium businesses are defined differently. Mostly, the country in which an SME operates determines whether it is small or medium based on certain characterisations. Annual sales, employee count, asset value, and any combination of these are examples of the definition criteria.

3.1.1 Nature of Small and Medium Enterprises

This section defines small and medium enterprises in a variety of countries, including Ghana, which provides the study's sample. As previously stated, the definition of small and medium businesses is based on a number of characteristics that vary by jurisdiction. Hence in the European Union, for example, “micro, small and medium enterprises” are recognised as organisations with revenues below “\$2.35 million, \$11.75 million, and \$58.78 million”, respectively (Durst & Edvardsson, 2012: 880). In terms of employee count, micro, small and medium enterprises in the European Union are defined as organisations that have less than 10, 49 and 250 employees, respectively (Durst & Edvardsson, 2012: 880). The World Bank defines a small enterprise as an organisation that has less than 50 employees and total revenues and assets not exceeding \$3 million each. Similarly, a medium-sized firm is described by the same institution as one that has less than 300 workers and has total assets and an annual turnover of less than \$15 million for each criterion (Fuseini, 2015:11). In South Africa, medium enterprises are deemed to have between 120 and 200 employees and \$ 1.33 million to \$ 3.33 million, depending on the sector within which they operate. Similarly, small enterprises are recognised

as businesses that have less than 50 full-time employees and have an annual turnover of up to \$ 1.66 million depending on their industry (Fatoki, 2011:193).

In Ghana, small and medium enterprises are defined differently by different government agencies. The nation's statistical service recognises businesses that have between 1 to 5 employees as micro, 6 to 30 employees as small and 31 to 100 employees as medium (Ghana statistical service, 2016). The National Board for Small Scale Industries (NBSSI) on the other hand, applies both fixed assets and the number of employees as parameters. The NBSSI classifies small enterprises as businesses that have up to 29 employees and up to the cedi equivalent of \$100,000 in fixed assets. Medium-sized enterprises employ between 30 and 99 staff and have fixed assets in the range of \$100,000 and \$1,000,000. The next section discusses entrepreneurial competencies that can aid SME success.

3.1.2 Small Business Development and Characteristics of Entrepreneurs

The development of small businesses is often hinged on the entrepreneurial competencies and experiences of small business founders (Kyndt & Baert, 2015: 16). According to Arthur and Hisrich (2011:2), four aspects are required for start-ups to thrive: a supportive infrastructure, an idea with unique value propositions, funding to get started and grow, and an entrepreneur to work toward making the enterprise a reality. Thus the skill sets of the entrepreneur is vital to the success or failure of nascent enterprises. As acknowledged by Kuratko (2014:23), the entrepreneur is the one that sees to the efficient organisation and management of the business. According to Kyndt and Baert, (2015:18), successful small and medium enterprises are founded by entrepreneurs that are able to take a risk and have the ability to plan. Such entrepreneurs are also able to identify and seize opportunities and have the ability to swiftly build normative legitimacy for their fledgeling enterprises as espoused by Rutherford, Mazzei, Oswald and Jones-Farmer (2018:911).

In the liability of newness context, the ability of entrepreneurs to create and manage relationships with both external and internal stakeholders is held as essential in establishing legitimacy for nascent enterprises. In his 1965 seminal work on the liability of newness, Arthur Stinchcombe indicated that the most effective way to alleviate the liability of newness is for the young firm to receive a favourable judgment from stakeholders. Thus, business owners should have the skill set to manage the delicate relationships that the enterprise have with clients and suppliers, for example, to gain a competitive advantage. Competitive advantage would ensure the sustainability and success of the business (Tehseen & Ramayah, 2015:50). Moreover, close relationships between SMEs and their clients afford them access to the latest

customer preferences, which will ensure sustained demand. But the ability to establish normative legitimacy is not the only key competency requirement. As has been defined by Arafeh (2016:2), entrepreneurial competency relates to the ability of business founders to use detailed knowledge and skills to adequately perform functions that will see to the growth of the business. Hence the aggregate of experience of business owners matters in the venture performance matrix (Rydehell, Isaksson & Löfsten, 2019: 1). Three significant clusters of entrepreneurial competencies and attitudes that can positively shape small businesses were published by the United Nations Conference on Trade and Development, UNCTAD in 2015 (Arafeh, 2016:5). The competencies are grouped under Achievement, Planning and Power clusters. Figure 3.31 depicts the Personal Entrepreneurial Competencies. The UNCTAD Personal Entrepreneurial Competencies (PECs) are published in around thirty-four countries, including Ghana, by the EMPRETEC Foundation, which is a United Nations designed entrepreneurial education program. Below are the competencies as described by UNCTAD.

3.1.2.1 Achievement Cluster

This cluster is made up of five key competencies. “These are opportunity-seeking and initiative, persistence, fulfilling commitment, demand for quality and efficiency, and taking calculated risks” (Arafeh, 2016:11). According to UNCTAD (2015:8), the opportunity-seeking and initiative competency addresses the need for entrepreneurs to have the knack for transforming opportunities into profitable business situations. Entrepreneurs that have this competency do things before circumstances allow or compel them to do. The persistence competency is related to the need for entrepreneurs to persevere against barriers and be able to act in the face of challenges.

Successful entrepreneurs are those who are able to fulfil commitments and make an exceptional personal effort to get a job done. The competency of demanding quality and efficiency addresses the extent to which entrepreneurs push for quality to be achieved faster and cheaper. Small and medium enterprises that survive and thrive have founders that take a calculated risk. This key competency is central to entrepreneurship as it involves evaluating alternatives, taking actions to mitigate risks and putting in measures to control outcomes (UNCTAD, 2015:18).

3.1.2.2 Planning Cluster

As listed by UNCTAD (2015:12), the planning cluster are “goal-seeking, information-seeking and systematic planning and monitoring”. Goal setting is an essential competency as the rest

of the entrepreneurial competencies are based on it (UNCTAD, 2015:13). Hence small and medium enterprises that survive are the ones that have founders that set meaningful, challenging and measurable goals and objectives. Information-seeking is a key entrepreneurial competency as successful entrepreneurs detest uncertainty. Thriving small businesses spend a lot of resources assembling information about key external stakeholders. Small firms need to conduct their operations in an "orderly logical way" (UNCTAD, 2015:10). By effective planning and monitoring, SMEs that become successful, thriving businesses maintain proper financial records and make decisions based on the records.

3.1.2.3 Power Cluster

According to UNCTAD (2015:38), two key competencies make up this cluster. These are “persuasion and networking and independence and self-confidence”. Successful entrepreneurs demonstrate ability by consciously persuading stakeholders to get a job done. They are able to take steps not only to establish a network of business contacts but also to retain them (UNCTAD, 2015:10). The independence and self-confidence key competency indicates the ability of entrepreneurs to be autonomous and responsible for the enterprise's success or failure.

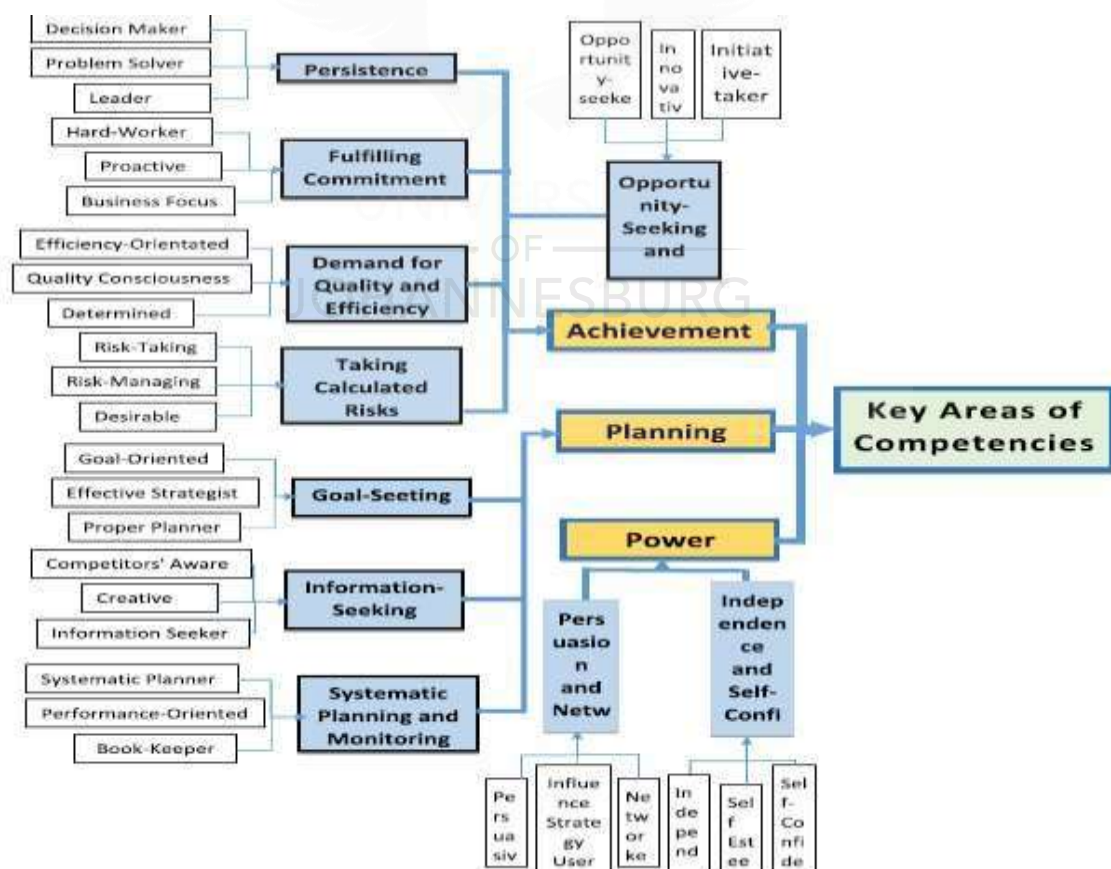


Figure 3. 1- UNCTAD Personal Entrepreneurial Competencies

Source: Arafeh (2016:6)

UNCTAD's classification of competencies is not the only entrepreneurial competency in the literature. Entrepreneurial competencies are generally divided into two categories: “the entrepreneur's personality trait profile and his or her capability profile” (Chell, 2013; Tan & Tan, 2012; Thongpoon, Noor, Ahmad, & Sofri 2012). The UNCTAD cluster adequately covers both the personality trait and capability approaches. Entrepreneurial competencies need to be understood if the liability of newness of nascent small and medium enterprises is to be mitigated. Abatecola and Uli (2016:1093) demonstrated that the experience of the founding team greatly benefits start-ups in their study of the role of entrepreneurial competencies on the liability of newness and infant survival. The study further concluded that entrepreneurs' technological and industrial experiences influenced the performance of new SMEs (Abatecola & Uli, 2016: 1093). The role of entrepreneurial competency in venture success or failure is also buttressed by Oduro-Nyarko and Hervie (2019:264). In a study that focused on entrepreneurial competencies that characterise the success of female-led enterprises in Ghana, the vital role of entrepreneurial competency in enhancing SME survival is established. It is worthy of note that entrepreneurial competency has also been determined to have a direct association with financial performance (Nieuwoudt, Henning & Jordaan 2017:1). Entrepreneurs that have high personal entrepreneurial competencies will be able to formulate strategies that could minimise the liability of newness and attract legitimacy from external stakeholders for their businesses. The next section discusses the SME sector in Ghana, which is where this study is situated.

3.2 THE SME SECTOR IN GHANA- IMPORTANCE AND CHALLENGES

To understand the impact of capital structure and profitability on nascent small and medium enterprises (SMEs) in Ghana, a thorough understanding of the macroeconomic environment in which these SMEs operate is required. Small and medium-sized enterprises (SMEs) are the primary drivers of economic and industrial growth in Ghana, as they are in many other countries. To sustain economic growth cycles, the country relies on the dynamism and imagination of small businesses. According to Fuseini (2015: 13), 90 per cent of registered companies in Ghana are small and medium enterprises.

Small and medium enterprises (SMEs) in Ghana are such a vibrant sector that they provide 85 per cent of manufacturing jobs and account for roughly 70 per cent of the country's GDP (Abor & Quartey, 2010: 218); as a result, SMEs are development catalysts. The importance of small and medium businesses extends beyond job creation and contributions to the GDP. Small and medium enterprises in Ghana stimulate the development of local businesses and engineer broad

economic development across most regions and sectors of the economy, according to Oppong, Owiredu, and Churchill (2014: 85), citing Odeh (2005).

However, there are structural challenges that impede the collective growth of the SME sector in Ghana. Hence SMEs in Ghana have not done as well as expected in their contribution to economic growth (Oppong et al., 2014: 85). SMEs in Ghana have been hindered by a lack of adequate finance, managerial inadequacies, lack of technology and high-handed regulatory regimes (Abor & Quartey, 2010: 224). A lack of executive aptitude may result in poor financing decisions, exacerbating the liability of newness and possibly resulting in nascent SME failure.

The difficulty in attaining adequate financing from commercial banks is a consequence of imperfections of financial institutions and managerial challenges prevalent in small businesses (Quartey, Turkson, Abor & Iddrissu, 2017: 18). Banks contribute about 90 per cent of all credit for small and medium companies. Still, financial institutions prefer to provide financing to large firms as SMEs are deemed risky (Quartey et al. 2017: 19). Commercial banks mitigate the risk of lending to risky clients by instituting a loan covenant policy such as demand for collateral security. However, 90 per cent of small companies are denied financing because of their incapacity to raise the required collateral (Quartey et al. 2017: 20).

As a result, the proportion of SME loans in a bank's total loan portfolio in Sub-Saharan Africa varies from 5 per cent to 20 per cent (Berg & Fuchs, 2013: 1). Factors such as the economy's structure and scale, the level of government borrowing, the degree of innovation required by international entry participants to the financial system, and the state of the financial system, in general, exacerbate the inability to provide collateral (Berg & Fuchs, 2013:1). All these factors conspire to ensure that SMEs in Ghana, just as other sub-Saharan African nations are credit-constrained relative to large firms. Additionally, small enterprises are not so positioned to access capital market instruments.

Information and communication technology (ICT) is a critical tool for the expansion of small and medium businesses (Esposito, 2018:124). Notwithstanding this fact, most SMEs are not well equipped in ICT (Munyanyi & Pooe, 2019:34). Ghana is ranked 109th on the International Telecommunication Union (ITU) growth index for ICT (International Trade Center, 2016:1). The sparing use by small and medium enterprises of ICT does not inure to the development of entrepreneurial activity.

Regulatory constraints to SME development in Ghana are quite prominent, and it ranges from bureaucracy, dysfunctional policies, unsatisfactory trade laws, rigid monetary and credit

blueprint, and corruption in public offices (Nyarko & Oduro, 2018:1). In essence, the SME sector's challenges are preventing small and medium businesses from fully assuming their role as the backbone of the Ghanaian economy. It is worthy of note that in the World Bank (2020:2) “ease of doing business report”, Ghana ranked 118 out of 190 countries. It scored a “*Doing Business Score*” of 60.0. According to the World Bank (2020:2), the ranking integrated the process of business incorporation, the process of getting a building permit, the process of getting connected to electricity, access to credit, taxes, and procedures to resolve insolvency.

The World Bank (2020) report made two notable points about the ease or difficulty of doing business in Ghana. In terms of electricity connection for nascent SMEs, the procedure has improved in recent years, and there is the availability of equipment. However, taxes have become more complicated and more costly. “Recoverable value-added tax has been converted into two new levies, which are the Ghana Education Trust Fund and the National Health Insurance Levies” (World Bank, 2020:101). These two new levies are an additional cost to small businesses. The effect of the regulatory framework on SME growth in Ghana was analysed by Nyarko and Oduro (2018). The study found that governmental actions such as bureaucracy, public corruption and excessive taxes were negatively affecting the SME sector in Ghana (Nyarko & Oduro, 2018:1).

Hence a more favourable institutional environment is analogous to high-quality entrepreneurial activities. Generally, the aggregate course of actions that are needed before an entrepreneur can start a business is negatively correlated to entrepreneurial activity in developing countries (Urbano, Audretsch, Aparicio & Noguera, 2019: 23). Total entrepreneurial activity (TEA) also affects economic development (Urbano et al. 2019:23). For economic growth, national governments must appreciate the interplay between regulatory constraints, entrepreneurial activity and economic development. Having provided a detailed discussion of the SME sector in Ghana, the next sections underline the macroeconomic outlook of Ghana.

3.3 MACRO-ECONOMIC OUTLOOK OF GHANA

In this study, the newness liability of nascent small and medium enterprises in Ghana is investigated. As a result, it is critical to discuss Ghana's economic prospects in order to gain a better understanding of the SMEs' operating environment. Ghana is located on the Atlantic Ocean and shares borders with Togo, Ivory Coast, and Burkina Faso. In 2018, the country was estimated to have a population of about 29.6 million. It enjoys a strong capital for its multi-

party democracy, independent courts, freedom of press and freedom of speech (World Bank, 2019: 1).

In the West African region, Ghana is recognised as the second-largest economy behind Nigeria, representing 10.3 per cent of the sub-regions overall GDP (Alagidede, Baah-Boateng & Nketia-Amponsah, 2013:5). Even though Agriculture remains the foundation of the economy, its contribution to GDP has been declining (World Bank, 2018:1). This is depicted in figure 3.2. Macroeconomic variables affect business performance. As a result, firms must become conscious of economic elements to gauge their impact on the success or otherwise of the business (Issah & Antwi, 2017:2). Major macroeconomic items include the “gross domestic product (GDP), inflation rate, interest rate and foreign currency exchange rate” (Oduro-Asamoah, Baiden & Nani, 2019:2).

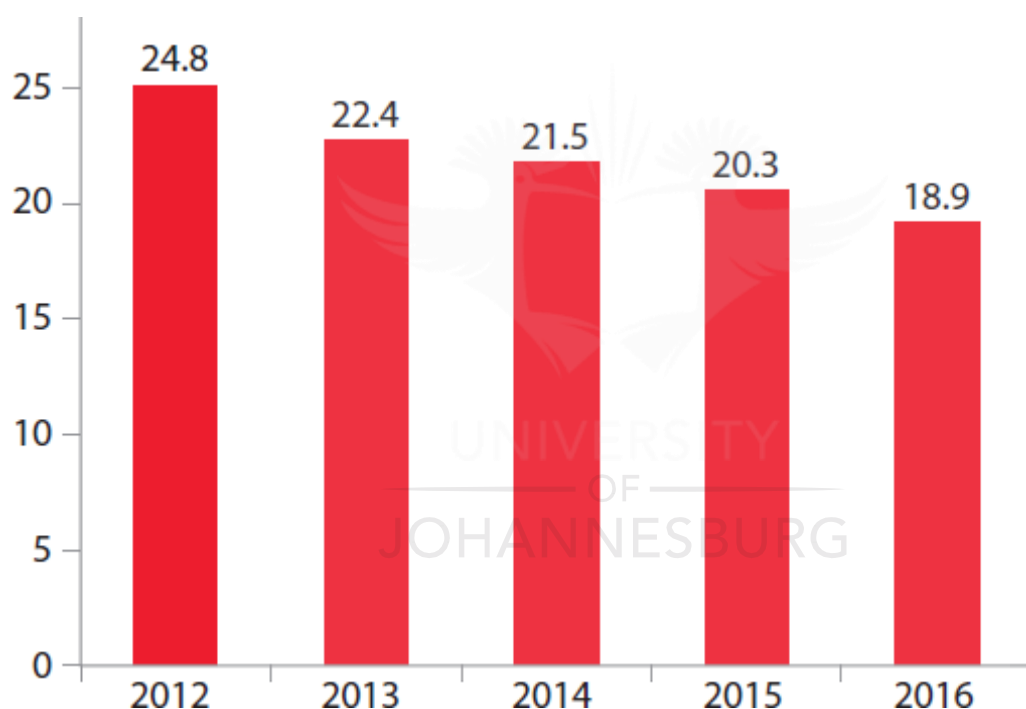


Figure 3. 2- Agriculture Contribution to Ghana's GDP (%): 2012-2016

World Bank (2018:1)

3.3.1 Gross Domestic Product in Ghana and its Implication for Small Businesses

Ghana's rebased annual gross domestic product grew by 6.5 per cent in 2019, 0.2 percentage points increase compared to the 6.3 per cent growth recorded in 2018 (Ghana Statistical Service, 2020:3). The growth was attributed to the services sector, which contributed 46.3 per cent in 2019 compared to 47.2 per cent in 2018. The manufacturing industry contributed 2.4 per cent to the GDP annual growth rate in 2019. The key driver of the GDP growth rate, however, was the mining and quarrying sector which recorded a growth rate of 12.6 per cent.

As seen in Table 2.1, the agriculture sector in 2019 grew by 4.6 per cent compared to 4.8 per cent in 2018. Its share of GDP was down from 19.7 per cent in 2018 to 18.5 per cent in 2019 (Ghana Statistical Service, 2020: 3). This decline carries the observation from the World Bank (2018:1) that over the years, agriculture's contribution to GDP has decreased.

Table 3. 1-Growth Rates of GDP (Per cent)

	2014	2015	2016	2017	2018	2019
AGRICULTURE	0.9	2.3	2.9	6.1	4.8	4.6
INDUSTRY	1.1	1.1	4.3	15.7	10.6	6.4
SERVICES	5.4	3.0	2.8	3.3	2.7	7.6
GDP AT BASIC	2.9	2.2	3.4	8.4	6.2	6.5
PRICES						
NET INDIRECT	3.5	2.6	4.8	4.6	7.5	6.1
TAXES						
GDP IN	2.9	2.2	3.4	8.1	6.3	6.5
PURCHASES'						
VALUE						

Source: Ghana Statistical Service (2020: 9).

Ghana's GDP growth rate of 6.5 per cent compares favourably to competing nations. In its Monetary Policy Report, the Bank of Ghana (2020:4) indicates that global growth has moderated from 3.6 per cent in 2018 to 2.9 per cent in 2019, as seen in figure 3.3. The growth rate of sub-Sahara Africa in 2019 was 3.3 per cent as a result of production disruptions in oil-exporting countries and declining commodity prices (Bank of Ghana, 2020:5). Even though GDP does not measure non-market activity, it is nevertheless an essential measure of the overall state of an economy (Faumeni, 2017:1). It is the market value of the economic activity that is generated in a country.

According to Fuerlinger, Fandl and Funke (2015:1), new venture success is profoundly impacted by something much more significant than the enterprise itself: the world around it. Liñán, Jaén, and Ortega (2015:53) citing Pinnillos and Reyes (2011), indicate that at certain levels of GDP per capita, such as \$7,000, income levels increase such that business start-up rates are positively affected. A relatively high rate of economic growth will entail high consumer demand and additional opportunities for nascent entrepreneurs. Even though high real wages as a result of high GDP translate to a high opportunity cost for self-employment,

Liñán et al. (2015: 65) found that strong economic growth leads to high entrepreneurship activity. Hence the comparatively high GDP growth rate in Ghana is a recipe for small business success.

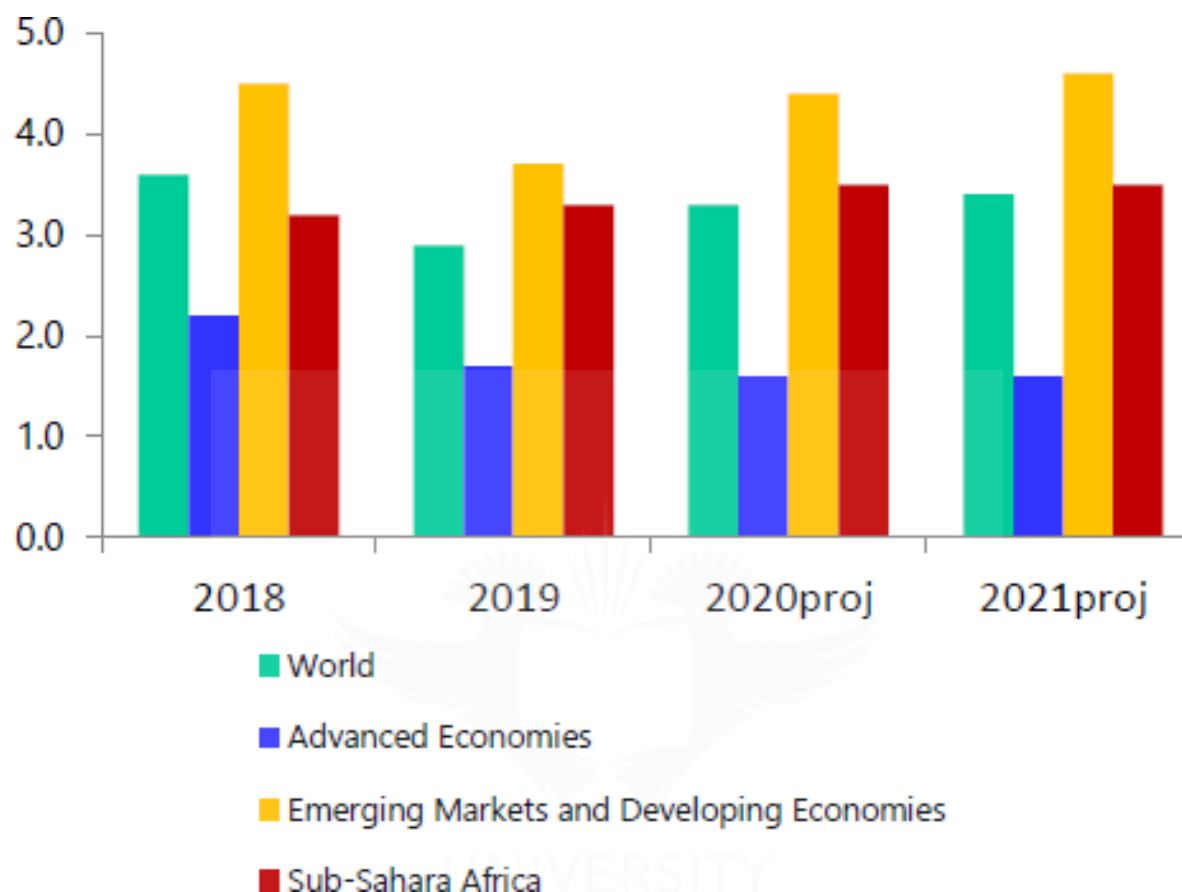


Figure 3. 19- World Economic Outlook, January 2020 Update

Source: Bank of Ghana (2020:4)

3.3.2 Inflation in Ghana and its Implication for Small Businesses

Inflation reflects an increase in the general prices of goods and services in a country over a period of time. When inflation increases, every currency unit buys fewer products and services as the overall price level increases (Ali & Ibrahim, 2018: 4750). As the purchasing power of money declines, entrepreneurial activity may be impacted. The reason is that inflation influences the firm's net earnings by adjusting the relationship between revenue and the cost of goods sold (Ali & Ibrahim, 2018: 4750). In Ghana, since June 2018, headline inflation has stayed in the single digits (Bank of Ghana, 2020: 16). Inflation jumped from 7.7 per cent in October 2019 to 8.2 per cent in November 2019. However, in December 2019, it went down

to 7.9 per cent as a result of lower food and non-alcoholic beverage prices, as shown in figure 2.23 (Bank of Ghana, 2020:16).

The drivers of entrepreneurship are manifold, but Arin, Huang, Minniti, Nandialath and Reich (2015: 609) used a Bayesian approach to show that inflation is one of the macro-economic variables that affect aggregate entrepreneurship. Arin et al. (2015: 626) argue that inflation and especially its volatility deter entrepreneurship since it makes the business environment unstable and makes it difficult for business owners to recover their investments. Hence, inflation is inversely associated with the total entrepreneurial activity of a country. Inflation has also been shown to be negatively related to economic growth. According to Khan, Senhadji and Smith (2001), as cited by Arawatari, Hori and Mino (2018:83), at threshold inflation levels of 7 to 11 per cent, economic output is retarded in developing countries. When there is economic retardation, entrepreneurial activity declines.

However, inflation is not adversely linked to all forms of entrepreneurship. According to Amorós, Borraz and Veiga (2016: 199), inflation is only negatively related to opportunity entrepreneurship. The rationale is that necessity entrepreneurs will have to start a business even when conditions such as corruption and macroeconomic situations are not on the right trajectory. The study distinguishes between opportunity-based entrepreneurship and necessity-based entrepreneurship. Opportunity-based entrepreneurs start a business to exploit a business opportunity. Necessity entrepreneurs, on the other hand, commence a business for push motives. These findings may be mostly accurate in developing countries such as Ghana, where unemployment figures are high. As acknowledged by Amorós et al. (2016: 199), the level of economic development dictates the relationship between inflation and national level entrepreneurial development.

In all of this, countries that seek economic development should engender opportunity entrepreneurship. This is because many studies such as Aparicio, Urbano and Audretsch (2016:45) identify opportunity entrepreneurship as the central apparatus of entrepreneurship that drives economic growth. As such, the trajectory of inflation is essential to breed opportunity entrepreneurship and encourage economic growth. Currently, in Ghana, as shown in figure 3.4, headline inflation is on the decline. This is a good indication that in Ghana, small businesses can thrive within a conducive entrepreneurial ecosystem. According to Ali and Ibrahim (2018: 4766), inflation and profitability have a positive relationship. As a result, small businesses rely on inflation to stay afloat.

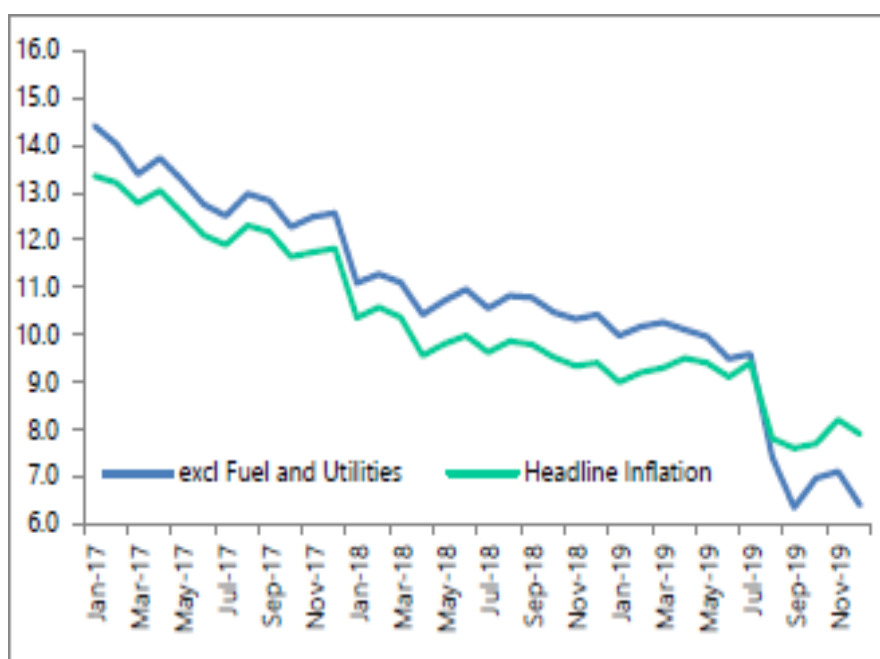


Figure 3. 20-Core inflation (Percent)

Source: Bank of Ghana (2020:16)

3.3.3 Foreign Currency Exchange Rate and Its Implication for Small Businesses in Ghana

Recent Studies such as Alagidede and Ibrahim (2016:169) have shown that there is a high exchange rate volatility in Ghana. According to Ofori, Obeng and Armah (2018:3), citing Alagidede and Ibrahim (2017), Ghana redenominated its currency in 2007. At the time, \$ 1 was traded for 93 pesewas which is seven pesewas less than 1 GH¢. Subsequently, the cedi continually depreciated. The dollar-cedi exchange rate at the end of September 2014, for example, was GH¢3.20, indicating a 44.65 per cent depreciation (Ofori et al. 2018:3).

Depreciation has been more moderate in recent years. The cedi has remained relatively stable in the last two years indicating stability in the macroeconomic environment. As is depicted in figure 3.5, Ghana cedi depreciated by 8.7 per cent by August 2019 from a 4.5 per cent depreciation in August 2018 against the U.S. dollar. Small and medium enterprises in Ghana predominantly import raw materials and finished goods. Depreciation of the local currency will hence make the cost of doing business in Ghana soar.

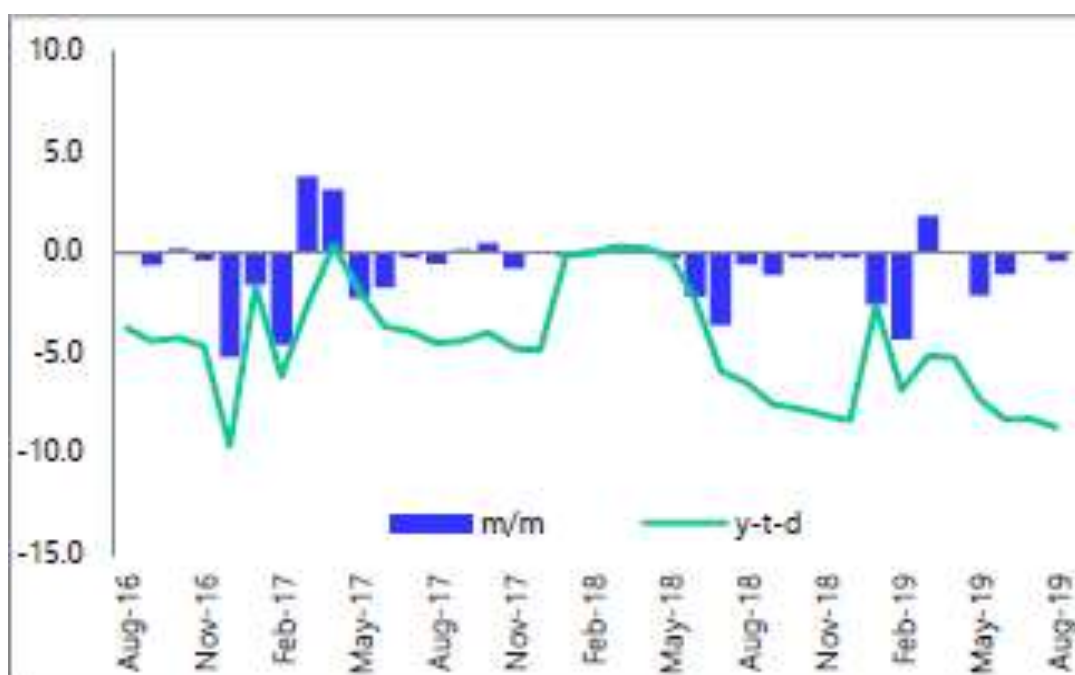


Figure 3. 21-Month on Month Cedi Depreciation

Source: Bank of Ghana (2019:10).

After discussing Ghana's macroeconomic situation, the following section discusses credit availability and lending rates in Ghana. This is especially significant given that access to funding is frequently cited as a major impediment to SME growth.

3.4 ACCESS TO CREDIT AND LENDING RATES IN GHANA

For entrepreneurial success, small and medium enterprises need to have access to credit. According to Fracassi, Garmaise, Kogan and Natividad (2013:1), the creditworthiness of nascent SMEs has a statistically impactful effect on their future economic position. However, obtaining a loan is difficult for start-ups as most financial institutions engage in transaction-based banking and look for hard information before making lending decisions. Hoepner, Oikonomou, Scholtens and Schröder (2016: 168) observe that banks assess the credit quality of institutional loan applicants by basing their assessment on verifiable objective data of financial nature such as profitability and current operating leverage.

The cost of providing details about nascent SMEs makes it challenging to finance them profitably. As a result of information asymmetry, nascent SMEs with significant potential go unfunded as financial institutions are not able to do an adequate assessment (Kerr & Nanda, 2009:5). The considerable cost of screening SMEs and the inherent risk in the SME credit market lead to high-interest rates (Avortri, Bunyaminu & Wereko: 2013:389). Hence a significant feature in debt transactions is the cost of debt.

Fouejieu, Ndoye and Sydorenko (2020:5) indicate that an economic fundamental that avoids crowding out SMEs, financial sector soundness, a competitive banking system and an open economy are essential factors that are needed to boost the chances of SMEs securing capital. In Ghana, after a peak of 22.1 per cent in March 2019, credit to the private sector grew marginally as credit conditions were slightly tightened (Bank of Ghana, 2019:13). As seen in figure 3.6, annual credit growth for the private sector in August 2019 was 13.4 per cent instead of 15.8 per cent in 2018. This means private sector lending grew by 5.2 per cent within the period (Bank of Ghana, 2019:13). The private sector lending was higher due to a well-capitalised banking sector (World Bank, 2020: 1).

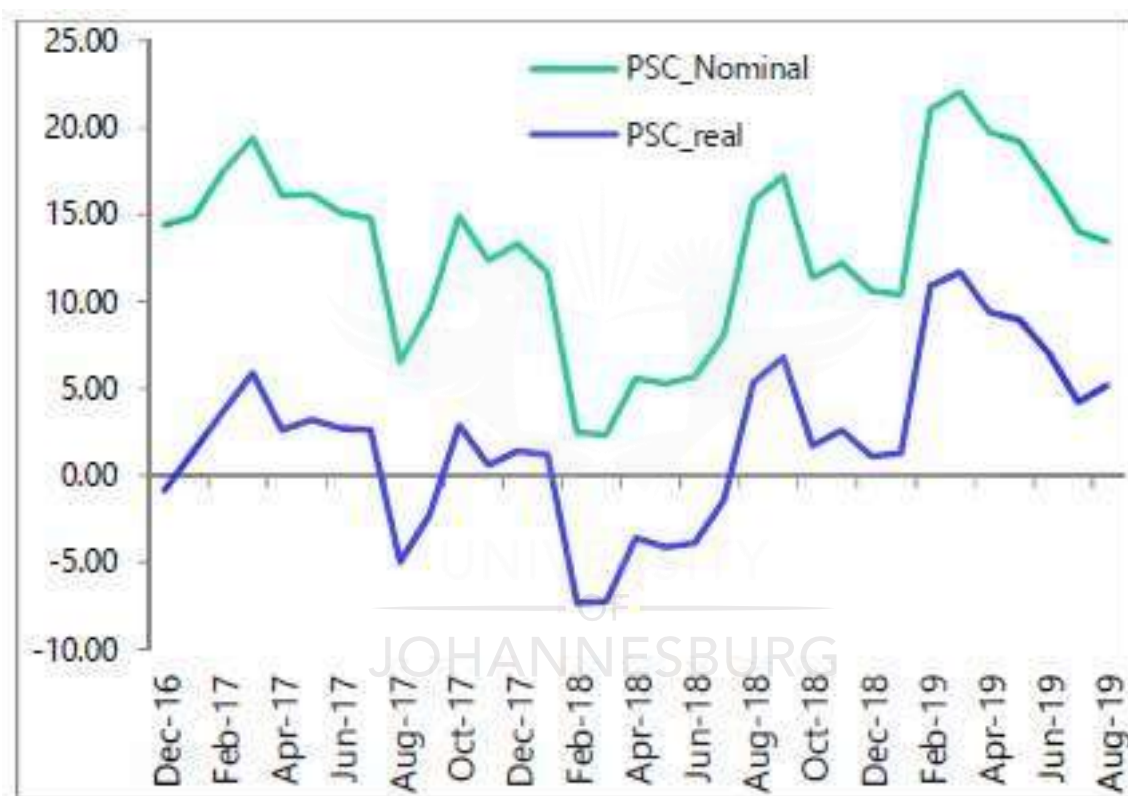


Figure 3. 22-Private Sector Credit Extension in Ghana

Source: Bank of Ghana (2019:13)

However, the lending rate in Ghana is high at an average of 23.9 per cent as of August 2019 (Bank of Ghana, 2019: 14). This high lending rate could wipe out the profits of businesses (Domeher, Musah, & Hassan, 2017: 198). Nonetheless, the weighted average interbank lending rate has remained at 15.2 per cent, down from 16.2 per cent in August 2018 (Bank of Ghana, 2019: 14).

3.4.1 Financial Sector Overview in Ghana-Debt Market

The financial system's structure is important for small and medium businesses to secure capital (Fouejieu, Ndoeye, and Sydorenko, 2020: 5). Ghana's financial sector is diverse and has grown steadily in recent years, but it is still dominated by banks (Andrej et al. 2016:9). Ghana has a low level of financial inclusion, according to the World Bank (2016:5), and entrée to finance for small and medium enterprises remains difficult. Low account usage, a preference for cash transactions, limited online and mobile commerce, and a high collateral requirement are all major issues. Only 40.5 per cent of adults have bank accounts.

Regarding small and medium enterprises, only 23 per cent have bank loans as collateral requirements are over 250 per cent of the loan amount (World Bank, 2016: 5). These figures notwithstanding, the banking industry has experienced significant growth, although asset quality has deteriorated. The majority of lending is still short-term, but loan tenors have gotten longer, with about 40 per cent of loans lasting up to five years (World Bank, 2016:5).

In terms of assets, the microfinance market accounted for about 15per cent of all financial institutions in 2014. Microfinance institutions (MFIs) have increased their client base from 1.3 million in 2001 to 8 million by the end of 2013. (World Bank, 2016: 5). The microfinance system, according to García-Pérez, Muñoz-Torres and Fernández-Izquierdo (2018: 608), generally provides financial services to clients that have limited access to conventional financial institutions. MFIs emphasise easy financial access instruments and easy account opening procedures. Clients with low incomes try microfinance to resolve basic needs or the expansion of a small enterprise, among others.

The leasing sector in Ghana facilitates access to loans for those without collateral or credit history, but according to the World Bank (2016:6), it is currently operating at a lower level than market potential, owing to regulatory constraints and financing limitations. Because it encourages access to funds for those without an established credit history, leasing is a broad and significant source of funding for small and medium enterprises. According to Singh (2011:155), businesses use leasing to purchase long term assets such as property and equipment without making significant upfront cash payments. Although some studies suggest that leases complement debt, Singh (2011:155) showed that leasing and debt are inversely related by using a sample of 233 retail and restaurant small businesses.

Despite Ghana's growing financial system, the World Bank (2016:10) reports that private sector loans and deposits as a percentage of GDP are still below the continental average. Figure

3.7 shows that private sector credit to GDP was 19 per cent in 2014, which is lower than the Sub-Saharan Africa (SSA) average of 24 per cent.

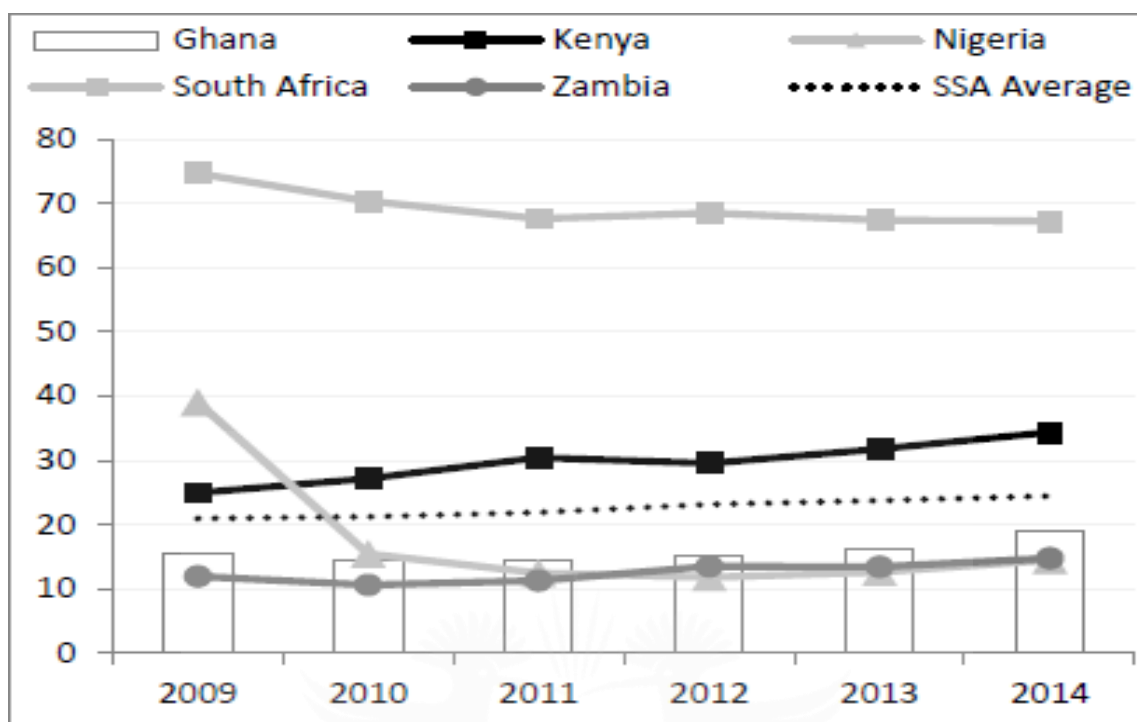


Figure 3. 23-Private Sector Credit to GDP

Source: World Bank (2016:10).

Furthermore, the total deposit-to-GDP ratio in 2014 was around 27 per cent, compared to a Sub-Saharan African average of 31 per cent. This is depicted in figure 3.8. Moreover, both credit and deposits remain below projected benchmark values measured by taking into account Ghana's level of growth and systemic characteristics (World Bank, 2016: 10). These figures represent evidence that it is challenging in Ghana to secure debt capital.

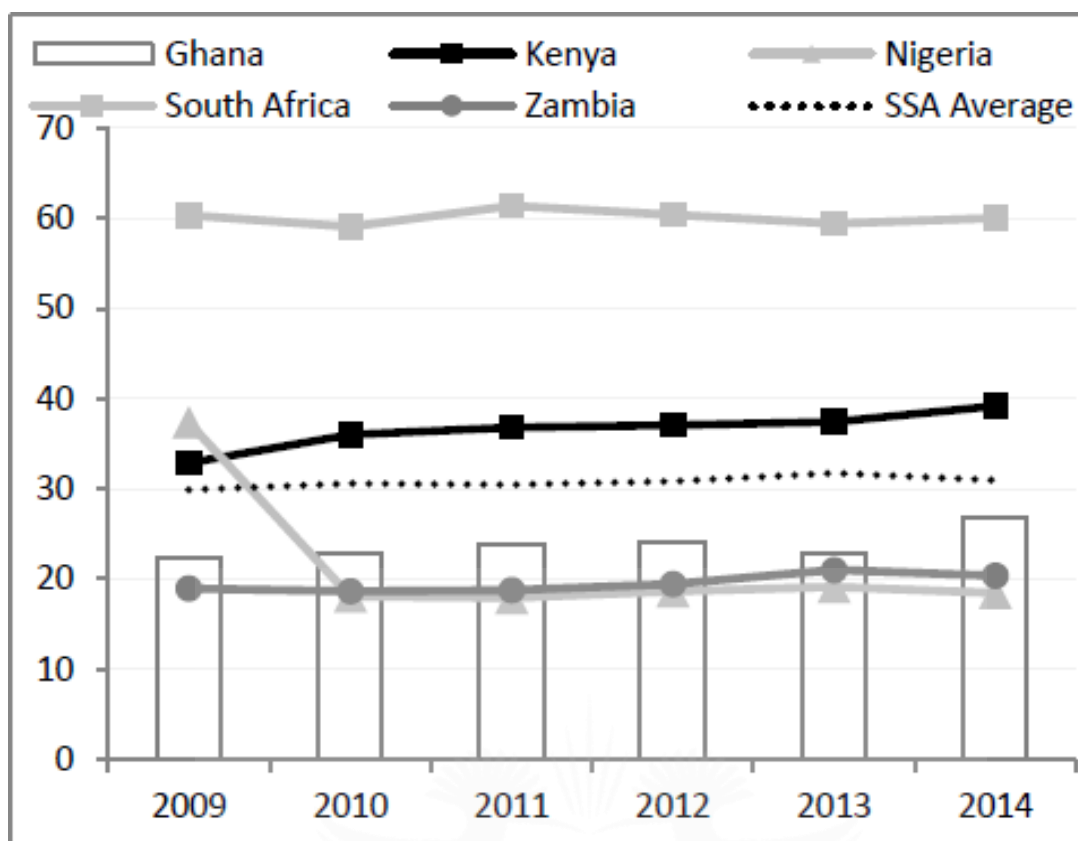


Figure 3. 24-Total Deposits to GDP

Source: World Bank (2016:10).

3.4.2 Financial Sector Overview in Ghana-Equity Market

As banks reduce lending, capital markets have to play a much more significant role, particularly in the financing of infrastructure. Presently many SMEs face major funding constraints in a market where there is limited availability of bank loans (Nassr & Wehinger, 2016:56). However, aside from the United States, where equity markets are mature, banks are the controlling source of external funding in most countries, especially in developing nations, because of the restricted size and depth of organised exchanges (Nassr & Wehinger, 2016:56).

In Ghana, an alternative market has been set up for small and medium enterprises that typically do not meet the conditions to be listed on the Ghana stock exchange (Johnson & Kotey, 2018: 142). The Ghana Alternative Market (GAX) was founded in 2013 to give small and medium enterprises growth opportunities. It has a focus on small businesses with growth potential. According to the Ghana Stock Exchange to be listed on the GAX, the issuer should be a limited liability company duly registered. “It must have a minimum stated capital of Ghc 250,000 at the time of listing. Additionally, the venture should have operated for at least one fiscal year and show profitability potential” (GSE, 2013:5).

Although listing on the GAX is supposed to allow SMEs to secure long-term capital at a lower cost, Johnson and Kotey (2018: 146) report that only four SMEs have been listed since its inception. According to Johnson and Kotey (2018:149), most small business owners secure funding elsewhere rather than the GAX as they perceive those sources to be more convenient. Tetteh (2014) investigated SME financing and the utility of the Ghana alternative stock market. The study noted that entrepreneurs are not likely to go public and dilute the ownership of their ventures. Moreover, the cost of advertising is not compensated for by anticipated benefits. This indicates that not much awareness has been created, and the small business owners are not incentivised enough to list their enterprises. As emphasised by Tetteh (2014:27), SMEs in developing economies such as Ghana have no faith in the alternative markets to provide adequate but affordable capital hence the reluctance to enlist.

The equity market in Ghana is not only made up of the GAX, but there is also a private equity/venture capital ecosystem. Private equity/ venture capital (PE/VC) companies are investment managers who leverage fixed capital pools to invest in a wide range of firms (Divakaran, McGinnis & Shariff, 2014:3). As of June 2014, the sum of global controlled private equity assets was \$3.8 trillion. Sixty per cent was accounted for in North America, with the remaining split between Asia and Europe (Divakaran, Schneider & McGinnis, 2018:4). However, in emerging markets, including Sub-Saharan Africa, fundraising totals increased to \$ 45 billion in 2014 from a low of \$39 billion in 2013. According to Divakaran, Schneider & McGinnis (2018:4), while South Africa is Sub-Saharan Africa's private equity hub, economies such as Nigeria and Ghana have expanded activity in the market over the years.

Ghana has a venture capital fund that was established as a ten-year close-ended cedi fund with a target return of 20 per cent and a target size of nearly \$6 million. In 2004, the venture capital trust fund was established as a fund of funds to invest in Ghana's SMEs via equity and quasi-equity financing (Divakaran, Schneider & McGinnis, 2018:6). However, a confluence of events has jettisoned the objective of the trust fund. Nonetheless, as shown in table 3.2, an array of local, regional, and Pan-African funds have revitalized Ghana's private equity and venture capital ecosystem. Ghana also has accelerators, incubators and angel networks that aid small and medium enterprises by providing both capital and technical support. According to Divakaran, Schneider and McGinnis (2018: 17), incubators and accelerators are not funds in and of themselves because they only provide a small amount of start-up capital.

Table 3. 2-List of investors in PE/VC Funds in Ghana

Illustrative list of investors in PE/VC funds in Ghana			
Local investors	Institutional Investors and corporates investing across Africa	Development-focused institutions	Family offices/ Foundations
<ul style="list-style-type: none"> • Agricultural Development Bank • Ghana Commercial Bank • Ghana Union Assurance • Gold Coast Securities Ltd • HFC Bank (Ghana) Ltd • National Investment Bank • SIC Insurance Company Ltd • SSNIT • VCTF • WDBI 	<ul style="list-style-type: none"> • Bank of Africa • Banque Populaire • CFAO • Colina Group • Crédit coopératif • NSIA Insurance • Public Investment Corporation, S. Africa • Sugar Industry Pension Fund of Mauritius • Wendel 	<ul style="list-style-type: none"> • African Development Bank • CDC • DEG • Ecowas Bank of Development • EIB • FMO • IFC • Norfund • PROPARCO • SIFEM • SOVEC • Swedfund • FINNFUND • OIKOCREDIT 	<ul style="list-style-type: none"> • Alliance for Green Revolution in Africa (AGRA) • America Lampert Foundation • Gates Foundation • Lundin Foundation • PhiTrust Partenaires • Soros Economic Development Fund

Source: Divakaran, Schneider & McGinnis (2018:13)

3.4.3 Access to funds for Ghanaian SMEs-Empirical Evidence

Entrée to finance appears to be a major barrier for Ghana's small and medium businesses.

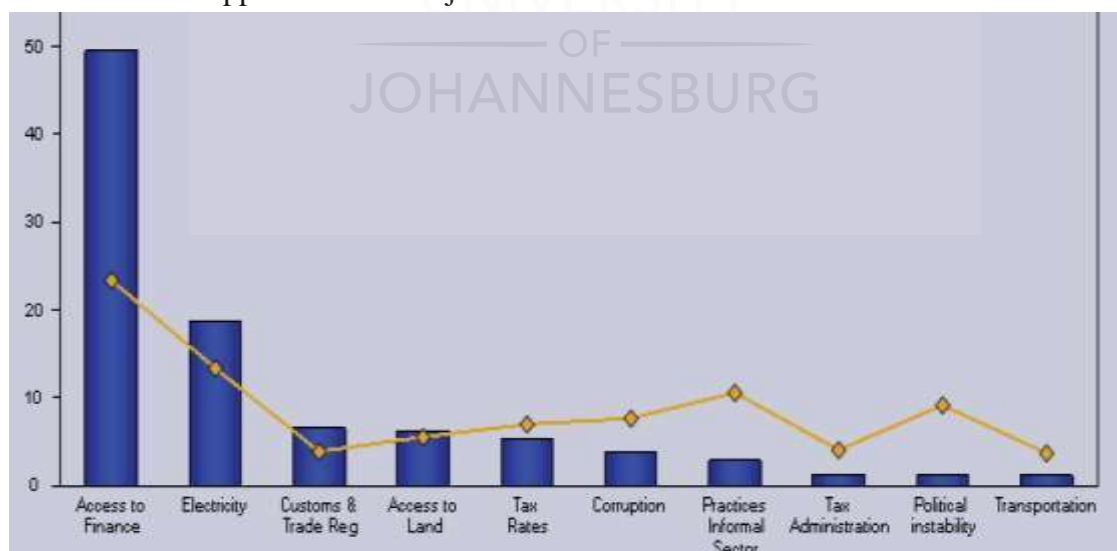


Figure 3. 25-Percentage of Firms Identifying Various Problems as Obstacles to Growth in Ghana

Source: International Finance Corporation (2013:4).

Access to finance was the most significant impediment to business growth in Ghana, as shown in figure 3.9. Furthermore, according to the World Bank (2016: 16), Ghana was ranked 119th out of 140 countries in the World Bank Economic Forum's Global Competitiveness Index from 2015 to 2016, with access to finance described as the main competitiveness limitation for Ghanaian SMEs. Furthermore, according to a 2013 World Bank Enterprise survey, 62 per cent of businesses rated access to capital as a major constraint, which is higher than the continental average of 41 per cent. Figure 3.10 depicts this situation.

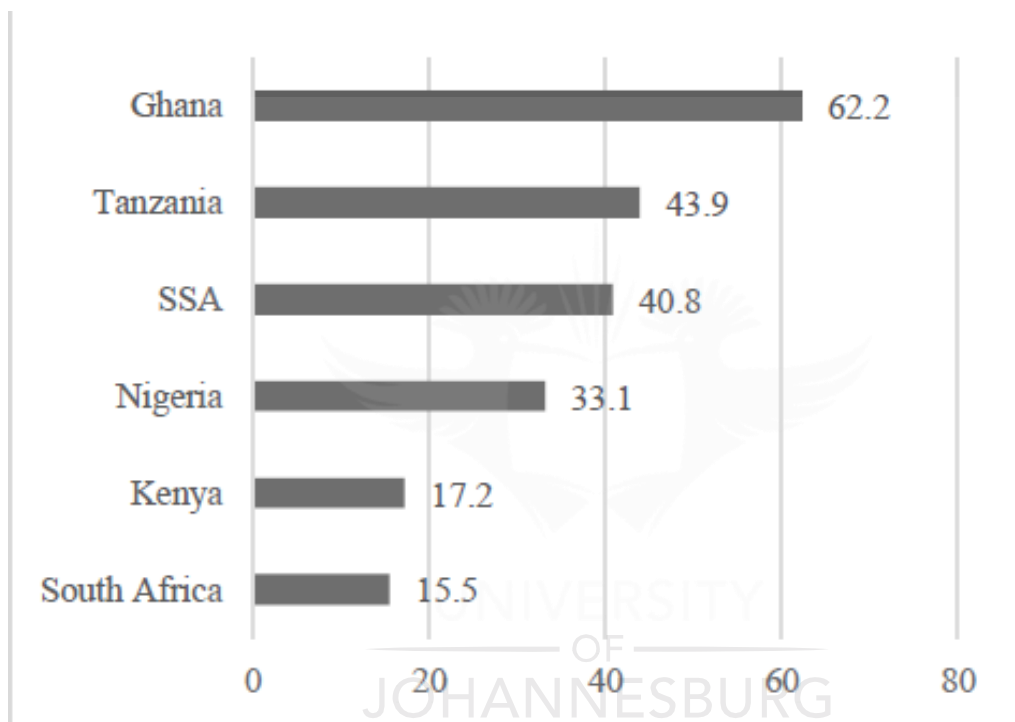


Figure 3. 260- “Access to Finance as a Major Constraint” (Country Comparison)
Source: World Bank (2016:17).

According to the 2013 World Bank Enterprise survey, 72 per cent of small businesses and 52 per cent of medium enterprises are limited by access to credit, while only 23 per cent of large firms are constrained for credit. Small businesses are also subject to high-interest rates and restrictive covenants. Clearly, access to finance is a major impediment to the growth of SMEs in Ghana. This, combined with high-interest rates, makes it difficult for nascent SMEs in Ghana to reduce the liability of newness. Having situated this study in the extant literature, the ensuing section lays out the conceptual framework for developing the study's hypotheses.

3.5 CHAPTER SUMMARY

This chapter focused on basic economic indicators such as inflation, interest rates, and economic growth to provide a thorough picture of the Ghanaian economy. The impact of these economic indicators on SME development was discussed. This is because, as Ali and Ibrahim (2018: 4776) argue, prevailing macroeconomic conditions can effect the survival or non-survival of SMEs. The chapter opened with a section that defines SMEs, including the nature of SMEs, small business development, and entrepreneurial traits. This is due to the fact that the development of small enterprises is frequently dependent on the entrepreneurial talents and experiences of small business owners (Kyndt & Baert, 2015: 16). The next chapter delves into the research design and methodology that girds this study.



CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The aim of this study is to explain how capital structure decisions and profitability affect the liability of newness in small and medium businesses. This was accomplished by establishing a link between the capital structure, profitability, and solvency of Ghana's fledgling small and medium businesses. Solvency was operationally defined as solvency ratio, working capital ratio, and net worth for the dependent variable. As a result, three different regression models for robustness were developed.

This chapter describes and supports the methodology used to achieve the study's goals. The term "research methodology" refers to the process of conceptualising a scientific investigation and defining the study's assumptions and procedures (Schwardt, 2007: 195). As a result, the chapter begins with a description of the research design and philosophy. The research strategy, sampling design, data collection, hypothesis statements, and data analysis techniques are all covered.

4.2 RESEARCH DESIGN

The research design is the general plan of how research questions are answered (Saunders et al., 2012:136). It provides the overall chassis for the choice of research subjects, research location, and data collection (MacMillan & Schumacher, 2001: 2015). Research design is, therefore, the foundation of the study. It is fundamental to the study as it affects the reliability of the results. As Kumar (2018: 10) explained, a research study should be rigorously systematic and controlled for the results to be valid and verifiable.

4.3 RESEARCH PHILOSOPHY

Research philosophy refers to systems of beliefs and suppositions about the advancement of a research idea. According to Saunders et al. (2015:124), when a researcher embarks on a study, the idea is to gain expertise in a specific area. Collins and Hussey (2003:46) indicate that research philosophy is concerned with the progress of scientific studies focused on social theory and conceptions about nature and knowledge. As such, at every stage of research, the researcher consciously or unconsciously makes a number of assumptions, including epistemological assumptions, anthological assumptions and axiological assumptions (Saunders

et al., 2015:124). According to Crotty (2003:3), these assumptions indicate how well the researcher understands the research questions.

A logical research philosophy would constitute a well-reasoned and clear set of assumptions that will underpin the methodological option, research strategy, data collection technique and analyses procedures (Saunders et al. 2015: 125). As outlined by Easterby-Smith, Thorpe and Lowe (2008: 27), the soundness of the research output is predicated on the underlying theoretical research inputs.

4.3.1 Epistemological, Ontological and Axiological Assumptions

Epistemology is the study of how we understand and justify what we know (Crotty, 2003: 3). Epistemology also aims to provide a philosophical foundation for determining what types of knowledge are possible and how they can be ensured to be both appropriate and logical (Maynard, 1994: 10). Studies based on archival and autobiographical accounts (Mart & Fernández, 2013: 1195), narratives (Gabriel, Gray & Goregaokar, 2013:56), and functional literature (Gabriel, Gray & Goregaokar, 2013:56) are examples of acceptable epistemologies (De Cock & Land, 2006:517).

According to Saunders et al. (2015: 125), the different epistemological assumptions have varying implications on the research method. As a result, a positivist assumption is more likely to lead to quantitative research methods being chosen. Ontology, on the contrary, refers to the philosophy of the existence of social phenomena as entities to be identified by a researcher in an information system (Cook, 1983: 7). Hence, it is the kind of world the researcher is studying, the essence of life and the structure of truth. According to Guba and Lincoln (1983:83), ontological assumptions address the phenomena of what can be understood or what the essence of reality is. The idea that the world is populated by human beings with their own thoughts, interpretations, and meanings is an ontological assumption.

Axiology refers to how scholars appreciate their own beliefs and those of participants in the study (Saunders et al. 2015:126). If research findings are to be credible, the position of the researcher is essential. As such, by being able to express their ideas as the basis for judging what studies they are doing and how they are doing it, researchers show axiological ability. Choosing one subject rather than another implies that one of the subjects is more important to the researcher. According to Saunders et al. (2015: 128), conducting a study with a focus on data gathered through interviews indicates that the researcher values personal contact with

respondents. Other than that, their thoughts would have been elicited through an anonymous questionnaire.

4.3.2 Positivism

Positivism refers to a researcher's philosophical position, and it entails interrelating with a noticeable social fact in order to derive law-like generalizations (Saunders et al. 2015: 135). According to Taylor and Medina (2011:4), the positivist research paradigm aims to analyse, validate, and forecast law-like behaviour patterns and is widely used to test theories or hypotheses. It is useful in studies such as this present study where large sample sizes are involved.

The objectivity of the research process is the focus of positivist studies. As such, the positivist paradigm involves quantitative methodology (Taylor & Medina, 2011:4). Statistical methods for data processing are fundamental in positivist research studies. As a result, the findings of such studies are generalisable (Remenyi, Williams & Swartz, 1998: 32). A positivist research paradigm was used in this study.

4.4 RESEARCH APPROACH

The research approach is a strategy and technique consisting of steps for systematic data collection and analysis. It is essentially split into two categories, the deductive approach, and the inductive approach (Creswell, 2003: 125). “The deductive approach assumes a theoretical position before data is collected, unlike the inductive approach, which is based on the principle of developing theory after the data has been collected” (Saunders et al. 2015: 41). Saunders et al. (2015:124) suggest that deduction owes more to positivism and induction to interpretism, to the extent that it is beneficial to link the research approaches to the various research philosophies. As a result, positivists are more likely to take a deductive rather than an inductive approach to problem-solving (Burns & Burns, 2008: 23).

The impact of capital structure and profitability on the solvency of nascent small and medium enterprises was investigated using a deductive quantitative research approach in this study. Quantitative deduction research, as defined by Saunders et al. (2015: 24), entails the development of a theory that is rigorously tested; as such, studies anticipate and predict phenomena. The solvency of nascent small and medium enterprises as a result of capital structure and profitability is expected in this study. According to Robson (2002:403), deductive research goes through five stages in succession. These are the following:

1. Deduction from a testable hypothesis, the relationship between two or more variables

2. Suggesting how to calculate the variables
3. Testing the operational hypothesis
4. Probing the precise result of their investigations
5. If required, in the light of the results, change the theory.

The search for relationships between variables is part of deductive research (Saunders et al., 2015: 125). The relationship between capital structure, profitability, and solvency is established in this research. The quantitative approach was used in this study because, according to Cresswell (2003:143), it is effective in hypothesis testing.

4.5 RESEARCH STRATEGY

The research strategy is described by Yin (2011: 5) as the plan that researchers adopt to answer research questions. Saunders et al. (2015: 141) consider seven research strategies which are experiment, survey, case study, action research, grounded theory, ethnography and archival research. This study adopts a cross-sectional survey strategy to establish the relationship between capital structure, profitability and solvency. Babbie and Mouton (2001: 93) indicated that a cross-sectional survey simultaneously explores the different constructs linked to a phenomenon. According to Saunders et al. (2015:144), the survey strategy is usually related to the deductive approach, and it allows the collection of quantitative data, which can then be quantitatively analysed with the use of descriptive and inferential statistics.

Furthermore, it is possible to use the data collected using a survey technique to suggest possible explanations for specific relationships between variables and to create models of these relationships. The survey method was used in this study because it allows the researcher more control over the process, as posited by Saunders et al. (2015: 144), and it also allows a low-cost procedure for data collection.

4.6 SAMPLING DESIGN

Sampling should be considered when conducting scientific research. Where it is possible to analyse data from the entire population, it is called a census (Saunders, Lewis and Thornhill, 2012: 212). In this study, a census of nascent SMEs in Accra, Kumasi and Tema metropolitan areas of Ghana that are registered with the National Board for Small Scale Industries was carried out. This also enabled the researcher to collect data on all accessible and willing members of the population. It ensures that there is no sampling error and that accurate estimates of the population are deduced (Rungani & Potgieter, 2018: 6).

4.6.1 Target Population and Sampling Frame

The entire category of cases from which a sample is taken is known as the population of the study (Saunders et al. 2012: 212). The population need not necessarily be people (Saunders et al. 2012: 212). In this study, the unit of analysis is small and medium enterprises operating in Accra, Kumasi and Tema metropolitan areas. Accra is the capital city of Ghana. Tema and Kumasi are also large cities in Ghana, with many small businesses across a broad category of industries (Ghana Statistical Service, 2013). Therefore, the population of this study is all small and medium enterprises in Accra, Kumasi and Tema that are registered with the National Board for Small Scale Industries. Such registered SMEs have defined operational structures, and they operate within the formal sector of the economy. They are bound by law to file audited annual returns with the Ghana Revenue Authority (Aryeetey & Ahene, 2005:15). As such, to remain in good legal standing, they keep financial records. Hence, they maintain financial records created by chartered accountants in order to maintain good legal standing with regulatory institutions.

The sampling frame is a collection of units from which a sample is taken. When determining whether cases act as sources for a sample frame in a survey, the most critical factor is the extent to which the target population is represented in the context (DiGaento, 2013: 296). Available list from the National Board for Small Scale Industries (NBSSI) of Ghana indicates that for the period 2010 to 2021, there are 7858, 433 and 2045 SMEs in Accra, Kumasi and Tema metropolitan areas, respectively, registered with the board. This makes a total population of 10,368 registered SMEs. While the total number of small and medium enterprises is 10,368, not all of them are nascent ventures. Following Günzel-Jensen and Holm (2015:83) and Crawford et al. (2015:6), the focus of this study is on SMEs that are not more than five years.

Therefore, for units to be included in this study, they should meet this selection criterion. The required SMEs that reflect this age characteristic were selected from the National Board for Small Scale Industries database. 1106 SMEs met the selection criteria and were the focus of this study. It is this category of Ghanaian small businesses that struggle the most to survive (Kusi, Opata & Narh, 2015:707).

4.6.2 Sampling Size

The sample size is the total number of participants to be chosen from the sampling frame from which answers to questions would be elicited. A sample is the number of cases from whom data is generated (Leavy, 2017:76). As a result of using a census in this study, all units of the

accessible population was surveyed. Data was collected on 1106 nascent SMEs in Accra, Tema and Kumasi that are registered with the National Board for Small Scale Industries.

4.7 DATA GATHERING TECHNIQUE

The purpose of this study is to establish the effect of capital structure and profitability on solvency. The essence is that when nascent small and medium enterprises see an uptick in profitability, they will be able to build financial buffers to prevent insolvency and ward off the liability of newness. Data used is mainly financial statement information, which are balance sheet and income statements, sourced from the National Board for Small Scale Industries. The required financial ratios for each SME in the study sample were then calculated from the financial statement information. Ratios are arithmetic relationships in the nature of X/Y that analysts can control in two ways. First, they regulate the size of the financial data. Hence ratios from different enterprises can be compared even if their underlying financial information, as found on the financial statements, are not numerically comparable. Secondly, ratios control for industry-specific characteristics (Jewell & Mankin, 2011: 80).

Capital structure was measured according to debt ratio, debt to equity ratio and equity ratio. Debt ratio is the percentage of assets of a business that creditors hold. Total debt covers all current and non-current liabilities (Abor, 2017: 191). Equity ratio uses the total assets of the business and its equity to show how the business finances assets by the use of equity. Generally, firms with a high equity ratio have a lower debt ratio and are less likely to be insolvent (Situm, 2014: 30). The debt-to-equity ratio is a measure of how much a company's capital can satisfy its debt obligations (Efendi, Putri & Dungga, 2019: 182).

Profitability was measured in terms of return on assets, return on equity and net profit after tax. Return on assets is profit measured as a percentage of total assets (Jewell & Mankin, 2011: 81). Return on equity sets out the amount of profit that the business generates for each unit of equity invested in the business (Ahsan, 2012:132). Net profit after tax is how much profit the firm has from operations. It is the profit that accrues to the owners of the venture, the real sum that the firm can get to retain in order to run the business (Shrotriya, 2019: 935).

Solvency was measured in terms of net worth, working capital and solvency ratio. Net worth is the value of an enterprise if all assets were sold, and liabilities paid in full. It is a financial snapshot that depicts an organisation's financial wealth at a specific point in time (Porter, 2012:1). Working capital reveals how easily the enterprise produces income from its working capital. It is an indication of the short-term solvency of the enterprise (Quesada-Pineda, 2019:

8). Short term solvency is affected by current assets and current liabilities (Yusoff, 2017:2). Current assets are assets that can be converted into cash in less than a year. Current liabilities are obligations that must be discharged in one year or less (Yahaya, Kutigi, Solanke, Onyabe, & Usman, 2015: 46). The solvency ratio is used to assess the ability of an enterprise to repay long term debts. It compares the company's total liabilities to its after-tax income, excluding non-cash depreciation charges. The solvency ratio is a tool for determining the capacity of an enterprise to meet its financial obligations (Ucal, & Oksay, 2011: 167). Following previous studies such as Abor (2005), who studied the effect of capital structure on profitability of Ghanaian firms, firm size and sales growth were also included as control variables.

The variables that were used to test the relationship between Profitability and Capital Structure, and Solvency are given in table 4.1.

Table 4. 1– List of Variables and their Formulae

Variables	Abbreviation	Formula	Source
Return on Equity	ROE	Net Income /Equity	Ahsan (2012:132)
Return on Assets	ROA	Net Income /Total Assets	Brigham & Houston (2021:119)
Net Profit After Tax	NPAT	Revenue-(Expenses+Taxes)	Kemp (2011:1)
Debt Ratio	DR	Total Liabilities/ Total Assets	Quesada-Pineda (2019:9)
Debt to Equity Ratio	DER	Total Liabilities/ Shareholder Equity	Gibson (2012:260)
Equity Ratio	ER	Total Equity/Total Assets	Situm (2014:30)
Net Worth	NW	Total Assets - Total Liabilities	Brigham & Houston (2021:67)
Working Capital Ratio	WCR	Current Assets/Current Liabilities	Brigham & Houston (2021:108)
Solvency Ratio	SR	$\frac{(\text{Net Profit After Tax} + \text{Depreciation})}{\text{Total Liabilities}}$	Ucal, & Oksay (2011: 167).
Size	SIZE	Log of Total Assets	Abor (2005:442)
Sales Growth	SG	$\frac{(\text{Current Period Sales} - \text{Prior Period Sales})}{\text{Prior period sales}}$	Abor (2005:442)

4.8 DATA ANALYSIS PROCEDURE AND STATISTICAL APPROACH

Data analysis is a mechanism by which data collected is combined into a manageable and suitable size, which helps researchers to categorise tendencies, apply statistical methods and summarise data (Cooper & Schindler, 2008:93). The analysis of data is also described as the editing, coding, documenting and authentication of data, as noted by Malhotra, Birks and Palmer (2004: 1208). This study utilised a quantitative data analysis technique. Quantitative data analysis is characterised as the arithmetic illustration, manipulation and management of survey observations in order to enable description and explain the inherent phenomena (Babbie, 2005: 414).

The study employed a multiple regression technique. The study analyses relationships between multiple explanatory variables. Multiple regression is the appropriate statistical method of analysis when the study involves a dependent variable postulated to be associated with two or more independent variables. The aim of multiple regression analysis is to project changes in the dependent variable as a result of movements in the independent variable (Hair et al., 2010: 17). According to Leech et al. (2005:90), multiple regression techniques allow for the simultaneous inclusion of numerous predictor variables into a model, allowing for the analysis, findings, and conclusions to be based on a single framework.

Many variables can be used in multiple regression models to explain variation in the dependent variable either separately or in concert. Furthermore, the findings obtained using multiple regression show the unique contribution of each parameter to the overall variance in the outcome variable by maintaining the remaining conditions constant (Fávero, Belfiore, 2019: 467). It can determine how well a set of variables may predict a specific outcome (Pallant, 2010: 148.). As such in line with previous studies such as Abor (2015) and Ayepa, Boohene & Mensah (2019), this study uses multiple regression technique to test the dependency relationships between the constructs. The regression analysis is described in detail in Chapter 5 of this study.

4.8.1 Multiple Regression Assumptions

Multiple linear regression analysis (MLRA) evaluates the relationship between numerous predictor variables and a dependent variable. The estimates of multiple linear regression analysis are referred to as coefficients. In this study, the amount of variance in solvency that is accounted for by the variation in profitability and capital structure was measured by using MLRA. Multiple regression analysis usually generates information such as the size and sign of regression coefficients, statistical significance for each coefficient and goodness of fit of the

model (Petchko, 2018: 276).

However, in deciding to use multiple regression to analyse the data, a critical step was to ensure that the data could be analysed using this test. There are several assumptions to consider when performing multiple regression (Laerd, 2015:8). Amongst the assumptions of multiple regression analysis are that there is a continuous dependent variable and two or more independent variables, which can be continuous or categorical (Laerd, 2013:8). This study tests the relationship between profitability, capital structure and solvency, which were all measured on a continuous level.

In Multiple Regression Analysis, there should be no significant outliers, high leverage points, or extremely influencing points. All these factors can have a significant negative impact on the regression equation that is used to predict the dependent variable's value based on the independent variables (Laerd, 2015:13). In this study, SPSS Statistics was used to detect possible outliers, high leverage points and highly influential points. In detecting outliers, the casewise diagnostics table was used to highlight any cases where the standardized residual was more than ± 3 standard deviations. A cut-off value larger than ± 3 is a standard criterion for determining whether a residual is representative of an outlier or not (Laerd, 2015:13).

Furthermore, harmful data points were removed by applying the Cook's distance, leverage values rule of thumb. Cook's distance (D_i) is used in Regression Analysis to detect significant outliers in a set of predictor variables. It is a technique for identifying points in the regression model that has a negative impact. The Cook's distance is calculated using each observation's leverage and residual values; the greater the leverage and residuals, the greater the Cook's distance. Large values (often greater than 1) indicate that the case has a significant influence on the predicted regression coefficients (Field, 2009:783). Leverage numbers range from 0, showing that the case has no effect, to 1, showing that the case has a significant impact (Field, 2009:217). One basic rule of thumb for determining if any scenarios have high leverage is to view leverage values of less than 0.2 as safe, 0.2 to less than 0.5 as risky, and values of 0.5 and above as dangerous (Laerd, 2015:13). In this study, cases in the data set that returned more than 0.2 leverage values were removed.

The assumption of multicollinearity was also checked in this study. When there are two or more independent variables that are highly correlated, then multicollinearity persists. Multicollinearity exists when the independent variables are highly correlated at $r = .8$ or higher (Field, 2009: 224). This causes issues with determining which variable contributes to the variance explained and technical difficulties in calculating a multiple regression model. Although inspection of correlation coefficients

is a good "ballpark" method, it overlooks more subtle forms of multicollinearity (Field, 2009:224). As a result, collinearity diagnostics like the variance inflation factor (VIF) and Tolerance are mentioned in this study. The VIF indicates whether one predictor has a strong linear relationship with another. The tolerance statistic is related to the VIF because it is its reciprocal ($1/\text{VIF}$). If the Tolerance value is less than 0.1 – which corresponds to a VIF greater than 10 – there might be a collinearity issue (Hair et al., 2014; O'Brien, 2007: 688; Pallant, 2013:158). In this study, the assessment of the data set was done to produce VIF and tolerance values that lie within the acceptable range.

To run inferential statistics such as multiple regression analysis, the residuals, or errors in prediction, must be regularly distributed. The methods that can be used to verify the residuals' assumption of normality include a P-P Plot (Laerd, 2015:14) and an assessment of skewness and kurtosis values (Pallant, 2013:59). The scatters of the residuals in a P-P Plot will be aligned along the diagonal line if the residuals are normally distributed. In reality, the points along the diagonal line will never be perfectly aligned. Furthermore, because regression analysis is fairly robust to deviations from normality, we only need the residuals to be approximately normally distributed (Laerd, 2015:14). In terms of skewness and kurtosis, in a normal distribution, the values should be zero. Positive skewness levels indicate a stack of scores on the left side of the distribution, while negative values indicate a stacking on the right side. Positive Kurtosis values show a pointed distribution which is heavy-tailed, whilst negative values point to a flat-tailed distribution. The further away from zero the value is, the more probable the data will not be distributed (Field, 2009:138). However, values of up to ± 3 are accepted as normal (Hair et al., 2010: 66).

Multivariate approaches make an implicit assumption of linearity. Non-linear effects will not be captured in a multiple regression analysis; it will only show the linear relationship between variables. As a result, the strength of association will be undervalued. The most common method for determining linearity is to examine linearity scatterplots of the variables and identify any nonlinear patterns in the data (Hair et al. 2010: 75). In this study, scatterplots depicting the relationship between each dependent variable and independent variables were examined and a straight line was drawn to show the linear relationship between the variables.

Linear regression models also rely on the assumption of homoscedasticity. Homoscedasticity is the assumption that the variance is the same for all values of the predicted dependent variable. Homoscedasticity is required because the variance of the dependent variable explained by the dependence relationship should not be concentrated in a narrow range (Hair et al. 2010: 73). Graphical representation is the best way to examine the homoscedasticity test. Shapes like

cones and diamonds show deviations from an equal dispersion (Hair et al. 2010: 73). Homoscedasticity was determined in this study by plotting standardised residuals against standardised predicted values. The spread of residuals was examined to show that the plot's points show no pattern and are approximately constantly spread.

4.8.2 Data Cleaning

All data sources may have mistakes and missing values the data cleaning process tackles such irregularity. It is a method to assess incorrect, incomplete, or unreasonable data to improve consistency by correcting errors and omissions found. The process can include format controls, completeness checks, review of the data to identify outliers through statistical approaches, among others (Chapman, 2005: 1). In this study, data cleaning was done by the use of Microsoft Excel and IBM SPSS version 27 to conduct data summarising and data reduction, respectively. Frequency distribution in each of the variables was run. This ensured that the data fell within the expected range, and outliers were detected.

4.8.3 Descriptive Analysis of Data

Descriptive statistics is the terminology used for the analysis of data that allows a coherent explanation, display or overview of data, such as trends that may arise from the data. However, descriptive statistics cannot enable the researcher to draw conclusions over and above the data that have been studied or reach conclusions concerning the hypotheses. It is just a way of representing the data (Laerd, 2015:1).

Descriptive statistics is very valuable because it would be difficult to see what the data showed, particularly if it was presented as raw data. Therefore, descriptive statistics allow the researcher to present data more accurately so that the data can be understood more easily (Laerd, 2015: 1). Descriptive statistics that are central to this study are measures of central tendency such as mean and measures of spread such as standard deviation.

4.8.4 Reliability of the Data

Reliability refers to the sum of accurate results from the data collection methods or analytical procedures. Easterby-Smith, Thorpe, Jackson and Lowe (2008: 109) maintain that reliability can be evaluated by raising the following questions:

- Would the steps achieve the same results on other occasions?
- Can other observers come up with similar observations?
- Is there clarity with respect to how sense was made from the raw data?

The reliability of secondary data is a result of the process and source from which the data was obtained (Saunders et al., 2015: 274). In this study, the raw data is the financial statement data

of small and medium enterprises. Such financial statements are prepared based on generally accepted accounting principles (GAAP) which ensures the integrity and accuracy of financial reporting between organisations.

The reliability of accounting information is determined by accounting standards that conform to underlying economic structures and by those who plan and audit the financial reporting with such standards in mind (Maines & Wahlen, 2006: 401). In general, fairly reported financial statements represent the economic content of an enterprise's financial transactions and are factual, free of prejudice and material mistakes (Szivos, 2014: 161). Financial statement data such as those used in this study are in a standardised format and are prepared in compliance with an appropriate framework for financial reporting.

4.8.5 Validity

Validity refers to the degree to which the method of data collection determines what is supposed to measure and contribute to a valid inference (Creswell, 2008: 169). Measurement validity is one of the most critical requirements for the suitability of any data collection. Secondary data that does not provide the researcher with the information needed to answer research questions could lead to invalid conclusions (Saunders et al. 2015: 273). A common method to solve measurement invalidity is to examine the choice of data of other researchers in similar settings. If they found similar data suitable for similar studies in similar settings, then the researcher could be sure that the data would be appropriate. Following Abor (2007), which explained the capital structure of SMEs in Ghana, this study used financial statement data of small and medium enterprises in Ghana.

Coverage is the other major suitability criterion. Coverage indicates how well the sampling units used in a specific sampling frame account for the target population in a study. If the sampling frame does not include all units in the target population, then the population is under covered (Lanrakas, 2008). In studies that use secondary data, the researcher needs to ensure that the data covers the population from which information is required, and it includes variables that allow research questions to be answered and objectives met (Saunders et al. 2015:274).

In this study, coverage was ensured by including all small and medium enterprises in Accra, Kumasi and Tema that are registered with the National Board for Small and Scale Industries (NBSSI) and have been operating for less than five years. This also ensured external validity such that the results of the study could be generalised. Another type of validity of importance in this study is internal validity. Internal validity, as described by Cozby (2009: 86), relates to the degree to which the study design helps the researcher to arrive at specific conclusions. In

this study, through a detailed theoretical framework, internal validity was assured. The study was rooted in the capital structure theories and the liability of newness framework.

Predictive and Concurrent validity: In determining a measure's criterion-based validity, predictive validity is frequently considered in tandem. While concurrent validity refers to the relationship between a measure and criterion evaluation, predictive validity is concerned with the determination of future performance. The measure to be validated is correlated with another measure that assesses the phenomenon of concern. A positive correlation between the two measures is all that is required to demonstrate that a measure is valid (McDonald, 2005:945). Predictive and concurrent validation are logically equivalent. The greater the correlation between dependent and independent variables, the higher the predictive validity and concurrent validity as well. If the correlation is perfect, the prediction validity is perfect as well. In most correlations, however, correlations are mostly modest, ranging from 0.3 to 0.6 (Mahojan, 2017: 17). A regression equation must be developed in order to test predictive validity (Gregory, 2007:124). In this study, three regression equations were developed to test how profitability and capital structure predicts solvency in nascent small and medium enterprises.

4.9 HYPOTHESIS

According to Kabir (2016: 52), researchers cannot take a solitary step forward in any investigation unless they proceed with a suggested interpretation or solution to the research problem. Such preliminary explanations to problems are suggested to the researcher through a review of the literature and previous knowledge on the subject matter. According to Kabir (2016:52), such explanations, when put forward as propositions, are referred to as hypotheses. Thus, the hypothesis is a preliminary assertion about the relationship between two or more variables. It is a specific, ascertainable prediction about what the researcher expects to find in the analysis.

As such, the hypothesis is an empirically testable proposition that tentatively describes a phenomenon (Zikmund, 2003:498). The type of hypotheses in this study can be described as relational hypotheses. Relational hypotheses suggest the association between two or more variables (Coldwell & Herbst, 2004: 86; Cooper & Schindler, 2008: 51). Hypotheses must therefore include the variables and the relationship between them. According to Kabir (2016: 54), the main features of a hypothesis include the following:

- It is conceptual in nature
- It shows the relationship between two or more variables
- It is neither too particular nor too general

- It is a prediction of consequences
- It is considered beneficial even when it is proven to be incorrect.

Statistical hypotheses are usually given in the null form when stating a hypothesis (Zikmund, 2003: 499). A null hypothesis (H_0) refers to the assertion that any deviation from what was assumed to be true would entirely be due to a random error. A statement suggesting the opposite of the null hypothesis is an alternative hypothesis (H_a). The null hypothesis is used for testing, as Cooper and Schindler (2008: 523) stated. In this respect, only the null hypothesis applicable to the study was tested. As seen in chapter two, a review of the literature resulted in the development of hypotheses aimed at explaining the phenomenon of the solvency of nascent small and medium enterprises as a result of capital structure and profitability.

4.9.1 Hypothesis Testing

Testing the possibility of a trend, such as a relationship between variables occurring by chance is referred to as significance testing (Saunders et al. 2015: 450). Rejecting a null hypothesis indicates a significant relationship between the variables studied. The significance of a relationship could be as a result of sample size, as it is difficult to achieve a significant relationship with a small sample (Saunders et al. 2015: 450). Errors may occur when making inferences from samples. These are referred to as Type I and Type II errors. Type I errors include unjustifiably rejecting a null hypothesis by incorrectly concluding that the variables are related or that a sample statistic exceeds the value that would be predicted by chance. A type II error ensues when the researcher assumes that the variables are not related when, in fact, they are, and the null hypothesis gets accepted. It also ensues when it is taken that a sample statistic does not exceed the value that would be predicted by chance alone (Saunders et al., 2015:450).

Table 4. 2- Type I and Type II Errors in Hypothesis Testing

Null Hypotheses	Decision	
Ho is true	Correct- No error	Type I error
Ho is false	Type II error	Correct-No error

Source: Zikmund (2003: 504).

4.9.2 Measurement Model Goodness –of-Fit Assessment

The model fit assessment ensures that the model implied covariance is within an appropriate

population covariance range so that the analysis of parameter estimates can be more accurate about the population. The fitness assessment of the model should be performed before interpreting the parameter estimation results. Without testing the model, any inferences from the model estimations could be misleading (Chang, Lee & Lee, 2009:206). A linear regression model's goodness of fit refers to how well the estimated model fits a particular collection of data and can describe the population. Linearity, normality other assumptions underpin a linear regression model. However, all of the assumptions in the standard regression model do not hold in reality. Hence, researchers must investigate how the behaviour of data in a particular sample might satisfy the regression assumptions. The goodness of fit refers to how closely the data's behaviour matches the model's assumptions (Majumder, 2020:76).

The coefficient of determination, R^2 is a statistical measure of goodness of fit for linear regression models. It determines how much of the overall variation in the dependent variable is explained by the independent variables (Hagquist & Stenbeck, 1998:232). Even though the measure has the same 0 to 1 range every time, it is difficult to know how much variance must be explained for the fit to be satisfactory (Hagquist & Stenbeck, 1998:234). However, Greenlaw (2009: 217) suggests that for time series regression, an R^2 of 0.8 is considered excellent. On the other hand, an R^2 of 0.4 or higher in a cross-section regression is considered good. However, since R^2 will always increase when new variables are added, regardless of their contribution to the proper specification of the model, the Adjusted R^2 was also used as a measure of goodness of fit. The higher the adjusted R^2 , the smaller the spread of points around the regression line (Figueiredo, Júnior, & Rocha, 2011:67).

Satisfactory goodness of fit was also achieved by requiring the models to depict a statistically significant result. The result is statistically significant if the significance value is smaller than 0.5. In that regard, combining all the independent variables in the regression model produces a model that is statistically significantly better at predicting the dependent variable than the mean model. It is also statistically significantly better fit to the data (Laerd, 2015:16). The F-ratio indicates how much the model has improved its prediction of the outcome in comparison to its level of inaccuracy. If a model is good, its improvement in prediction should be large, and the difference between the model and the observed data should be small. A good model should have an F-ratio that is greater than 1 (Field, 2009: 204).

4.10 COMPARING THE REGRESSION MODELS

The adjusted R^2 was used to assess the regression model's ability to fit the data. When comparing different models with at least one distinct parameter, the use of the adjusted R^2

becomes necessary (Fávero & Belfiore, 2019: 470). Adjusted R^2 is a measure similar to regular R^2 , but it takes into account the number of cases and variables in the model. Regular R^2 will always increase when new variables are added, regardless of their contribution to the proper specification of the model. The addition of independent variables always raises the coefficient of determination. However, the adjusted coefficient of determination may fall if the additional independent variables have little explanatory power (Hair et al. 2009: 170).

The adjusted R^2 expression is as follows:

Where n denotes the sample size, and k denotes the number of regression model parameters (number of explanatory variables plus the intercept). As was proffered by Fávero and Belfiore (2019: 470), the model with the highest adjusted R^2 was chosen as the model that best explains the effect of the independent variables on the dependent variables.

4.11 COMPARING THE DIFFERENT VARIABLES IN THE REGRESSION EQUATION

It is critical that the researcher compares the standardised coefficients rather than the unstandardised ones when comparing the different variables in the regression equation. The term 'standardised' refers to the conversion of these values for each of the distinct variables to the same scale so that they may be compared. When the variation explained by all other factors in the model is controlled, the variable with the biggest Beta value (ignoring any negative signs out the front) makes the strongest unique contribution to explaining the dependent variable (Pallant, 2013: 161). This way, the variable(s) that contributes the most to the liability of newness of nascent small and medium enterprises was found. The quality of an admissible analysis is determined by the initial data screening and treatment. As a result, the next section provides a summary of the data screening techniques used in this investigation.

4.12 PRELIMINARY SCREENING

This section discusses some issues that affect the quality of multivariate tests, such as dealing with outliers and looking for influential points in the data set.

4.12.1 Outliers Identification

Outliers constitute observations that are unusual in a data set when the investigator wants to conduct a multiple regression analysis. This can alter the results produced by SPSS Statistics and reduce the predictive accuracy and statistical relevance of the results. Outliers are defined as those with standardised residual values greater than 3.3 or less than -3.3 (Tabachnick & Fidell, 2007: 128). Outliers do not violate the assumptions of linear regression in and of

themselves, but they can produce estimates that do not reflect reality. In a small sample, a single outlier can skew the line of best fit. Apart from using cut-off points for standardised residual values, there are several statistical techniques for detecting outliers, one of which is calculating Cook's distance (Casson, & Farmer, 2014:595). The casewise diagnostic table in SPSS was used in this study to highlight all situations with the standardised residual exceeding ± 3 standard deviations of the case. A value greater than ± 3 is a common cross-cutting criterion for determining whether the residual may or may not represent an outlier (Laerd, 2015:13)

In addition, Cook's distance: a measure of a case's overall influence on a model and leverage were calculated using SPSS. Large values (typically larger than 1) suggest that the case has a considerable impact on the regression coefficients predicted by the model (Field, 2009:783). The case's leverage number ranges from 0 to 1, indicating that it has no effect to 1, indicating that it has a major impact (Field, 2009:217). To determine if any cases have high leverage, the study considered leverage values of less than 0.2 to be safe, 0.2 to less than 0.5 to be risky, and 0.5 and above to be harmful, as suggested by Laerd (2015:13).

When outliers are detected in the data, the options are to remove the case, transform the data and change the score to be one unit higher than the next highest score in the data set, convert back from a z-score, or use the mean plus two times the standard deviation (Field, 2009:153; Pallant, 2013:151). In this study, seventy-six cases of outliers were removed. The remaining 1030 cases showed maximum acceptable Cook's distance and leverage values for each regression model as depicted in table 4.3. Subsequently, the researcher was confident that the data in its current form is free of important, influential points, providing an excellent justification for ensuing statistical analysis.

Table 4. 3-Checking for Influential Points

Regression Model	Cooks Distance	Centered Leverage Values	N
1	0.072	0.060	1030
2	0.030	0.060	1030
3	0.041	0.060	1030

4.13 ETHICAL CONSIDERATIONS

In research studies, participants must be fully aware of what is being asked of them, how data

will be used, and any possible implications thereafter (Fleming & Zegwaard, 2018: 120). Hence there is the need for researchers to gain an educated approval from the research participants (Fleming & Zegwaard, 2018: 210). Participants should be entitled to self-determining privacy and informed consent (Polit & Hungler, 1999: 132). In this study, data was sourced from the National Board for Small Scale Industries. The names of the SMEs were not disclosed, and confidentiality requirements were met as espoused by Boeijie (2010: 46). In addition, the study was analysed via the turn-it in software to ensure that the thesis was not plagiarised work. In this respect, all references were duly acknowledged as advocated by Garbers (1996: 342). To that end, the ethical requirements of the University of Johannesburg were met, and ethical clearance was obtained prior to data collection.

4.14 CHAPTER SUMMARY

This chapter outlined the research design and methodology that was used in this study to reach the research objectives. The research philosophy, research approach, the population of the study, sampling design and the data-gathering technique were also addressed. The chapter also covered the hypotheses and multiple regression analysis, which is the main data analysis technique used in this study. A preliminary screening of the data was also done. In the next chapter, the processing, presentation, analysis of the data are explained.

CHAPTER 5

PRESENTATION AND INTERPRETATION OF RESULTS

5.1 INTRODUCTION

The analysis and interpretation of the results is presented in this section. The data analysis process includes a systematic use of logical and statistical techniques to describe, illustrate, condense, and recap data collected during the study. The purpose is to use reasoning to understand and interpret the collected data. This chapter is mainly to showcase the achievement of the objectives of the study through an empirical assessment of the claims made in the conceptual model. The data were screened to check for normality and skewness, homoscedasticity, linearity and multicollinearity before analysis were made.

The relationship between capital structure, profitability, and solvency was substantially explained using three regression models. We estimate solvency using three different measures and, as a result, three different regression models for robustness. To determine the goodness of fit for the linear regression models, the coefficient of determination, adjusted R^2 , and F-ratio were calculated. The correlation between the dependent and independent variables was used to assess predictive and concurrent validity. For the creation of graphs, tables, descriptive statistics, and inferential statistics, data was sorted and entered into the statistical package for social sciences (SPSS Statistics 27). The p-values and regression coefficients were used to test the hypotheses. To compare the regression models, the adjusted R^2 is used. The standardised coefficients are used to identify the variable that contributes the most to the liability of newness. The following section is descriptive analysis which was performed to provide a general perspective of the SMEs that formed the sample of this study.

5.2 DESCRIPTIVE STATISTICS

Descriptive statistical techniques are used to summarise the characteristics of the population or sample in order to describe the basic elements of the data obtained in a study. The characteristics of the sample are described using descriptive statistics (Tree-Blanche, Durheim & Painter, 2006: 105). Items of descriptive statistics in this type of study allow the researcher to view numerical summaries of data in a way that allows the researcher to have a more general, logical, and up-front view of a large amount of data (Struwig & Stead, 2001: 158).

This section provides a descriptive overview of the data in a format that is simple to understand and interpret. According to Wimmer and Dominick (2009:165), this form of analysis is crucial in order to decrease the data set and enable better interpretation because it offers a

comprehensive biography of the data under examination. This allows the results to be contextualised. This statistical method provides data that may be used to determine whether the central location value is a reliable representative value for all the data's observations. The standard deviation of the sample means' theoretical distribution at the 95 per cent confidence level indicates how far the sample means can be derived from the population.

5.2.1 Firm Characteristics

This section explains the demographics for the research units. Such demographic information relates primarily to the characteristics of the enterprises from which data were collected. These descriptive statistics as discussed in detail in this section, includes the age of the business, the gender of the owners or major principals, the industry type, the form of business ownership, and the location of the business.

Table 5. 1- Descriptive Statistics

	Frequency	Percent
<i>Gender of Owners/ Major Directors</i>		
a) Male	728	66%
b) Female	378	34%
<i>Years of Business Operation</i>		
a) Less than two years	118	11%
b) Two to three years	146	13%
c) Three to four years	302	27%
d) Four to five years	540	49%
<i>Business Sector</i>		
a) Manufacturing	208	19%

b) Wholesale/Retail	256	23%
c) Education	132	12%
d) Construction & Mining	98	9%
e) Agriculture	40	4%
f) Hospitality/Tourism	102	9%
g) General Business Service	104	9%
h) Other	166	15%
<i>Forms of Business Ownership</i>		
a) Sole Proprietorship	268	24%
b) Partnership	72	7%
c) Limited Liability Company	740	67%
d) Other Business Structure	26	2%
<i>Location</i>		
a) Accra	802	72%
b) Kumasi	86	8%
c) Tema	218	20%

This study gathered data on fledgling small and medium businesses. While demographic data may not have a direct impact on the findings of the study, these traits are nevertheless an important aspect of the research process. The demographic findings are shown in the table

above. The study sample consisted of 1106 nascent small and medium businesses, with the wholesale/retail sector (256 participants) and manufacturing sector (208 participants) having the most participants. They accounted for 42 per cent of the SMEs under focus in this study. This reflects the business environment in Ghana, where a lot more people prefer to go into wholesale and retail than other sectors. The rise in that industry is accentuated by increasing worldwide trends, where people purchase through both online and offline means. With the necessity for retailers to provide seamless shopping experiences, the wholesale and retail sectors in Ghana have undergone a paradigm shift. As consumers become more informed and want more, it has become one of the most dynamic and fast-paced industries.

Even though the manufacturing sector makes up 19 per cent of SMEs in this study, it has not performed creditably to effectively contribute to Ghana's GDP. The reasons are several. After 1983, severe currency depreciation made purchasing inputs extremely expensive, hurting the manufacturing sector. Furthermore, the Economic Recovery Programme's stringent monetary policies caused manufacturers to face liquidity crises, while trade liberalisation meant that some businesses were unable to compete with cheaper imports. These measures harmed industries that already suffered from a long recession, hyperinflation, obsolete equipment, low demand, and restrictive loan covenants. At least 120 factories have closed since the past few years, primarily due to competitive imports. Particularly heavily hit were the garment, leather, electrical, electronics, and pharmaceuticals industries (Addo, 2017:74).

Businesses in other industries such as construction and mining (9%), education (12%), agriculture (4%), hospitality and tourism (9%), and general business service (9%) had lower participation rates. The general business service category refers to businesses that provide support (service) to a company or consumer but do not produce a product. Such service includes software service, training service, legal service and private security service *inter alia*. According to the findings of this study, entrepreneurs are sidestepping the construction and mining and agriculture industries, possibly because they demand large capital investment, which is clearly a barrier for SMEs in Sub-Saharan Africa (Tumwine et al. 2015:75).

As is mostly the case, males made up almost twice the number of female business owners sampled in this study. The reason for the disparity in business ownership grounded on gender has been explained in the extant literature. Paid job is often the primary source of social capital needed to maintain entrepreneurship. According to Murphy et al. (2007), experience and abilities and financial savings are used as the foundation for the new venture; similarly, previous job networks are used as suppliers, consumers, or as a "sounding board" that could

improve market share. As a result, women business entrepreneurs may find it more difficult to establish a substantial resource base while starting and growing a company (DazGarca & Brush, 2012:6) because they lack some of the requirements outlined by Murphy et al. (2007).

Although women's social and economic engagement in the workplace has increased dramatically in recent decades, unfavourable gender stereotypes continue in the social arena where women entrepreneurs operate, prescribing conventional behaviour (Díaz-García & Brush, 2012:6). When it comes to developing suitable capital in waged employment and transitioning to business ownership, women encounter various subtle impediments due to their gender. Due to a male conception of entrepreneurship, female entrepreneurship is sometimes given a lower level of legitimacy by the business community. This will impact the market position and image of women-owned businesses, limiting the mobilisation of critical resources and impeding the full realisation of their entrepreneurial potential (Díaz-García & Brush, 2012:6).

Because the focus of this study was on emerging SMEs, the cut-off point was set at five years or less. Forty-nine per cent of the sample was between the ages of four and five. 27 per cent of the participants in this study were between the ages of three and four years. SMEs with a lifespan of fewer than two years and those with a lifespan of two to three years made up 11 per cent and 27 per cent of participants, respectively. Unsurprisingly, the majority of SMEs are based in Accra, Ghana's capital. Tema, the country's industrial hub, accounted for 20 per cent of all SMEs, while Kumasi accounted for only 8 per cent. The vast majority of the SMEs sampled are limited liability companies (67 per cent). This could be due to the fact that certain industries, such as the pharmaceutical industry, require firms to register as such from the onset.

5.2.2 Central Tendency and Variability of Variables (dispersion)

When confronted with a big set of data, it is necessary to distil it into a few numbers that characterise the broader set. To gain a thorough understanding of the contribution of each variable, a descriptive analysis of the variables, including their minimum, maximum, mean values and standard deviation, were performed. A standard deviation is a measure of data dispersion in proportion to the mean. Data are grouped around the mean when the standard deviation is low, while data are more spread out when the standard deviation is high. A standard deviation near-zero denotes that data points are close to the mean, whereas a high or low standard deviation denotes that data points are above or below the mean, respectively. The standard deviation is equal to the root mean square deviation from the mean, and they are

related linearly (Sirois, 1991:330). The standard deviation, along with the mean, is used to summarise continuous data rather than categorical data (Laerd, 2015:3).

5.2.2.1 Profitability

Profitability measures a company's ability to turn a profit by utilising production factors and capital (Leon, 2018: 70). Profits in any organisation, large or small, are the sum of two variables: sales and costs (Stanley & Wasilewski, 2017: 141). It reflects how well the company is performing in terms of meeting predetermined goals (Issau & Soni, 2019: 59). In this study, profitability was measured according to return on assets, return on equity and net profit after tax.

Table 5. 2 -Item statistics for Profitability

Profitability					
Variable	Mean	Std.Deviation	Minimum	Maximum	Observations
Return on Assets	0.0709	0.0728	-0.0107	0.428	1030
Return on Equity	0.163	0.153	-0.271	0.745	1030
Net Profit After Tax	6599.987	5671.852	-17322.00	33503.00	1030

For nascent small and medium enterprises in Ghana, the mean values for Return on Assets and Return on Equity were 0.0709 and 0.163, respectively. In the sample, the maximum return on equity was 0.745, and the maximum return on assets was 0.428. The mean net profit after tax was 6599.987, with a maximum of 33503.00, return on assets, return on equity, and net profit after tax had minimum values of -0.0107, -0.271, and -17322.00, respectively. It is worth noting that the mean value of all the items exceeded the standard deviation. When the standard deviation exceeds the mean value, the distribution is considered non-Gaussian (Livingston, 2004:121). Profitability metrics show how well a business generates profit and value for its owners. Results with a higher ratio are frequently more desirable. The relatively low mean scores in terms of return on assets, return on equity and net profit after tax paint a picture of low profitability amongst nascent small and medium enterprises in Ghana. This may lend

credence to the notion that new firms are barely profitable and that, as Coad et al. (2013:173) suggest, profits rise with age.

5.2.2.2 Capital Structure

Capital Structure refers to the mix of debt and equity. Designing an appropriate capital structure could assist emerging small and medium-sized businesses in establishing a financial buffer against the risk of newness (Wiklund, Baker & Shepherd, 2010: 427). According to Dhankar (2019: 198), the most important decision that an organization can make is the financing decision. An appropriate capital structure reduces the cost of financing while increasing the firm's value (Bhatt & Mohd, 2017: 73). This is because each funding method has distinct advantages and disadvantages (Landsrom, 2017: 124). As a result, an efficient capital structure design leads to growth and productivity in the long run. The most important aspect, however, is that small and medium-sized businesses must find a specific mix of capital to ensure survival. Capital structure was measured in this study using the debt ratio, debt to equity ratio, and equity ratio.

Table 5. 3-Item statistics for Capital Structure

Capital Structure					
Variable	Mean	Std.Deviation	Minimum	Maximum	Observations
Debt Ratio	0.509	0.246	0.028	1.092	1030
Debt to Equity Ratio	1.304	0.891	0.073	4.576	1030
Equity Ratio	0.399	0.204	0.022	0.953	1030

The mean values for debt ratio and debt to equity and equity ratio for nascent small and medium enterprises in Ghana were 0.509, 1.304 and 0.399, respectively. The maximum values for debt ratio, debt to equity and equity Ratio in the sample were 1.092, 4.576 and 0.953, respectively. The minimum values were 0.028, 0.073 and 0.022, respectively, for debt ratio, debt to equity ratio and equity ratio. All the items had standard deviations around the mean that were less than one, indicating a low spread around the mean. If the standard deviation is small in

comparison to the mean, it indicates that the mean accurately represents the data (Pallant, 2013:39). It is worth noticing that all the items' mean values were higher than their standard deviations, indicating normal distribution (Livingston, 2004:121).

The Debt Ratio measures the percentage of a company's assets that are financed by debt. The sample's mean debt ratio was 0.509, indicating that SMEs in this study had approximately 0.509 of debt for every unit of asset. The Debt-to-equity ratio is similar to the debt ratio, but it indicates the relative proportion of assets funded by debt or equity. The average Debt-to-Equity ratio was 1.304. This indicates that the nascent SMEs in this study used 1.304 units of debt for every unit of equity. The third indicator of capital structure, equity ratio, compares a company's total assets to its total equity to determine how leveraged it is. It shows how well the enterprise can meet asset requirements without borrowing. The mean Equity Ratio was 0.399, indicating that the SMEs used more debt (0.601) to acquire assets.

It is obvious that entrepreneurial enterprises in Ghana employ more debt than equity based on the mean values of the Debt Ratio, Debt to Equity Ratio, and Equity Ratio. This is in line with Abor's (2008: 22) findings that SMEs in Ghana use a substantial level of debt. Even though debt increases a company's liability, investors refuse to fund small enterprises that seek external equity financing because they are informationally opaque (Zaleski, 2011: 44). Small and medium businesses that are just getting started have a hard time communicating their quality. As a result, establishing credibility with equity investors is difficult (Rutherford et al., 2018:926). Because small businesses in Ghana lack access to public equity markets, their primary sources of equity funding are retained earnings and angel investors (Abor, 2008: 23). However, internal equity sources, such as retained earnings, may be insufficient.

5.2.2.3 Solvency

When total liabilities exceed a reasonable valuation of the firm's assets, an organisation is considered financially distressed and insolvent (Almansour, 2015: 118). In such a case, the company's net worth is negative (Yeo, 2016: 237). The purpose of this research was to determine the relationship between capital structure, profitability, and solvency. The results of the descriptive statistics on solvency are shown in table 4.5 below.

Table 5. 4-Item statistics for Solvency

<i>Solvency</i>					
<i>Variable</i>	<i>Mean</i>	<i>Std.Deviation</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Observations</i>

<i>Solvency Ratio</i>	<i>0.185</i>	<i>0.142</i>	<i>-0.066</i>	<i>0.638</i>	<i>1030</i>
<i>Working Capital Ratio</i>	<i>1.270</i>	<i>0.693</i>	<i>0.039</i>	<i>3.915</i>	<i>1030</i>
<i>Net Worth</i>	<i>50037.499</i>	<i>10177.933</i>	<i>28331.957</i>	<i>76761.703</i>	<i>1030</i>

The mean values for Solvency Ratio, Working Capital Ratio and Net Worth for nascent small and medium enterprises were 0.185, 1.270 and 50037, respectively. All items have greater means than their standard deviations, which indicate that they are distributed as normal (Livingston, 2004:121). Because the standard deviation is small when compared to the mean, it indicates that the mean accurately represents the data (Pallant, 2013:39). In the context of debt obligations, Solvency Ratios indicate financial health for a company. Companies with high Solvency Ratios have large asset values compared to liabilities because significant portions of the assets are financed by equity (Brindescu–Olariu, 2016:281). The lower the solvency ratio of the company, the higher the likelihood of its debt distress. The solvency ratio in this study's sample is below an acceptable threshold, indicating the possibility of debt distress. A company's solvency ratio should be greater than 20 per cent to be considered solvent (Corporate Finance Institute, 2021)

The working capital ratio shows how much of an asset can be converted into cash in a year or less and how much liability can be paid in a year or less. Firms with a high working capital ratio show high performance (Aktas, Croci & Petmezas, 2015: 102). The mean working capital ratio is 1.270, implying that the nascent SMEs in this study owe 1.0 unit to creditors for every 1.270 units of current asset they own. A working capital ratio greater than 2:1 usually indicates a company's good liquidity position (Yameen & Pervez, 2016:35).

Net worth is the value, less liabilities, of the assets owned by an enterprise. It is an important measure of the health of an enterprise, providing a useful overview of its current financial situation. It presents an overview of an existing financial position of an entity because it represents an absolute value of the equity of owners. Insolvency occurs when total liabilities

surpass a reasonable valuation of the firm's assets (Almansour, 2015: 118; Power, 2015: 46). In this study, the mean net worth indicates that on average total assets exceeded total liabilities by GH¢50037.499 (\$8,284.14).

5.3 TESTING THE ASSUMPTIONS OF MULTIPLE REGRESSION

Checking to see if the data can actually be analysed using regression analysis is an important aspect of the procedure. Multiple regression assumptions allow researchers to (a) provide information on the exactness of predictions; (b) test how well the regression model fits the data; (c) determine the variation in the dependent variable explained by the independent variables; and (d) to test regression equation hypotheses (Laerd, 2015:4). The following assumptions were tested; state them here first.

5.3.1 Testing Normality

To run inferential statistics and determine statistical significance, the prediction errors – the residuals – must be normally distributed (Laerd, 2015:14). A P-P Plot with a superimposed normal curve (Laerd, 2015:14), as well as an assessment of the z values of skewness and kurtosis values, can be used to verify the residuals' assumption of normality (Pallant, 2013:59). Additionally, according to the central limit theorem, in large samples, regardless of the shape of the data that was actually collected, the sampling distribution tends to be normal. As such, the sampling distribution will tend to be normal regardless of the population distribution in large samples (Field, 2009:134; Kwak & Kim, 2017:145). Because the sample is large in this study, we can be confident that the sampling distribution is normally distributed.

Nevertheless, a Normal P-P Plot of Regression Standardised Residuals was generated and examined in this study to confirm that the residuals appeared to be about normally distributed. Cumulative probability plots (P-P) are used to determine whether variables distribution is in line with the distribution specified. The points shall be aligned along the diagonal line if the residuals are normally distributed. Essentially, the points are never perfectly aligned but should be at least close to the diagonal line (Laerd, 2015:14). In terms of skewness and kurtosis, in a normal distribution, the values should be zero. Positive skewness levels indicate a stack of scores on the left side of the distribution, while negative values indicate a stacking on the right side. Positive Kurtosis values show a pointed distribution which is heavy-tailed, whilst negative values point to a flat-tailed distribution. The further away from zero the value is, the more probable the data will not be distributed (Field, 2009:138). However, values of up to ± 3 are accepted as normal (Hair et al., 2010: 66). Data values are skewed or kurtotic when they exceed this threshold.

The results of this test, as shown in Table 5.5, indicate that the data are normal because the values of skewness and kurtosis were < -2 or $> +2$ for each measure, indicating that it is suitable for multiple regression analysis. Moreover, the standard errors for skewness and kurtosis were 0.076 and 0.152, respectively, which are very small values. The standard error is the standard deviation of a statistic's sampling distribution. It is a metric for determining how accurate an estimate is statistically. It tells us how much variability there is in each statistic, such as skewness and kurtosis, across samples from the same population. As a result, large values indicate that a statistic from a given sample may not accurately reflect the population from which it was drawn (Field, 2013:794). In this study, the small standard error values for skewness and kurtosis indicate that they accurately reflect the population from which they were drawn.

Table 5. 5 - Normality Assessment

Construct	Skewness	Std. Error	Kurtosis	Std. Error
Return on Assets	1.092	0.076	1.514	0.152
Return on Equity	0.878	0.076	0.756	0.152
Net Profit After Tax	1.042	0.076	0.683	0.152
Debt Ratio	-0.219	0.076	-0.534	0.152
Debt to Equity Ratio	1.044	0.076	1.091	0.152
Equity Ratio	0.007	0.076	-0.475	0.152
Solvency Ratio	0.932	0.076	0.425	0.152
Working Capital Ratio	0.217	0.076	-0.121	0.152
Net Worth	-0.283	0.076	0.155	0.152

To further ensure that the data was normal, it was plotted against a theoretical normal distribution with the points forming an approximate straight line. Deviations from normality will be indicated by large deviations from this straight line.

The scatters of the residuals almost fall straight on the normal distribution line, indicating a normal distribution of residuals, as can be seen in the P-P Plots in figures 5.1 to 5.3. The random points are not perfectly aligned along the diagonal line, but they are close enough to normal for the analysis to continue. The diagonal is closely followed by the line representing the actual data distribution. The points form a nearly linear pattern, indicating that the distribution for this data set is close to normal.

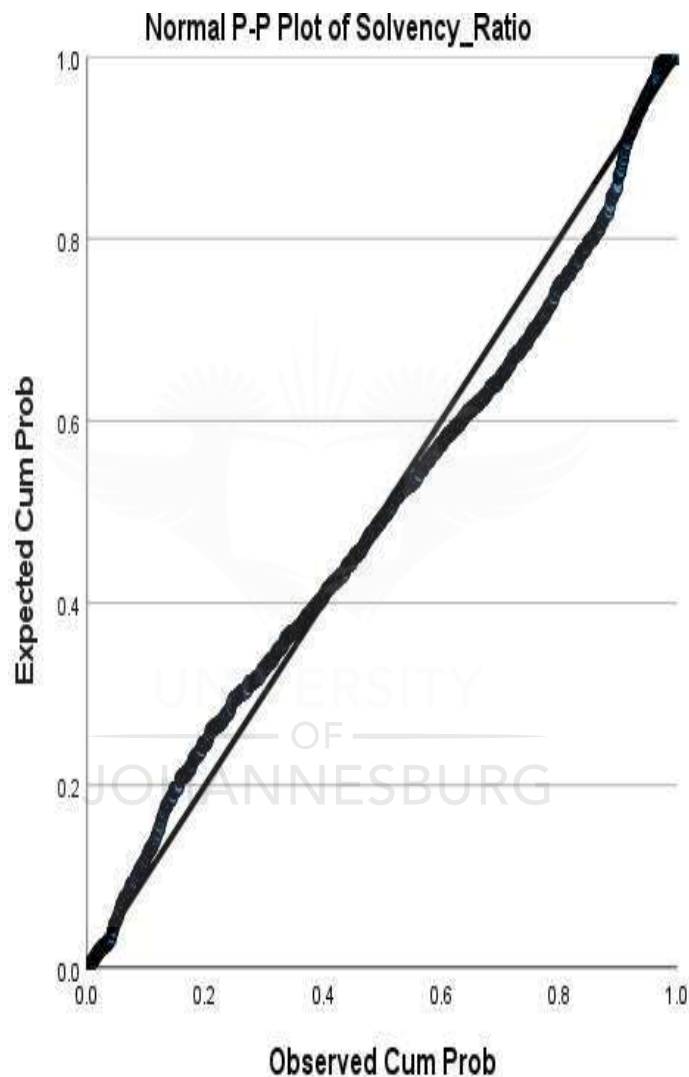


Figure 5. 1 P-P Plot of Regression Standardised Residual Dependent Variable Solvency Ratio

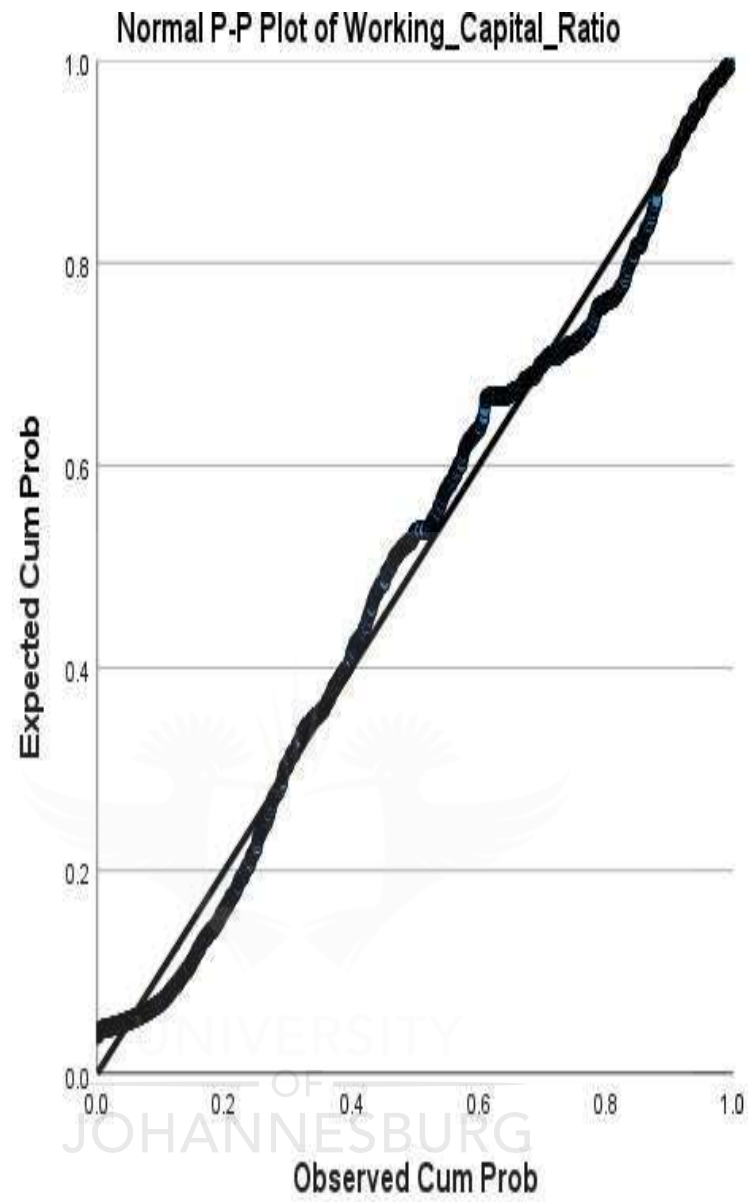


Figure 5.2 P-P Plot of Regression Standardised Residual Dependent Variable Working Capital Ratio

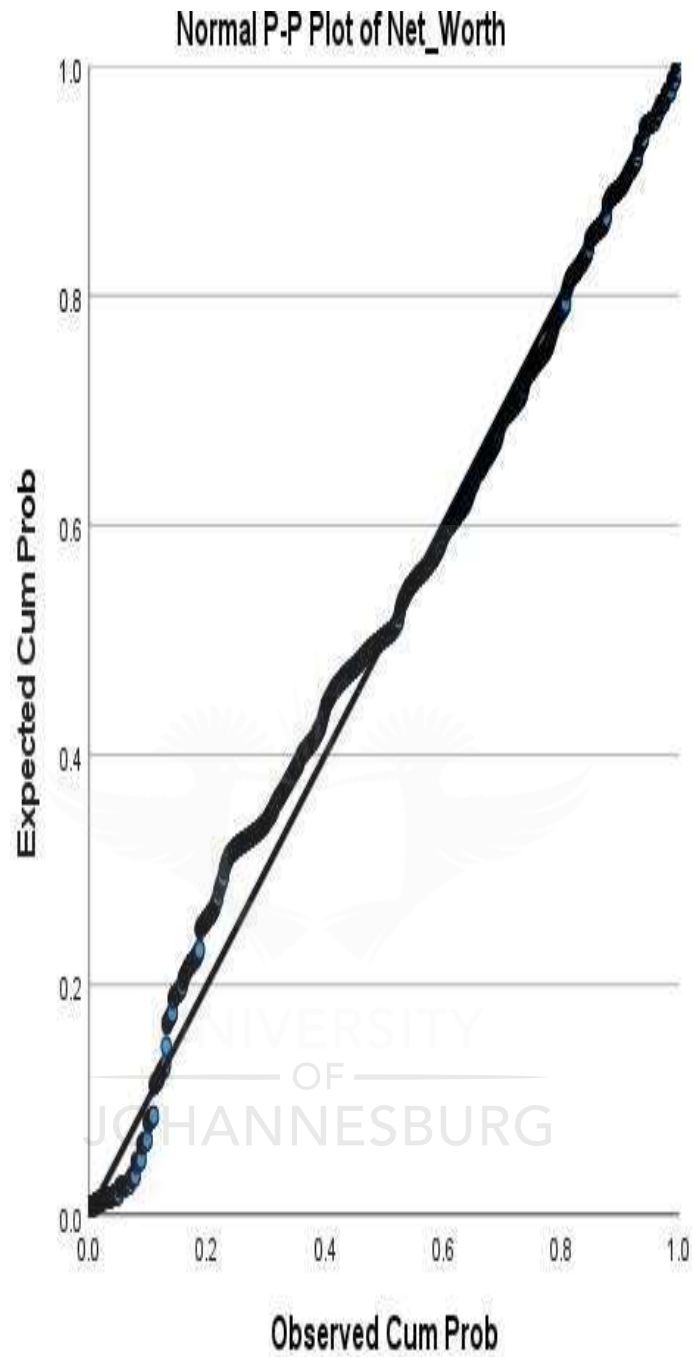


Figure 5.3 P-P Plot of Regression Standardised Residual Dependent Variable Net Worth

5.3.2 Multicollinearity Assessment

Multicollinearity occurs in the event of a high correlation between two or more independent variables. Perfect collinearity exists when two or more predictors are perfectly linear and have a correlation coefficient of 1. This causes confusion about which variable contributes to the variance explained, as well as technical difficulties when calculating a multiple regression model. The standard errors of the b coefficients increase with collinearity, and they are less likely to represent the population. The size of the correlation coefficient is also limited by multicollinearity (Field, 2009:224).

Scanning a correlation matrix of all the predictor variables and seeing if any correlate above 0.80 is one way to identify multicollinearity (Field, 2009: 224). Multicollinearity is also identified through the inspection of tolerance/ variance inflation factor (VIF) values (Laerd, 2015). Tolerance is a measure of how much of the variability of a given independent variable is not explained by the other independent variables in the model, and it is calculated for each variable using the formula $1-R^2$. If this value is very small (less than 0.10), it means that the correlation with other variables is high, implying that multicollinearity is possible.

The inverse of the Tolerance value is VIF. VIF values greater than 10 indicate multicollinearity, which is a cause for concern (Pallant, 2013:158; Hair et al. 2014). A correlation matrix of the variables is shown in table 5.6 to examine the degree of collinearity. Generally, the correlation coefficients are not sufficiently large to cause collinearity problems in the regressions. Field's (2009: 224) ballpark value was met because none of the predictor values correlated above 0.80.

Table 5.6- Correlation Matrix Between Predictor Variables

Variables	ROA	ROE	NPAT	DER	DR	ER
Return on Assets (ROA)	1.00					
Return on Equity (ROE)	0.705** (0.000)	1.00				
Net Profit After Tax (NPAT)	0.567** (0.000)	0.531** (0.000)	1.00			

Debt to Equity Ratio (DER)	-0.040 (0.098)	0.318** (0.000)	-.187** (0.000)	1.00		
Debt Ratio (DR)	0.043 (0.084)	0.325** (0.000)	-.168** (0.000)	0.709** (0.000)	1.00	
Equity Ratio (ER)	0.199** (0.000)	0.186** (0.000)	0.095** (0.001)	-.037 (0.119)	0.449** (0.000)	1.00

Note: P-values are in brackets. Sig. (1-tailed)

Multicollinearity between the independent variables was further investigated in this study by the use of VIF. The VIF values ranged from 1.813 to 7.067. Tolerance values ranged from 0.13 to 0.56. Each value met the cut-off points as suggested by Pallant (2013), Field (2009) and Hair et al. (2014).

Table 5.7 - Tolerance and VIF

Collinearity Statistics		
Variable	Tolerance	VIF
ROA	0.330	3.032
ROE	0.261	3.830
Debt Ratio	0.130	7.078
Debt to Equity Ratio	0.154	6.502
Equity Ratio	0.354	2.829
Net Profit After Tax	0.551	1.813

5.3.3 Testing Linearity and Homoscedasticity: Regression Model 1

Linearity: Multiple regression assumes that the independent variables are all linearly related to the dependent variable (Laerd, 2015:10). In this study, return on assets, return on equity, net profit after tax, equity ratio, debt to equity ratio, and debt ratio were all regressed on solvency

ratio in regression model 1. To test the assumption of linearity for the entire multivariate model, an examination of residuals is commonly used (Hair et al. 2010: 85). Scatterplots are commonly used to investigate the relationship between two or more continuous variables. They indicate whether the variables are related in a linear (straight-line) or curvilinear manner.

The scatterplot will also show whether the variables are related positively or negatively. When there is a positive correlation, the points form a line pointing upwards to the right. When there is a negative correlation, the line starts high on the left and moves down to the right. The dispersion also shows the strength of the relationship between the variables. If the relation is weak, the points will be strewn around in a blob-type arrangement. The points form a vague cigar form with a defined grouping of results around an imaginary line for a strong relationship (Pallant, 2013:74).

To test the linearity assumption, a scatter plot was created in this study, which plots the standardized residuals on the Y-axis and the standardized predicted values of the dependent variables on the X-axis. The estimated relationship between the solvency ratio and the predictor variables was represented by a best-fitted line. The fitted line is depicted in figure 5.4. It indicates that the variables have a direct linear relationship.

Homoscedasticity: The homoscedasticity of solvency ratio when predicted by return on assets, return on equity, net profit after tax, equity ratio, debt ratio, and debt to equity ratio was evaluated. The assumption of homoscedasticity is that the variance is the same for all predicted dependent variable values. If there is homoscedasticity, the residual spread will not change as you move across the predicted values (Pallant, 2013:152). A scatter plot's points will have no discernible pattern and will be almost evenly distributed.

The best way to test for homoscedasticity of two or more metric variables, as seen in methods like multiple regression, is to use graphical analysis, specifically an analysis of the residuals (Hair et al. 2010:81). As such, a scatter plot with the standardized residuals on the Y-axis and the standardized predicted values of the dependent variable on the X-axis was created to see if there was evidence of homoscedasticity among the residuals of the regression equation. On this basis, it appears that the homoscedasticity assumption has been met. There is not any discernible pattern, and as required by Tabacknick and Fidell (2013), the standardised residual plots vs standardised predicted value plots were almost the same in each point and showed no sign of funnelling. The points higher on the y-axis have almost no more variance than the lower values, and the distance between the fitted line and the dots has remained moderately constant.

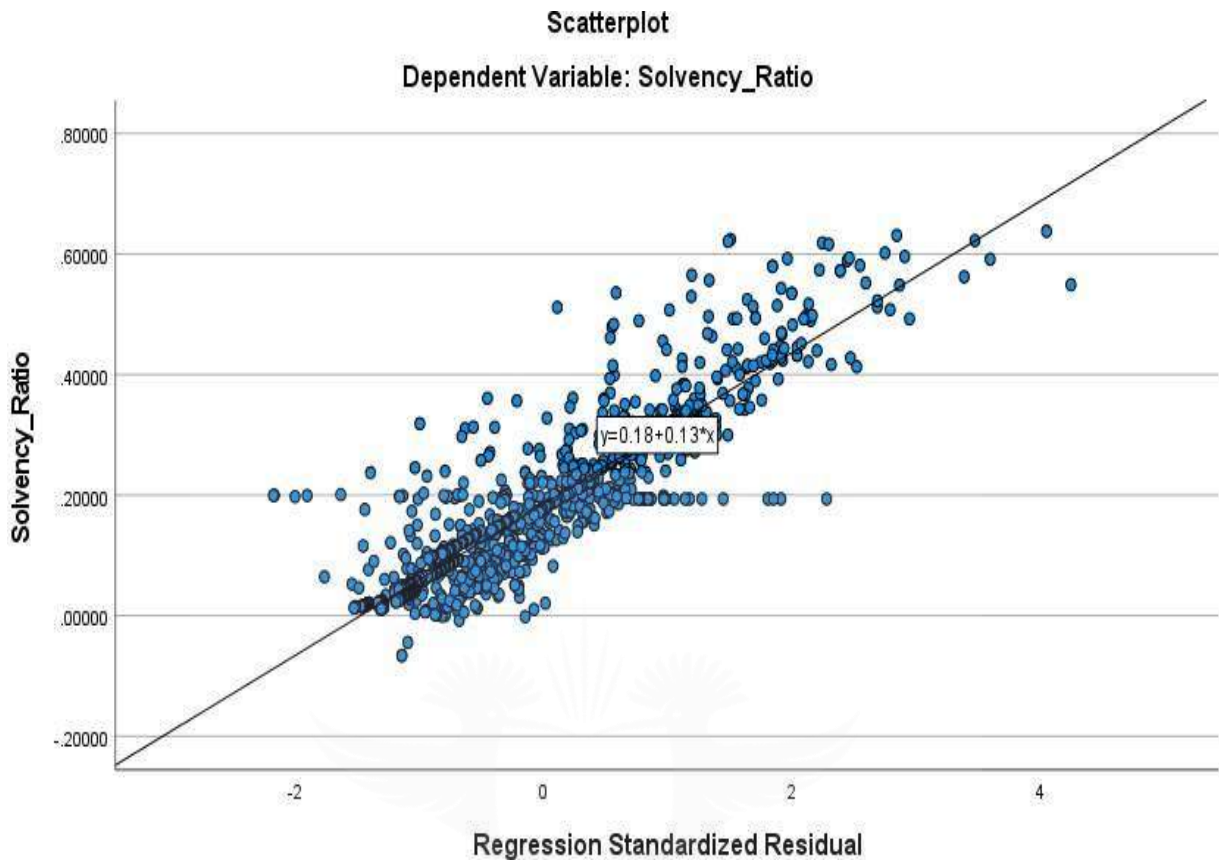


Figure 5. 4 Scatter Plot Showing Linearity and Homoscedasticity in Regression Model 1

5.3.4 Testing Linearity and Homoscedasticity: Regression Model 2

Linearity: In regression model 2 of this study, return on assets, return on equity, net profit after tax, equity ratio, debt to equity ratio, and debt ratio were all regressed on working capital ratio. An examination of residuals through a scatterplot was used to test the assumption of linearity for the entire multivariate model, as suggested by Hair et al. (2010: 85). A best-fitted line was used to represent the estimated relationship between the working capital ratio and the predictor variables on a scatterplot. Figure 4.5 illustrates the fitted line. It denotes a direct linear relationship between the variables.

Homoscedasticity: The working capital ratio's homoscedasticity, when predicted by return on assets, return on equity, net profit after tax, equity ratio, debt ratio, and debt to equity ratio was examined. A scatter plot was created to ensure that the points had no discernible pattern and were distributed almost evenly. If there is homoscedasticity, the residual spread will not change as you move across the predicted values. The plot's points will have no pattern and will be nearly evenly distributed (Laerd, 2015:11). A visual inspection of a plot of standardised

residuals versus standardised predicted values of the dependent variable revealed homoscedasticity, as can be seen in figure 5.5.

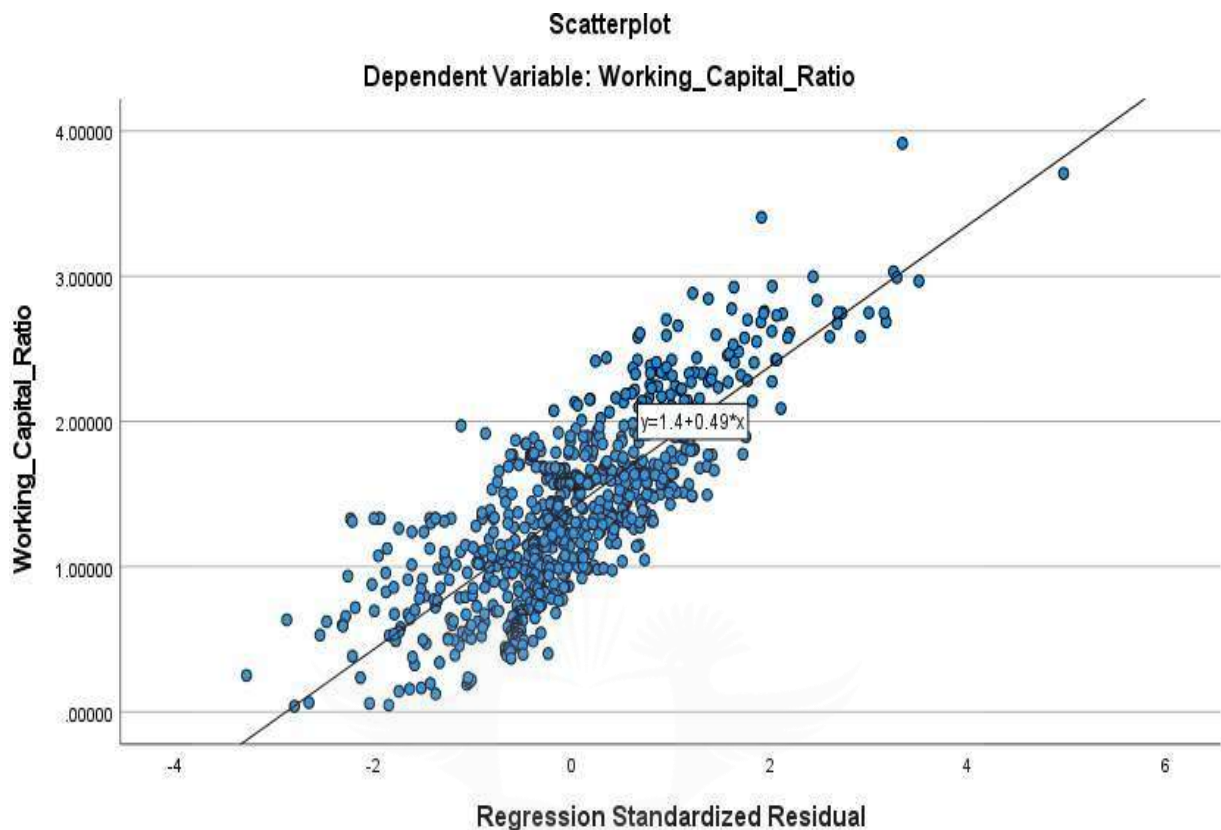


Figure 5. 5 Scatter Plot Showing Linearity and Homoscedasticity in Regression Model 2

5.3.5 Testing Linearity and Homoscedasticity for Regression Model 3

Linearity: Return on assets, return on equity, net profit after tax, equity ratio, debt to equity ratio, and debt ratio were all regressed on net worth in this study's regression model 3. A scatterplot examination of residuals was used to test the assumption of linearity for the entire multivariate model, as suggested by Hair et al. (2010: 85). On a scatterplot, the estimated relationship between net worth and predictor variables was represented by the best-fitted line. The fitted line is depicted in figure 5.6. It denotes that the variables have a direct linear relationship.

Homoscedasticity: The homoscedasticity of net worth as a function of return on assets, return on equity, net profit after tax, equity ratio, debt ratio, and debt to equity ratio was examined. To ensure that the points had no discernible pattern and were distributed nearly evenly, a scatter plot was created. The residual spread will not change as you move across the predicted values if homoscedasticity is present. The plot's points will be nearly evenly distributed and devoid of any pattern (Laerd, 2015:11). As can be seen in figure 5.6, a visual examination of a plot of

standardised residuals versus standardised predicted values of the dependent variable revealed homoscedasticity.

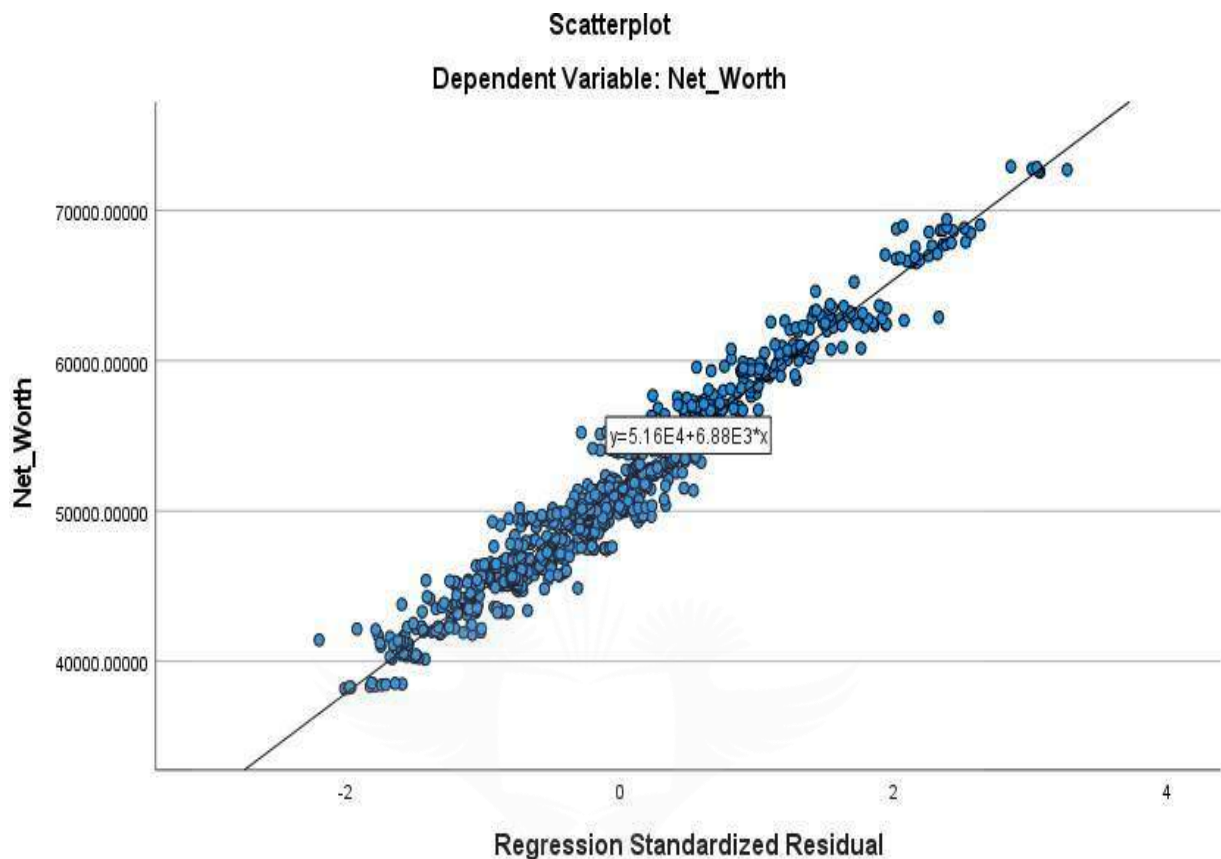


Figure 5. 6 Scatter Plot Showing Linearity and Homoscedasticity in Regression Model 3

5.4 MEASUREMENT MODEL GOODNESS-OF-FIT ASSESSMENT

The next step was to see how well the three regression models matched the underlying data after ensuring that this study's data could be analysed using multiple regression analysis. The goodness of fit is the degree to which the data matches the model's assumptions (Majumder, 2020:76). The model fit assessment ensures that the model implied covariance is within an appropriate population covariance range, allowing for more accurate parameter estimate analysis. Before interpreting the parameter estimation results, the model's fitness should be assessed. Any inferences drawn from model estimations that are not tested could be misleading (Chang, Lee & Lee, 2009:206). The goodness of fit of a linear regression model refers to how well the estimated model fits a specific set of data and can accurately describe the population.

5.4.1 Coefficient of Determination

For determining the general fit of the models, a number of tests are available. For the linear regression models in this study, the coefficient of determination, R^2 was used as one of the statistical measures of goodness of fit. It determines how much of the dependent variable's overall variation can be explained by the independent variables (Hagquist & Stenbeck, 1998:232). It is difficult to know how much variance must be explained for the fit to be satisfactory, even though the measure has the same 0 to 1 range every time (Hagquist & Stenbeck, 1998:234). However, according to Greenlaw (2009: 217), an R^2 of 0.8 is considered excellent for time series regression. However, in a cross-section regression such as this, an R^2 of 0.4 or higher is considered good.

Table 5.8- R Square for Regression Models 1, 2 &3

Model	R^2
1	0.615
2	0.519
3	0.096

In model 1, the R^2 was equal to 0.615, as shown in table 4.9. This means that including all the independent variables in the regression model explained 61.5 per cent of the variance in solvency ratio (i.e., $0.615 \times 100 = 61.5$ per cent). The R^2 value in model 2 was 0.519, as shown in table 4.9. This means that the regression model explained 51.9 per cent of the variability in working capital ratio when all independent variables were included. The R^2 in model 3 is 0.096, as shown in table 5.8. Hence, the proportion of variance in net worth that is explained by the independent variables over and above the mean model is 9.6 per cent.

5.4.2 Adjusted R Square

The Adjusted R^2 was also used as a measure of goodness of fit because R^2 always increases when new variables are added, regardless of their contribution to the proper specification of the model. The better the model fit, the higher the adjusted R^2 (Figueiredo Filho, Júnior, & Rocha, 2011:67). The adjusted R^2 is always less than R^2 and serves as an estimate of effect size (Laerd, 2015:16). Cohen (1988:79) classifies an absolute value of r of 0.1 as small, 0.3 is considered medium, and 0.5 is considered large. In model 1, adjusted R^2 was 61.2 per cent

a large effect according to Cohen (1988:79). The adjusted R^2 in model 2 was 51.5 per cent, a large effect size as classified by Cohen (1988:79). The adjusted R^2 was 8.8% in model 3, a small effect in the Cohen (1988:79) classification, Table 5.9.

Table 5. 1- Adjusted R Square for Models 1, 2 &3

Model	Adjusted R^2
1	0.612
2	0.515
3	0.088

5.4.3 Statistical significance of the model

The result is statistically significant if the significance value is smaller than 0.5. The level of statistical significance indicates how much confidence we should have in the results obtained rather than how strongly the variables are associated (Pallant, 2013:135). The overall statistical significance of the models containing all the independent variables are presented in the ANOVA table 5.10, as shown below:

Table 5. 2-ANOVA TABLE FOR MODELS 1, 2 &3

Model		Df	F	Sig.
1	Regression	8	203.874	0.000
	Residual	1021		
2	Regression	8	137.558	0.000
	Residual	1021		
3	Regression	8	13.480	0.000
	Residual	1021		

a. *Model 1 Dependent Variable: SR*

b. *Model 2 Dependent Variable: WCR*

c. *Model 3 Dependent Variable: NW*

d. *Predictors (Constant), NPAT, ROA, ROE, DR, ER, DER*

As can be seen in Table 5.10, the significance value for all the models was 0.000, implying a statistically significant result. This means that when all the independent variables are put together, it results in a model that is statistically significantly better at predicting the dependent variable than the mean model and is also statistically significantly better at fitting the data than the mean model. It also implies that at least one regression coefficient other than the intercept differs from zero in a statistically significant way.

In regression model 1, net profit after tax, return on assets, return on equity, debt ratio, equity ratio and debt to equity ratio statistically significantly predicted solvency ratio, $F(8, 1021) = 203.874, P < 0.05$. In regression model 2, net profit after tax, return on assets, return on equity, debt ratio, equity ratio and debt to equity ratio statistically significantly predicted working capital ratio, $F(8, 1021) = 137.558, P < 0.05$. In regression model 3, net profit after tax, return on assets, return on equity, debt ratio, equity ratio and debt to equity ratio statistically significantly predicted net worth, $F(8, 1021) = 13.480, P < 0.05$.

5.5 EVALUATING THE RESEARCH HYPOTHESES

Regression analysis was carried out to test the relational hypotheses between the variables. This allowed for the projection of changes in the dependent variable as a result of movements in the independent variable. As seen in chapter two, a review of the literature resulted in the development of hypotheses aimed at explaining the phenomenon of the solvency of nascent small and medium enterprises because of capital structure and profitability. As a recap, the overarching proposition of this study is that the solvency of nascent SMEs is significantly dependent on profitability and capital structure. Profitability was measured in terms of return on equity, return on assets and net profit after tax. Capital structure was measured in terms of the debt ratio, debt to equity ratio and equity ratio. Solvency was measured in terms of solvency ratio, working capital ratio and net worth. Thus, the primary objective was achieved through the three secondary objectives of this study which were:

- To assess the relationship between profitability, capital structure and solvency ratio
- To assess the relationship between profitability, capital structure and working capital ratio
- To assess the relationship between profitability, capital structure and net worth.

The first secondary objective and its corresponding sub-objectives will be discussed below.

5.5.1 The Relationship Between Profitability, Capital Structure and Solvency Ratio (Hypothesis 1)

The relationship between profitability, capital structure and solvency ratio was estimated in the following regression equation:

$$SR_i = \beta_0 + \beta_1 ROE_{i,1} + \beta_2 ROA_{i,2} + \beta_3 NPAT_{i,3} + \beta_4 DR_{i,4} + \beta_5 DER_{i,5} + \beta_6 ER_{i,6} + \beta_7 SIZE_{i,7} + \beta_8 SG_{i,8} + \epsilon_{i,t}$$

Where:

SR_i , is the Solvency Ratio for SME i in the population

ROE_i , is the Return on Equity for SME i in the population

ROA_i , is the Return on Assets for SME i in the population

$NPAT_i$, is the Net Profit after Tax for SME i in the population

DR_i , is the Debt Ratio for SME i in the population

DER_i is the Debt-to-Equity ratio for SME i in the population

ER_i , is the Equity Ratio for SME i in the population

$SIZE_i$, is the log of total assets for SME i the population

SG_i , is sales growth for SME i in the population

$\epsilon_{i,t}$ is the error term

The β 's are the coefficients for every independent variable.

A number of hypotheses were proposed in order to achieve the objective of investigating the relationship between profitability, capital structure, and solvency as measured by the solvency ratio. The null hypotheses are set as follows:

H_{01} : Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent SMEs as measured in terms of Solvency Ratio.

$H_{01(a)}$: Return on Equity is not a statistically significant predictor of solvency of nascent SMEs as measured in terms of Solvency Ratio.

$H_{01(b)}$: Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

$H_{01(c)}$: Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(d)}: Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(e)}: Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

H_{01(f)}: Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio.

5.5.1.1 Multiple Regression Results for Hypothesis 1

A multiple regression analysis was performed to predict the solvency ratio (SR) based on net profit after tax (NPAT), return on assets (ROA), return on equity (ROE), debt ratio (DR), equity ratio (ER), and debt to equity ratio (DER). The results are summarised in table 5.11.

Table 5. 3-Multiple Regression Results for Hypothesis 1

SR	B	95% CI for B		SEB	β	t	sig	R	R ²
		LL	UL						
							0.000	0.784	0.615
NPAT	1.748E-6*	4.4E-7	0.3E-6	0.000	0.070*	2.671	0.008		
ROA	0.128	-0.001	0.257	0.066	0.066	1.940	0.053		
ROE	0.482*	0.413	0.551	0.035	0.520*	13.660	0.000		
DR	-0.247*	-0.308	-0.186	0.031	-.429*	-7.974	0.000		
ER	0.398*	0.354	0.443	0.023	0.573*	17.534	0.000		
DER	0.038*	0.023	0.053	0.008	0.239*	4.823	0.000		

Note: B= Unstandardised Regression Coefficient; CI= Confidence Interval ; LL= Lower Limit ; UL= Upper Limit ; SEB= Standard Error of the Coefficient ; β = Standardised Coefficient of Determination. * $p < 0.05$

5.5.1.2 Discussion of the Results

Hypothesis H_{01} stated that Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent SMEs as measured in terms of Solvency Ratio. The results, as shown in table 5.11, indicates that profitability and capital structure statistically significantly predicted solvency as measured in terms of solvency ratio, $F(8, 1021) = 203.874$, $p < 0.05$, $R = 0.784$. As a result, the null hypothesis is rejected, while the alternative hypothesis is accepted. The finding is expected, given that enterprises with high profitability are expected to be able to fend off the liability of newness. Al Omari (2020) examined data from the Amman Stock Exchange for Jordanian Pharmaceutical businesses between 2005 and 2018 and determined that profitability as measured by ROA (Return on Assets) as the dependent variable has a positive connection with solvency. As Yazdanfar and Öhman (2015:531) indicate, high profitability results in high growth. And firm growth is a precondition for firm survival (Persson, 2004:437). As such high profitability reduces the likelihood of failure in emerging small and medium-sized businesses (Wiklund et al., 2010: 423). According to Wiklund et al. (2010: 433), financial indicators are frequently disparaged when used on new enterprises since these indicators are thought to be seeking to represent systems and processes that are not yet completely established at that stage of the enterprise. On the contrary, they discover that when it comes to failure, these financial indicators have the same explanatory power and consistency as mature organizations. As a result, Wiklund et al. (2010: 433) find in their sample of 30,000 new enterprises in Sweden from 1994 to 1996 that better profitability is related with a higher probability of survival. However, while Wiklund et al. (2010:427) define fledgling SMEs as businesses that have been in operation for less than seven years, this study defines nascent SMEs as businesses that have been in operation for less than five years. Generally, enterprises that are productive and financially strong have a negative correlation with failure (Park & Lee, 2019: 51). This study applies this concept to nascent SMEs, demonstrating that high profitability mitigates the liability of newness.

The findings regarding capital structure also support Wiklund et al. (2010: 427), who noted that designing an appropriate capital structure could help nascent small and medium enterprises to build a financial buffer against the liability of newness. A healthy capital structure ensures that available funds are used effectively. As a result, it prevents overcapitalization or undercapitalization, which can lead to firm failure.

Hypothesis $H_{01(a)}$ stated that Return on Equity is not a statistically significant predictor of solvency of nascent SMEs when measured in terms of Solvency Ratio. The results in table 5.11

indicate that Return on Equity significantly predicted Solvency Ratio, $\beta=0.520$, $t=13.660$, $p<0.05$. The null hypothesis is thus rejected, whereas the alternative hypothesis is accepted. As can be seen from table 5.11, the slope coefficient for return on equity is 0.482. The slope coefficient represents the change in the dependent variable for a one-unit change in the independent variable. As such, an increase in return on equity by one unit is associated with an increase in solvency ratio of 0.482 units. There is an increase in solvency ratio because the slope coefficient is positive. The multiple regression equation predicts that the higher the return on equity, the higher the solvency ratio. Hence return on equity may serve as a buffer against liability of newness. Table 5.11 also shows that the 95 per cent confidence interval (CI) is between 0.413 and 0.551. That is, we can be 95 per cent certain that the true value of the slope coefficient lies somewhere between these lower and upper bounds. The slope coefficient has a statistical significance level of $p < 0.05$. This means that the coefficient is statistically significantly different from 0 (zero). This also further confirms that there is a linear relationship in the population.

Hypothesis $H_{01(b)}$ stated that Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio. The results, as shown in the table, indicates that the relationship is not statistically significant as $p>0.05$. Hypothesis $H_{01(b)}$ is therefore accepted. This is consistent with other studies such as Rahman (2017:91). The return on assets (ROA) is a metric that assesses a company's capacity to pay for its assets with its net income (Gadoiu, 2014:89). As a result, it is an important profitability metric. Even while it can be thought of as an internal rate of return such that if higher than the cost of capital it suggests a higher company value (Stancu, 2007: 759), it does not account for debt. This may well explain why it has no statistically significant relationship with solvency ratio, which evaluates a company's capacity to pay its debt.

Hypothesis $H_{01(c)}$ stated that Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio. The results in the table show that Net Profit After Tax significantly predicted Solvency Ratio, $\beta = 0.070$, $t=2.671$, $p < 0.05$. As a result, the null hypothesis is rejected, whereas the alternative hypothesis is accepted. As shown in the table of results, the slope coefficient for Net Profit After Tax is 1.748E-6, and it is statistically significant, $p < 0.05$. The slope coefficient represents the change in the dependent variable for a one-unit change in the independent variable. As a result, an increase in Net Profit After Tax of one unit is associated with a small increase in solvency ratio of 1.748E-6 units. The 95 per cent confidence interval (CI) is also

shown in the results, ranging from 4.4 E-7 to 0.3 E-6. Despite being a statistically significant predictor of solvency, Net Profit After Tax has a very small effect on the liability of newness.

Hypothesis $H_{01(d)}$ stated that debt ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio. The results show that Debt Ratio significantly predicted Solvency Ratio, $\beta = -0.429$, $t = -7.974$, $p < 0.05$. As a result, the null hypothesis is rejected, while the alternative hypothesis is accepted. The slope coefficient for debt ratio is -0.247, as shown in the table. As a result, a one-unit decrease in debt ratio is associated with a 0.247-unit increase in solvency ratio. As such, as the debt ratio rises, the solvency ratio falls, and the liability of newness rises. A high debt ratio makes borrowing money and attracting investors harder. Lenders and investors frequently impose debt ratio limits and refuse to give more credit or investment to organizations that are overleveraged. As a result, embryonic SMEs with a high debt ratio may have cash flow challenges, making it impossible for them to remain solvent. Furthermore, high debt ratio means high interest expense and a further tightening of cash flow. This finding affirms Wiklund et al. (2010: 427), who noted that leverage represents high risk and insolvency. The table also shows that the 95 per cent confidence interval (CI) is between -0.308 and -0.186. That is, we can be 95 per cent certain that the true value of the slope coefficient lies somewhere between these lower and upper bounds. The slope coefficient has a statistical significance level of $p < 0.05$.

Hypothesis $H_{01(e)}$ stated that Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio. The results show that Debt to Equity Ratio significantly predicted Solvency Ratio, $\beta = 0.239$, $t = 17.534$, $p < 0.05$. As a result, while the null hypothesis is rejected, the alternative hypothesis is accepted. As shown in table, the debt-to-equity ratio slope coefficient is 0.038. As a result, a one-unit debt-to-equity increase is linked to a solvency ratio increase of 0.038 units. The solvency ratio, therefore, increases marginally as the debt-to-equity ratio increases. An appropriate debt-to-equity ratio is defined as the level of debt and equity that lowers the cost of capital while increasing profitability (Md Yusoff, 2017: 4). The results appear to show that an appropriate debt-equity mix increases solvency ratio and thus, albeit marginally, reduces the liability of newness. The 95 per cent confidence interval (CI) is shown in the table as being between 0.023 and 0.053. That is, we can be 95% confident that the true value of the slope coefficient lies between these lower and upper bounds. With a statistical significance level of $p < 0.05$, the slope coefficient is considered significant.

Hypothesis $H_{01(f)}$ stated that Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Solvency Ratio. The results show that Equity Ratio predicted Solvency Ratio significantly, $\beta = 0.573$, $p < 0.05$. As a result, the alternative hypothesis is accepted while the null hypothesis is rejected. In the model, the equity ratio had the highest beta coefficient. This means that when the variance explained by all other variables in the model is controlled for, this variable makes the strongest unique contribution to explaining the solvency ratio (dependent variable). The equity ratio slope coefficient is 0.398, as shown in table 5.11. As a result, a one-unit increase in the equity ratio is associated with a 0.398-unit increase in the solvency ratio. As the equity ratio rises, the solvency ratio rises significantly by nearly 0.40 units. There is an increase in solvency ratio because the slope coefficient is positive.

The multiple regression equation predicts that the higher the equity ratio, the higher the solvency ratio. Hence equity ratio may serve as a buffer against the liability of newness. The findings support (Yeo, 2016: 239) who noted that firms with positive cash flow are generally equity-financed and are solvent. SMEs that are mostly equity-financed have less encumbered assets, which can serve as collateral or buffer against insolvency if the occasion arises. Hence low leverage and high equity ratio reduce the possibility of nascent SME failure (Wiklund et al. 2010:427). Table 5.11 also shows that the 95 per cent confidence interval (CI) is between 0.354 and 0.443. That is, we can be 95 per cent certain that the true value of the slope coefficient lies somewhere between these lower and upper bounds. The slope coefficient has a statistical significance level of $p < 0.05$. This indicates that the coefficient is statistically significantly different from 0 (zero).

In summary, Return on Equity, Return on Assets, Net Profit After Tax, Debt Ratio, Debt to Equity Ratio, and Equity Ratio were used to predict Solvency Ratio using a multiple regression model. A scatter plot between the standardised residuals and the standardised predicted values of the dependent variables revealed linearity and homoscedasticity. As measured by tolerance values greater than 0.1 and VIF lesser than 10, there was no evidence of multicollinearity. There were no studentised deleted residuals with a standard deviation greater/lesser than ± 3 standard deviations, no leverage values greater than 0.2, and no Cook's distance values greater than 1. A P-P plot, skewness and kurtosis of -2 or $> +2$ of the variables indicated that the assumption of normality was met. The multiple regression model statistically significantly predicted Solvency Ratio, $F(8, 1021) = 203.874$, $P < 0.05$, adj. $R^2 = 0.612$. Except for Return

on Assets, all the variables added statistically significant to the prediction, $p < 0.05$. Table 5.11 shows the regression coefficients and standard errors.

Finally, the regression equation is derived from the nonstandard coefficients as follows:

$$\text{Predicted SR} = 0.048 + 1.748E-6(\text{NPAT}) + 0.482(\text{ROE}) - 0.247(\text{DR}) + 0.398(\text{ER}) + 0.038(\text{DER})$$

As a result, predicted values of Solvency Ratio can be calculated for a given set of values for Net Profit After Tax, Return on Equity, Debt Ratio, Equity Ratio, and Debt to Equity Ratio.

5.5.1.3 Summary of Hypothesised Relationships

For convenience, the results of the above-mentioned hypothesised relationships are summarised below. A summary of the decisions is presented as follows:

Table 5. 4--Hypothesised Relationships: Hypothesis 1

Hypotheses	Decision
H ₀₁ (Profitability, Capital Structure & SR)	Rejected
H _{01(a)} (ROE&SR)	Rejected
H _{01(b)} (ROA& SR)	Accepted
H _{01(c)} (NPAT& SR)	Rejected
H _{01(d)} (DR & SR)	Rejected
H _{01(e)} (DER & SR)	Rejected
H _{01(f)} (ER & SR)	Rejected

5.5.2 The Relationship Between Profitability, Capital Structure and Working Capital Ratio (Hypothesis 2)

Solvency was also examined in terms of working capital ratio to further understand whether capital structure and profitability influence the ability of the enterprise to meet obligations. As a result, a second regression model was developed. Working capital ratio determines a company's ability to quickly sell assets in order to raise cash (Yeo, 2016: 235). It is, therefore, an indication of the company's short-term solvency (Quesada-Pineda, 2019: 8). A high working capital ratio indicates a high level of liquidity. Current assets and current liabilities have an

impact on liquidity. When a company's most liquid assets are depleted, liquidity suffers. In such cases, insolvency may occur as liabilities and illiquid assets outnumber quick assets (Henry et al., 2012: 298).

The second regression model and hypotheses are discussed below. The following regression model estimates the relationship between profitability, capital structure, and solvency in terms of the working capital ratio:

$$WCR_i = \beta_0 + \beta_1 ROE_{i,1} + \beta_2 ROA_{i,2} + \beta_3 NPAT_{i,3} + \beta_4 DR_{i,4} + \beta_5 DER_{i,5} + \beta_6 ER_{i,6} + \beta_7 SIZE_{i,7} + \beta_8 SG_{i,8} + \epsilon_{i,i} \quad (2)$$

Where:

SR_i , is the Solvency Ratio for SME i in the population

WCR_i is the Working Capital Ratio for SME i in the population

NW_i , is the Net Worth for SME i in the population

ROE_i , is the Return on Equity for SME i in the population

ROA_i , is the Return on Assets for SME i in the population

$NPAT_i$, is the Net Profit after Tax for SME i in the population

DR_i , is the Debt Ratio for SME i in the population

DER_i is the Debt-to-Equity ratio for SME i in the population

ER_i , is the Equity Ratio for SME i in the population

$SIZE_i$, is the log of total assets for SME i the population

SG_i , is sales growth for SME i in the population

$\epsilon_{i,i}$ is the error term

The β 's are the coefficients for every independent variable.

The following are the null hypotheses that were formulated to achieve the objective of investigating the relationship between profitability, capital structure, and solvency as measured by the working capital ratio.

H_{02} : Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02(a)}: Return on Equity is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02(b)}: Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02(c)}: Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02 (d)}: Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02 (e)}: Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

H_{02 (f)}: Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio.

5.5.2.1 Multiple Regression Results for Hypothesis 2

The working capital ratio (WCR) was predicted using a multiple regression analysis based on net profit after tax (NPAT), return on assets (ROA), return on equity (ROE), debt ratio (DR), equity ratio (ER), and debt to equity ratio (DER). The findings are summarised in the table.

Table 5. 5- Multiple Regression Results for Hypothesis 2

WCR	B	95% CI for B		SEB	β	t	sig	R	R ²
		LL	UL						
								0.720	0.519
NPAT	-1.025E-5*	-1.7E-5	-0.3E-6	0.000	-.084*	-2.867	0.004		
ROA	-.741*	-1.447	-0.034	0.360	-0.078*	-2.058	0.040		
ROE	1.671*	1.293	2.049	0.193	0.369*	8.668	0.000		
DR	-1.645*	-1.977	-1.312	0.169	-.585*	-9.716	0.000		
ER	2.914*	2.671	3.158	3.158	0.124*	0.857	0.000		
DER	0.374*	0.289	0.458	0.043	0.481*	8.679	0.000		

*Note: B= Unstandardised Regression Coefficient; CI= Confidence Interval; LL= Lower Limit; UL= Upper Limit; SEB= Standard Error of the Coefficient; β = Standardised Coefficient of Determination. * $p < 0.05$*

5.5.2.2 Discussion of the Results

Hypothesis H₀₂ stated that Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio. The results, as shown in table 5.13, indicates that profitability and capital structure statistically significantly predicted solvency as measured in terms of working capital ratio, $F(8, 1021) = 137.558$, $p < 0.05$, $R = 0.720$. As a result, the null hypothesis is rejected, while the alternative hypothesis is accepted. The finding is expected, given that businesses with high profitability are expected to be able to avoid the liability of newness. On a sample of 150 Croatian SMEs, Kontus and Mihanovic (2019: 3255) investigated the management of liquidity and liquid assets and discovered a statistically significant association between liquidity and profitability. Firms must be profitable in order to meet their objectives and survive. Even though their study was not on nascent SMEs as is the emphasis of this study, Minemma and Anderson (2018: 61) employed OLS and LDA models on 130 Swedish management consulting businesses from 2012 to 2016 to demonstrate a positive relationship between liquidity and profitability. As Dhliwayo (2016: 10) points out, a company's survival is dependent on its profitability. Businesses that default are almost always unprofitable (Levratto, 2013:5) and nascent SMEs should be profitable to meet short term solvency. Hence solvency is a function of profitability because it contributes to a higher likelihood of nascent SME survival (Nunes, Viveiros & Serrasqueiro, 2012: 456).

In terms of capital structure, the finding in this study is also in line with Wiklund, Baker and Shepherd (2010: 427), who noted that designing an appropriate capital structure could help nascent small and medium enterprises to build a financial buffer against liability of newness. A negative association between liquidity and debt is to be expected, as a liquid corporation fulfils its obligations almost instantly. As a result, it comes to reason that liquidity is related to capital structure. It is also worth noting that access to external finance is often simple for liquid businesses whose financial characteristics meet the requirements of financial institutions and external equity providers. Furthermore, the trade-off theory contends that an ideal capital mix is defined by balancing the net cost of debt against the net cost of equity, the latter of which is primarily influenced by the debt tax shield (Ghasemi, & Ab Razak, 2016:131).

Hypothesis $H_{02(a)}$ stated that Return on Equity is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio. Table 5.13 shows that Return on Equity significantly predicted Working Capital Ratio, $\beta = 0.369$, $t = 8.668$, $p < 0.05$. As a result, the null hypothesis is rejected, while the alternative hypothesis is accepted. The slope coefficient for return on equity is 1.671, as shown in table 5.13. The slope coefficient denotes the change in the dependent variable caused by a one-unit change in the independent variable. As a result, a one-unit increase in return on equity corresponds to a 1.671 unit increase in working capital ratio. There is an increase in working capital ratio because the slope coefficient is positive. The multiple regression equation predicts that the higher the return on equity, the higher the working capital ratio. Hence return on equity may serve as a shield against liability of newness. Table 5.13 also shows that the 95 per cent confidence interval (CI) is between 1.293 and 2.049. That is, we can be 95 per cent certain that the true value of the slope coefficient lies somewhere between these lower and upper bounds. The slope coefficient has a statistical significance level of $p < 0.05$. This means that the coefficient is statistically significantly different from 0 (zero). This further demonstrates that there is a linear relationship in the population.

Hypotheses $H_{02(b)}$ stated that Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio. The results in the table show that Return on Assets significantly predicted Working Capital Ratio, $\beta = -0.078$, $t = -2.058$, $p < 0.05$. As a result, the null hypothesis is rejected, whereas the alternative hypothesis is accepted. As shown in the table of results, the slope coefficient for Return on Assets is -0.741, and it is statistically significant, $p < 0.05$. The slope coefficient denotes the change in the dependent variable caused by a one-unit change in the independent variable. As a result, an increase in Return on Assets of one unit is associated with a decrease in working capital ratio of 0.741 units. The 95 per cent confidence interval (CI) is also shown in the results, ranging from -1.447 to -0.034.

Hypotheses $H_{02(c)}$ stated that Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio. As seen in table 5.13, Net Profit After Tax significantly predicted Working Capital Ratio, $\beta = -0.084$, $t = -2.867$, $p < 0.05$. As a result, the null hypothesis is rejected, while the alternative hypothesis is accepted. As shown in the table of results, the slope coefficient for Net Profit After Tax is -1.025E-5, and it is statistically significant, $p < 0.05$. Therefore, an increase in Net Profit After Tax by one-unit results in a minimal decrease of working capital

ratio by $-1.025\text{E-}5$. Per the confidence interval, there is a 95 per cent chance that the slope lies between $-1.7\text{E-}5$ and $-0.3\text{E-}6$.

Hypothesis $H_{02(d)}$ stated that Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio. As seen in table 5.13, debt ratio significantly predicted Working Capital Ratio, $\beta = -0.585$, $t = -9.716$, $p < 0.05$. As a result, the null hypothesis is rejected, while the alternative hypothesis is accepted. As shown in the table of results, the slope coefficient for Debt Ratio is -1.645 and it is statistically significant, $p < 0.05$. Therefore, an increase in Debt Ratio by one-unit results in a decrease of Working Capital Ratio by -1.645 . As stated by Lipson and Mortal (2009:612), to the degree that capital structure decisions trade-off the net tax benefit of debt against the net cost of equity, more liquid firms are those that deploy proportionally more equity financing and are less leveraged. The finding of this study which indicates that an increase in debt ratio results in a decline in working capital ratio, is in line with findings from previous studies. For example, Wiklund et al. (2010: 427) noted that leverage, which is an indicator of the extent to which non-equity funding is used as an indicator of claims on future cash flow represents high risk and insolvency. Mclean and Palazzo (2017: 1) also noted that many businesses that use debt do so because they are cash-strapped, and liquidity squeezed. Per the confidence interval, there is a 95 per cent chance that the slope lies between -1.977 and -1.312 . The debt ratio had the highest beta coefficient in the model. This means that after controlling for the variance explained by all other variables in the model, this variable makes the strongest unique contribution to explaining the working capital ratio (dependent variable). This study shows that in terms of short-term solvency, debt has the most significant impact.

Hypothesis $H_{02(e)}$ stated that Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio. The results show that Debt to Equity Ratio significantly predicted Working Capital Ratio, $\beta = 0.481$, $t = 8.679$, $p < 0.05$. As a result, while the null hypothesis is rejected, the alternative hypothesis is accepted. The debt-to-equity ratio slope coefficient is 0.374 , as shown in the table. As a result, a one-unit increase in debt-to-equity is associated with a 0.374 -unit increase in working capital ratio. As the debt-to-equity ratio rises, so does the working capital ratio. The findings appear to indicate that an appropriate debt-equity mix raises the working capital ratio and thus lowers the liability of newness. Table 5.13 shows the 95 per cent confidence interval (CI) as being between 0.289 and 0.458 . That is, we can be 95% confident

that the true value of the slope coefficient lies between these lower and upper bounds. With $p < 0.05$, the slope coefficient is considered statistically significant.

Hypothesis $H_{02(f)}$ stated that Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Working Capital Ratio. The results show that Equity Ratio predicted Working Capital Ratio significantly, $\beta = 0.124$, $t=0.857$, $p < 0.05$. As a result, the alternative hypothesis is accepted while the null hypothesis is rejected. The equity ratio slope coefficient is 2.914, as shown in table 5.13. As a result, a one-unit increase in the equity ratio is associated with a 2.914-unit increase in the working capital ratio. The multiple regression equation predicts that the higher the equity ratio, the higher the working capital ratio. Hence equity ratio may serve as a buffer against the liability of newness. Firms with a high equity ratio are not too leveraged but use a reasonably high amount of equity, which in this study's sample is internal equity. Internal equity provides financial stability to firms by acting as a safety net for unanticipated expenses. Unlike debt, firms that use a reasonably high amount of internal equity would not have to worry about interest payments that would deplete their cash flow. As a result, the ability to pay short-term commitments by using equity is enhanced. Table 5.13 also shows that the 95 per cent confidence interval (CI) is between 2.671 and 3.158. That is, we can be 95% confident that the true value of the slope coefficient is somewhere in between these lower and upper bounds. The slope coefficient has a statistical significance level of $p < 0.05$. This specifies that the coefficient is statistically significantly different from 0 (zero).

To summarise, a multiple regression model was used to predict Working Capital Ratio using Return on Equity, Return on Assets, Net Profit After Tax, Debt Ratio, Debt to Equity Ratio, and Equity Ratio. Linearity and homoscedasticity were revealed by a scatter plot of the standardised residuals and the standardised predicted values of the dependent variables. There was no evidence of multicollinearity as measured by tolerance values greater than 0.1 and VIF less than 10. There were no studentised deleted residuals with standard deviations greater or less than three standard deviations, no leverage values greater than 0.2, and no Cook's distance values greater than one. A P-P plot, skewness, and kurtosis of -2 or $> +2$ of the variables indicated that the assumption of normality was met. The multiple regression model predicted Working Capital Ratio statistically significantly, $F(8, 1021) = 137.558$, $P < 0.05$, $\text{adj. } R^2 = 0.519$. All the variables contributed statistically significant information to the prediction, $p < 0.05$. The regression coefficients and standard errors are shown in Table 5.13. The Debt Ratio had the highest beta coefficient in the model, indicating that it made the strongest unique contribution

to explaining the working capital ratio after controlling for the variance explained by all other variables in the model.

Finally, the regression equation is derived from the nonstandard coefficients as follows:

$$\text{Predicted WCR} = 0.058 - 1.025E-5(\text{NPAT}) - 0.741(\text{ROA}) + 1.671(\text{ROE}) - 1.645(\text{DR}) + 2.914(\text{ER}) + 0.374(\text{DER})$$

Consequently, for a given set of Net Profit After Tax, Return on Equity, Return on Assets, Debt Ratio, Equity Ratio, and Debt to Equity Ratio values, values of Working Capital Ratio can be estimated.

5.5.2.3 Summary of Hypothesised Relationships

The results of the hypothesised relationships mentioned above are summarised hereunder for convenience. The following are presented as a summary of the decisions:

Table 5. 6- Hypothesised Relationships Regression Equation 2

Hypotheses	Decisions
H ₀₂ (Profitability, Capital Structure & WCR)	Rejected
H _{02(a)} (ROE & WCR)	Rejected
H _{02(b)} (ROA & WCR)	Rejected
H _{02(c)} (NPAT & WCR)	Rejected
H _{02(d)} (DR&WCR)	Rejected
H _{02(e)} (DER & WCR)	Rejected
H _{02(f)} (ER & WCR)	Rejected

5.5.3 The Relationship Between Profitability, Capital Structure and Net Worth (Hypothesis 3)

Finally, we looked at solvency in terms of net worth to see if capital structure and profitability have an impact on a company's total assets exceeding its total liabilities. As a result of this, a third regression model was created. When total liabilities exceed a reasonable valuation of the company's assets, the company becomes insolvent (Almansour, 2015: 118; Power, 2015: 46). In that case, net worth is considered negative, and businesses with negative net worth are more

likely to fail (Yeo, 2016: 237). To be considered solvent, a company must have more total assets than total liabilities (Powers, 2015: 46). The following sections go over the regression model and hypotheses that ensued. In terms of the net worth, the resulting regression model estimates the relationship between solvency, profitability and capital structure as follows:

$$NW_i = \beta_0 + \beta_1 ROE_{i,1} + \beta_2 ROA_{i,2} + \beta_3 NPAT_{i,3} + \beta_4 DR_{i,4} + \beta_5 DER_{i,5} + \beta_6 ER_{i,6} + \beta_7 SIZE_{i,7} + \beta_8 SG_{i,8} + \epsilon_i, \quad (3)$$

Where:

NW_i , is the Net Worth for SME i in the population

ROE_i , is the Return on Equity for SME i in the population

ROA_i , is the Return on Assets for SME i in the population

$NPAT_i$, is the Net Profit after Tax for SME i in the population

DR_i , is the Debt Ratio for SME i in the population

DER_i is the Debt-to-Equity ratio for SME i in the population

ER_i , is the Equity Ratio for SME i in the population

$SIZE_i$, is the log of total assets for SME i the population

SG_i , is sales growth for SME i in the population

$\epsilon_{i,t}$ is the error term

The β 's are the coefficients for every independent variable.

To achieve the objective of investigating the relationship between profitability, capital structure, and solvency as measured by net worth, a number of hypotheses were proposed. The following are the null hypotheses:

H_{03} : Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent small and medium enterprises as measured in terms of Net Worth.

$H_{03(a)}$: Return on Equity is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

$H_{03(b)}$: Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(c)}: Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(d)}: Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(e)}: Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

H_{03(f)}: Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net Worth.

5.5.3.1 Multiple Regression Results for hypothesis 3

The Net Worth was predicted using a multiple regression analysis based on net profit after tax (NPAT), return on assets (ROA), return on equity (ROE), debt ratio (DR), equity ratio (ER), and debt to equity ratio (DER). The findings are summarised in table 5.15.

Table 5. 7- Multiple Regression Results for hypothesis 3

NW	B	95% CI for B		SEB	β	t	sig	R	R ²
		LL	UL						
								0.309	0.096
NPAT	0.112	-0.029	0.253	0.072	0.062	1.558	0.120		
ROA	1262.098	-1601.434	26857.630	7251.492	0.090	1.741	0.082		
ROE	-10855.618*	-18473.898	-3237.398	3882.341	-.163*	-2.796	.005		
DR	-8595.292*	-15284.069	-1906.516	3408.658	-.208*	-2.522	0.012		
ER	15254.437*	10348.881	20159.993	2499.914	0.305*	6.102	0.000		
DER	5162.745*	3461.032	6864.459	867.208	0.452*	5.953	0.000		

Note: B= Unstandardised Regression Coefficient; CI= Confidence Interval; LL= Lower Limit; UL= Upper Limit; SEB= Standard Error of the Coefficient; β = Standardised Coefficient of Determination. * $p < 0.05$

5.5.3.2 Discussion of the Results

The following subparagraphs discuss each hypothesis and how the results support the propositions made in relation to the hypothesis.

Hypothesis H_{03} stated that Profitability and Capital Structure do not have a statistically significant relationship with the solvency of nascent small and medium enterprises as measured in terms of Net Worth. The results, as shown in table 5.15, indicate that profitability and capital structure statistically significantly predicted solvency as measured by net worth, $F(8, 1021) = 13.480$, $p < 0.05$, $R = 0.309$. As a result, while the null hypothesis is rejected, the alternative hypothesis is accepted. The finding adds to the expectation that businesses with high profitability will be able to avoid the liability of newness. According to Zizi, Oudgou and El Moudden (2020:107), after studying 90 SMEs in Morocco's Fez-Meknes region, economic failure of a business is characterized by a decline in profitability. This is confirmed by studies such as Geng et al. (2015), which show that profitability is a key factor in the early prediction of Chinese corporate failures.

This finding is also consistent with Modigliani and Miller's (1963) revised proposition, according to which debt levels have an impact on the firm's value. However, Modigliani and Miller (1963) concentrated on the market value of large established organizations, whereas this current study focuses on the book value of emerging small and medium-sized businesses. The findings of this study are also consistent with those of Minnema and Anderson (2018), who used a quantitative method to investigate the capital structure and profitability of 130 management consulting firms in Sweden from 2012 to 2016 and concluded that capital structure has an impact on the firm's value. In many situations businesses fail when the company's available assets are insufficient to cover liabilities (Zizi, Oudgou, & El Moudden, 2020:107). As a result, this study shows that an appropriate capital structure can improve the net worth of SMEs and thereby prevent failure. As was indicated by Thavikulwat (2004:210), the value of the firm can be determined *inter alia* with measures such as net worth.). As such the findings of this study show that sound capital structure increases the value of SMEs. This study has shown that not only is capital structure important for the value of large firms as posited in the revised Modigliani and Miller (1963) theory, but it is also critical for the value of fledgling small and medium enterprises, and thus for mitigating the liability of newness.

Hypothesis $H_{03(a)}$ stated that Return on Equity is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net worth. Table

5.15 shows that Return on Equity significantly predicted Net worth, $\beta = -0.163$, $t = -2.796$, $p < 0.05$. As a result, the null hypothesis is rejected, while the alternative hypothesis is accepted. The slope coefficient for return on equity is -10855.618, as shown in the table. This indicates that a one-unit increase in return on equity corresponds to a 10855.618 unit decrease in net worth. There is a decrease in net worth because the slope coefficient is negative. Return on Equity (ROE) represents a company's annual return (net income) divided by the value of its total shareholders' equity (net worth). Hence it stands to reason that there is an inverse relationship between ROE and net worth as shown in this finding. Table 5.15 also shows that the 95 per cent confidence interval (CI) is between -18473.898 and -3237.398. That means we can be 95 per cent certain that somewhere between this lower and upper limit is the true value of the slope coefficient. The slope coefficient has a statistical significance level of $p < 0.05$.

Hypothesis $H_{03(b)}$ stated that Return on Assets is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of net worth. The results, as shown in table 5.15, indicates that the relationship is not statistically significant as $p > 0.05$. Hypothesis $H_{03(b)}$ is therefore accepted. This finding is consistent with other studies such as Rohmawati and Shenurti (2020:84), who found that Return on Assets has no significant effect on a firm's book value after studying the influence of financial performance and corporate social responsibility on the value of a firm. Return on Assets is asset dependent. It assesses how well the company uses its assets, as opposed to ROE, which assesses how well the company uses owner funds. The difference between a company's total assets and total liabilities is its book value. As such, it reflects owner funds, and because ROA does not consider owners' equity, or the company's net worth, this study finds no significant association between them.

Hypothesis $H_{03(c)}$ stated that Net Profit After Tax is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of Net worth. As seen in table 5.15 the relationship is not statistically significant as $p > 0.05$. Hypotheses $H_{03(c)}$ is therefore accepted. According to Anandarajan et al. (2006:83), when assets are not adjusted for inflation, the book value of an enterprise differs from its market value. As such, in countries that use an accounting treatment that bases book value information mostly on original cost, there is little correlation with synchronous market pricing (Anandarajan et al. 2006:83). Ghana is one such country. This explains why net profit after tax for this study's sample does not statistically predict net worth. Furthermore, net profit, which is derived from the income statement, gives a value indicator that accurately reflects the company's current utilisation of

resources. The balance sheet's book value gives information on the firm's net value in regards of its resources based on historical market prices. As such current earnings of the firm is mostly independent of the firm's book value (Burgstahler & Dichev, 1997:188).

Hypothesis $H_{03(d)}$ stated that Debt Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of net worth. The results show that Debt Ratio predicted net worth significantly, $\beta = -0.208$, $t = -2.522$, $p < 0.05$. As a result, the alternative hypothesis is accepted while the null hypothesis is rejected. In the model, the debt ratio slope coefficient is -8595.292, as shown in table 5.15. Table 5.15 also shows that the 95 per cent confidence interval (CI) is between -15284.069 and -1906.516. That means we can be 95% confident that the true value of the slope coefficient is somewhere between these lower and upper limits. The slope coefficient has a statistical significance level of $p < 0.05$. As a result, a one-unit increase in the debt ratio is associated with an 8595.292 unit decrease in net worth. There is a decrease in net worth because the slope coefficient is negative. The multiple regression equation predicts that the higher the debt ratio, the lower the net worth. Hence the higher the leverage the higher the possibility of insolvency owing to diminishing net worth. This finding lends credence to Doorasamy (2021: 26), who showed that leverage has a significantly negative impact on the value of firms, further demonstrating that that higher debt would result in a decrease of firm value.

Hypothesis $H_{03(e)}$ stated that Debt to Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of net worth. The results show that Debt to Equity Ratio significantly predicted net worth, $\beta = 0.452$, $t = 5.953$, $p < 0.05$. As a result, while the null hypothesis is rejected, the alternative hypothesis is accepted. The debt-to-equity ratio slope coefficient is 5162.745, as shown in table 5.15. As a result, a one-unit increase in debt-to-equity is associated with a 5162.745 unit increase in net worth. The 95 per cent confidence interval (CI) is shown in the table to be between 3461.032 and 6864.459. That is, we can be 95% confident that the true value of the slope coefficient is somewhere between these lower and upper bounds. With $p < 0.05$, the slope coefficient is considered statistically significant. This finding buttresses Mat Nawi's (2015: 52) contention that small and medium-sized businesses require an appropriate mix of equity and debt to boost productivity. Sing and Bagga (2019: 65) also stated that while firms can choose between debt and equity, the best financing option is a combination of the two. In the model, the debt-to-equity ratio had the highest beta coefficient. This means that after controlling for the variance

explained by all other variables in the model, this variable contributes the most to explaining the net worth of nascent small and medium enterprises.

Hypothesis $H_{03(f)}$ stated that Equity Ratio is not a statistically significant predictor of solvency of nascent small and medium enterprises as measured in terms of net worth. The results show that Equity Ratio predicted net worth significantly, $\beta = 0.305$, $t=6.109$, $p < 0.05$. As a result, the alternative hypothesis is accepted while the null hypothesis is rejected. The equity ratio slope coefficient is 15254.437, as shown in table 5.15. As a result, a one-unit increase in equity ratio is associated with a 15254.437 unit increase in net worth. The multiple regression model predicts that the higher the equity ratio, the higher the net worth. Hence equity ratio may serve as a buffer against the liability of newness through its direct relationship with the value of the enterprise. Table 5.15 also shows that the 95 per cent confidence interval (CI) is between 10348.881 and 20159.993, a 95% confidence that the true value of the slope coefficient is somewhere in between these lower and upper bounds. The slope coefficient has a statistical significance level of $p < 0.05$. This specifies that the coefficient is statistically significantly different from 0 (zero).

To summarise, a multiple regression model was used to predict Net Worth by considering Return on Equity, Return on Assets, Net Profit After Tax, Debt Ratio, Debt to Equity Ratio, and Equity Ratio. A scatter plot of the standardised residuals and the standardised predicted values of the dependent variables revealed the presence of linearity and homoscedasticity. As measured by tolerance values greater than 0.1 and VIF less than 10, there was no evidence of multicollinearity. There were no studentised deleted residuals with standard deviations greater or less than three standard deviations, no leverage values more than 0.2, and no Cook's distance values more than one. A P-P plot, skewness and kurtosis of -2 or $> +2$ of the variables indicated that the assumption of normality was met. The multiple regression model predicted Net Worth statistically significantly, $F(8, 1021) = 13.480$, $P < 0.05$, $\text{adj. } R^2 = 0.096$. Apart from Net Profit After Tax and Return on Assets, all the variables contributed statistically significant information to the prediction, $p < 0.05$. The regression coefficients and standard errors are shown in Table 5.15. The Debt-to-Equity Ratio had the highest beta coefficient in the model, indicating that it made the strongest unique contribution to explaining the net worth after controlling for the variance explained by all other variables in the model.

Finally, using the nonstandard coefficients, the regression equation is derived as follows:

$$\text{NW} = 43836.357 - 10855.618 (\text{ROE}) - 8595.292 (\text{DR}) + 15254.437 (\text{ER}) + 5162.745 (\text{DER})$$

As a result, Net Worth can be estimated for a given set of Return on Equity, Debt Ratio, Equity Ratio, and Debt to Equity Ratio values based on the above regression equation.

5.5.3.3 Summary of Hypothesised Relationships

For convenience, the outcomes of the above-mentioned hypothesised relationships are summarised below. As a summary of the decisions, the following are presented:

Table 5. 86- Hypothesised Relationships for Regression Equation 3

Hypotheses	Decisions
H ₀₃ (Profitability, Capital Structure & NW)	Rejected
H _{03(a)} (ROE& NW)	Rejected
H _{03(b)} (ROA& NW)	Accepted
H _{03(c)} (NPAT & NW)	Accepted
H _{03(d)} (DR & NW)	Rejected
H _{03(e)} (DER& NW)	Rejected
H _{03(f)} (ER& NW)	Rejected

5.6 COMPARING THE REGRESSION MODELS

After fitting three different regression models to the given data set in this study, there must be a criterion by which they can be compared. This way, we could learn more about how entrepreneurs can effectively minimise the liability of newness and avoid insolvency. Hence the three regression models were compared such that the parameters that contribute the most to solvency could be identified. To compare the three regression models, the adjusted R^2 was used. When comparing different models with at least one distinct parameter, the use of the adjusted R^2 becomes necessary (Fávero & Belfiore, 2019: 470). The adjusted R^2 is a goodness-of-fit measure in multiple regression analysis that penalises additional explanatory variables by estimating the error variance with a degree of freedom adjustment (Wooldridge, 2012:844). The model with the highest adjusted R^2 will have the lowest regression standard error, and it can therefore be used to rank regression models. The higher the adjusted R^2 , the better the

model fit (Figueiredo, Jnior, & Rocha, 2011:67). The adjusted R^2 is used to estimate the effect size (Laerd, 2015:16). Cohen (1988:79) considers an absolute value of r of 0.1 to be small, 0.3 to be medium, and 0.5 to be large. As can be seen in table 4.18, the adjusted R^2 in regression model 1 was 61.2 per cent, indicating a large effect according to Cohen (1988:79). The adjusted R^2 in model 2 was 51.5 per cent, indicating a large effect size according to Cohen (1988:79). In model 3, the adjusted R^2 was 8.8 per cent, indicating a small effect size in the Cohen (1988:79) classification. Thus, based on the adjusted R^2 , model 1 is preferred over the other models because it best accounts for the variance in solvency.

Table 5. 97- Model Comparison

Model	R	R²	Adjusted R²	F
1	0.784	0.615	0.612	203.874
2	0.720	0.519	0.515	137.558
3	0.309	0.096	0.088	13.480

1. *Dependent Variable: Solvency Ratio*

2. *Dependent Variable: Working Capital Ratio*

3. *Dependent Variable: Net Worth*

Predictors: Return on Assets, Return on Equity, Net Profit After Tax, Debt Ratio, Debt to Equity Ratio, Equity Ratio.

5.7 COMPARING THE CONTRIBUTION OF THE PARAMETERS IN REGRESSION MODEL 1

To completely understand how profitability and capital structure can help prevent insolvency, the variable(s) that makes the strongest unique contribution to explaining the solvency ratio, when the variance explained by all other variables in the model is controlled for, was identified. The explanatory power of the dependent variable can be directly compared between coefficients using standardised regression coefficients. Unlike regression coefficients which are expressed in terms of the associated variable's units, Beta coefficients use standardised data and can be directly compared (Hair et al., 2010:153). We can see which beta value is the highest (ignoring any negative signs at the start) and which beta value is the lowest by scrolling down the Beta column in table 5.18.

Table 5. 10-Evaluating the Dependent Variables in Model 1

Parameter	Beta	Sig
Net Profit After Tax	0.070	0.008
Return on Assets	0.066	0.053
Return on Equity	0.520	0.000
Debt Ratio	-.429	0.000
Debt to Equity Ratio	0.239	0.000
Equity Ratio	0.573	0.000

From table 5.18, the largest beta coefficient is 0.573, which is for Equity Ratio. This means that this variable makes the strongest statistically significant unique contribution to explaining the dependent variable when the variance explained by all other variables in the model is controlled. A higher Equity Ratio leads to a Higher Solvency Ratio. This shows that funding nascent SMEs with equity has advantages regarding liability of newness compared to debt. Generally, firms with a high Equity Ratio have a lower debt ratio and are less likely to be insolvent (Situm, 2014: 30). The SMEs that formed the fulcrum of this study hardly have access to external equity markets. Hence equity funding in this instance mainly refers to inside financing such as retained earnings. This finding clearly supports the pecking order theory, which advocates for firms to first rely on internal resources before seeking external resources if additional funds are required. As posited by Royer (2017: 395), there are significant benefits to using retained earnings to fund businesses that traditional equity financing methods do not provide. It is such an important source of funding that the sooner the organisation ploughs back profits, the higher its prospects of growth (Brigham & Houston, 2021:67). Return on Equity (ROE) also makes a very strong statistically significant unique contribution to explaining Solvency Ratio even though its Beta value was slightly lower (0.520) than Equity Ratio. The importance of ROE is buttressed by Brigham and Houston (2021:108), who stated that the most important or “bottom line” accounting ratio is the ROE. ROE is the most comprehensive measure of a company's profitability. It considers the operating and investing decisions made as well as the financing and tax-related decisions (Liesz, 2002:3). Business owners should, as

a result, make operating and financial decisions within a framework of how that decision will impact ROE. As such, businesses that develop straightforward strategies to enhance ROE will limit the liabilities of newness. Such strategies as suggested by Liesz (2002) include:

- Boosting operating profits by increasing sales (in a greater proportion than the cost of generating those sales) or cutting expenses
- Becoming more efficient by increasing sales with the same amount of assets or producing the same amount of sales with fewer assets
- Using debt wisely by controlling the cost of borrowing or refinancing an existing loan at a lower interest rate, thereby reducing interest expenses and, as a result, increase ROE.

In summary, business owners should target a high Return on Equity and use relatively more internal equity than debt or external equity to mitigate the liability of newness. This guideline is especially significant because, according to Liesz and Maranville (2008:18), citing the Dun & Bradstreet Business Failure Records, “poor financial practices” are second only to “economic conditions” as a cause of business failures.

5.8 CHAPTER SUMMARY

This chapter provided a detailed account of the data analysis procedures carried out and the results obtained. Before the study's hypotheses were tested, the data was subjected to a series of statistical analyses. Because multiple regression analysis was chosen to analyse the data, ensuring that the data could actually be analysed using this test was a critical part of the process. The multiple regression assumptions were tested to ensure the accuracy of the predictions and to see how well the regression model fit the data. The overarching objective of this study was to test for the statistically significant relationship between Capital Structure, Profitability and Solvency. Solvency was operationalised as Solvency Ratio, Working Capital Ratio and Net worth. Three regression equations were formulated as a result. Testable hypotheses on the three regression equations were developed.

Return on Equity, Net Profit After Tax, Debt Ratio, Debt to Equity Ratio, and Equity Ratio were determined to be significant predictors of Solvency Ratio. Return on Equity, Return on Assets, Net Profit After Tax, Debt Ratio, Debt to Equity Ratio, and Equity Ratio were all determined to be significant predictors of Working Capital Ratio. Return on Equity, Debt Ratio, Equity Ratio, and Debt to Equity Ratio were found to be significant predictors of Net worth. In comparison to the other regression models, regression model 1 was found to best account

for the variance in solvency based on adjusted R^2 . An examination of the Beta values in regression model 1 revealed that Return on Equity and Equity Ratio contributed the most to explaining Solvency. Small business owners should thus target a high Return on Equity and use more internal equity to fend off the liability of newness. Capital structure theory is a largely settled theoretical field (Pretorius, 2013:546), but combining it with the concept of liability of newness allows us to demonstrate how the right financing decision facilitates nascent SME growth and survival. In chapter five, the conclusion and recommendation, as well as their managerial implications are presented.



CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter discusses the implications of the findings of the study. Following that, conclusions are established, and recommendations are made based on the evidence. This chapter also discusses the study's research limitations. There appears to be a very little theoretical link between profitability, capital structure, and the liability of newness of small and medium enterprises in the extant literature. Most studies have prioritised publicly traded corporations above unlisted small and medium businesses (Yazdanfar & Ohman, 2015:1). Because the majority of capital structure research focuses on large publicly traded corporations, it was important to apply capital structure theories to small and medium-sized organizations. As a result, as stated in Chapter 1, the primary goal of this study was to determine the impact of profitability and capital structure on the solvency of nascent small and medium enterprises. As a result, this study contributes to closing the research gap.

The overall research aim in this study was to investigate the impact of capital structure and profitability on the survival of SMEs. Because the study was based on capital structure theories and the liabilities of newness framework, the findings were expected to provide empirical support for these theories. This study provides evidence to support the pecking order theory. The solvency construct was broken down into three components: solvency ratio, working capital ratio, and net worth. The debt-to-equity ratio, debt ratio, and equity ratio were used to assess capital structure. Profitability was calculated using the following metrics: return on equity, return on assets, and net profit after tax. The study provides empirical evidence on the individual impact of the capital structure and profitability metrics on each of the solvency metrics. The overall effect of profitability and capital structure on each of the solvency metrics was also determined.

6.2 RESEARCH OBJECTIVES AND THE RESULTS OF THE STUDY

The main objective of the study was to show that there is empirical evidence to support the idea that capital structure and profitability are critical for the survivability of small and medium businesses and that smart capital structure decisions and profitability reduce the impact of liability of newness. The study's main objective was broken down into three secondary goals. The sub-objectives were used to form hypotheses. They show that the study's objectives were met in accordance with the data analysis performed in the previous chapter. The sections that

follow examine the findings in relation to the twenty-one research objectives and research hypotheses that were developed in this study.

6.2.1 Profitability, Capital Structure and Solvency Ratio

According to the literature, profitability and capital structure are important determinants in the solvency of small and medium firms. Hence, they were included in this study. The first objective was outlined as follows:

- *To establish the impact of profitability and capital structure on solvency ratio of nascent small and medium enterprises*

The findings of this study support the premise that profitability and capital structure have a substantial impact on the solvency of nascent small and medium firms as evaluated by the solvency ratio. Enterprises that are profitable have a negative correlation with failure (Park & Lee, 2019: 51). Additionally, nascent SMEs that create an appropriate capital structure create a financial buffer against the liability of newness (Wiklund et al. 2010: 427). Hence this study concludes that small and medium enterprises boost their solvency ratio and so remain solvent and develop buffers against the liability of newness by enabling the creation of an appropriate capital structure and staying profitable.

The following findings were also made:

- Return on equity strongly predicts the solvency ratio of nascent small and medium enterprises.
- Return on assets cannot predict the solvency ratio of nascent small and medium enterprises.
- Net profit after tax strongly predicts the solvency ratio of nascent small and medium enterprises.
- Debt ratio strongly predicts the solvency ratio of nascent small and medium enterprises.
- Debt-to-equity ratio is able to predict solvency ratio of nascent small and medium firms.
- Equity ratio is able to predict solvency ratio of nascent small and medium firms.

To summarise, whereas one component of profitability (ROA) was shown not to be a significant predictor of solvency ratio, profitability and capital structure were found to have a significant impact on solvency ratio on a multivariate level. As a result, objective 1 was met. The results are depicted in the predictive model of solvency ratio from profitability and capital

structure, which is presented below in figure 6.1. When the variation explained by all other factors in the model is controlled, the equity ratio makes the strongest statistically significant unique contribution to explaining the solvency ratio, as demonstrated on the predictive model. This is followed closely by return on equity.

A higher equity ratio translates into a higher solvency ratio. This demonstrates that when compared to debt, supporting nascent SMEs with equity provides advantages in terms of liability of newness. Firms with a high equity ratio typically have a lower debt ratio and are less likely to be insolvent (Situm, 2014: 30). The SMEs at the heart of this study have limited access to external equity markets. As a result, equity investment in this context primarily refers to internal finance which is principally retained earnings. This study finds that using retained earnings help mitigate the liability of newness. The study, therefore, supports the pecking order theory, which advocates for enterprises to first rely on internal resources before seeking external resources for extra funding.

The findings of this study are consistent with (Thuranira, 2014: 2), who stated that retained earnings have the advantage of encouraging firm growth because the more a company invests, the faster it grows. Because the more capital a company invests, the faster it grows, retained earnings provide the advantage of driving firm expansion (Thuranira, 2014: 2). Profit reinvestment enables businesses to grow faster. When a company grows at a faster rate, it minimises the probability of insolvency.

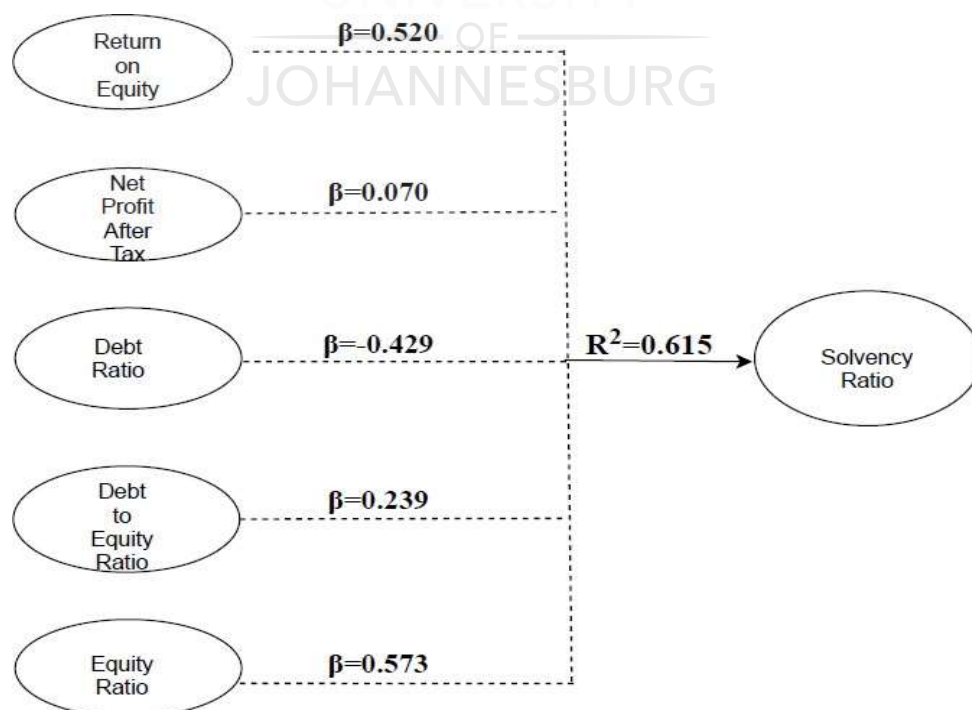


Figure 6. 1-Predictive Model of Solvency Ratio from Profitability and Capital Structure

The findings of this study also show that return on equity (ROE) makes a statistically significant contribution to explaining the variance in solvency ratio. It recorded a beta value that was only slightly lower (0.520) than equity ratio. Hence, the study shows that SMEs that have a high ROE, have a high solvency ratio. This is consistent with Brigham and Houston's (2021:108) assertion that the ROE is the most essential, or "bottom line," accounting ratio. It is also in accordance with Levratto (2013: 5), who indicated that defaulting businesses are almost always unprofitable. This study, therefore, recommends that entrepreneurs should make operational and financial decisions with an eye toward how those actions will affect ROE. As a result, organisations that adopt straightforward ways to improve ROE will limit the risks associated with liability of newness.

Results from this study show that businesses must be profitable in order to survive and reduce the liability of newness. As important as the ROE is, a high ROE is dependent on sustaining liquidity, efficient asset management, and the right use of debt (Brigham & Houston, 2021:108). As a result, liquidity, as measured by the working capital ratio in this study, is crucial in a company's goal to lower the liability of newness. To ensure a high ROE and a better probability of survival, nascent SMEs should be liquid.

Nascent small and medium enterprises should also use a relatively small amount of assets to generate sales. In doing so, they will be using their assets efficiently. It is important to note that efficient asset management is measured by the total assets turnover ratio, which is a firm's total sales divided by its total assets (Hofstrand, 2013:1). A high total asset turnover ratio indicates that the company has a comparatively higher volume of sales than assets. A high total asset turnover ratio equates to high profitability (Nurlaela et al. 2019:300).

In keeping with Brigham and Houston's (2021:108) advice for enterprises to use debt wisely to attain, this study suggests that nascent SMEs only employ debt when internal equity is depleted. As previously noted, the study supports the pecking order theory, which advises businesses to first rely on internal resources before seeking external finance. According to Abor (2017: 21), a good funding strategy can change the venture's chances of survival and success. As found in this study, a good funding strategy is for nascent SMEs to follow the pecking order theory to ensure survival and mitigate the liability of newness. Hence the current study has extended the utility of the pecking order theory to nascent SMEs as it is relevant for their survival and for the mitigation of the liability of newness.

6.2.2 Profitability, Capital Structure and Working Capital Ratio

The position adopted in this study was that the short-term solvency of nascent small enterprises is as important as long-term solvency in the liability of newness discussion. Hence whilst long term solvency was measured by solvency ratio, short term solvency was measured by the working capital ratio. Working capital ratio demonstrates a company's ability to satisfy its current liabilities with current assets (Hofstrand, 2013:1).

In that context, the following objective was developed:

To establish the impact of profitability and capital structure on working capital ratio of nascent small and medium enterprises.

The findings of this study support the hypothesis that profitability and capital structure have a significant impact on the solvency of nascent small and medium firms as evaluated by the working capital ratio. As a result, this study shows that for small and medium businesses to increase their working capital ratio in order to remain liquid and establish buffers against the liability of newness, they have to ensure the creation of an appropriate capital structure and stay profitable.

The following findings were also made:

- Return on equity strongly predicts working capital ratio of nascent small and medium enterprises.
- Return on assets strongly predicts working capital ratio of nascent small and medium enterprises
- Net profit after tax strongly predicts working capital ratio of nascent small and medium enterprises.
- Debt ratio strongly predicts working capital ratio of nascent small and medium enterprises.
- Debt to equity ratio is able to predict working capital ratio of nascent small and medium firms.
- Equity ratio is able to predict working capital ratio of nascent small and medium firms.

To summarise, on a univariate level, all elements of profitability and capital structure were found to be significant predictors of working capital ratio. Furthermore, on a multivariate level, profitability and capital structure were found to have a significant impact on working capital ratio. As a result, objective two was met. The results are illustrated in figure 6.2, which is a predictive model of working ratio from profitability and capital structure. When the variation

explained by all other factors in the model is controlled, the debt ratio (-0.585) makes the strongest statistically significant unique contribution to explaining the working capital ratio, as demonstrated on the predictive model. This is followed by the debt-to-equity ratio (0.481) and the return on equity (0.369). As a result, this study concludes that debt ratio, debt-to-equity ratio, and return on equity are the most important drivers of short-term solvency, in that order.

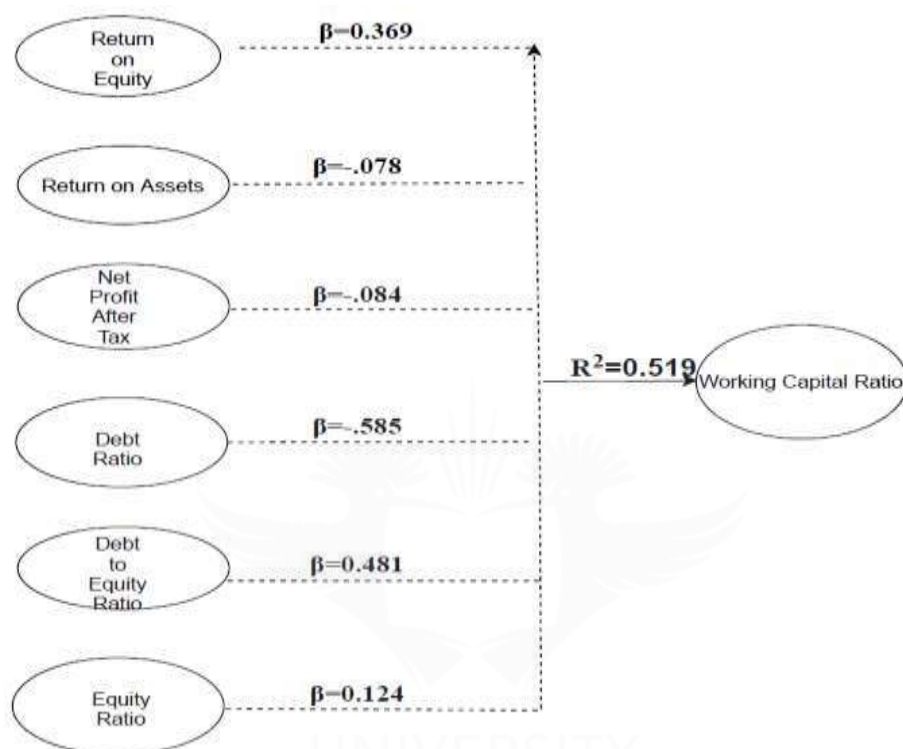


Figure 6. 2-Predictive Model of Working Capital Ratio from Profitability and Capital Structure

Even though the debt ratio has the greatest impact on the working capital ratio, a one-unit increase in the debt ratio leads to a -1.645 fall in the working capital ratio. This demonstrates an inverse relationship between debt and working capital ratio. This confirms that embryonic SMEs would be better off without a lot of debt. This study, which demonstrates that an increase in debt ratio resulted in a decrease in working capital ratio, is consistent with prior research findings. Wiklund et al. (2010: 427), for example, stated that leverage, which is an indicator of the amount to which non-equity investment is employed as a claim on future cash flow, signifies high risk and insolvency.

The debt-to-equity ratio, which was found to be the second most important driver of working capital ratio, had a slope coefficient of 0.374. As a result, a one-unit increase in debt-to-equity is associated with a 0.374-unit increase in working capital ratio. As the debt-to-equity ratio

risers, so does the working capital ratio. The findings indicate that an appropriate debt-equity mix raises the working capital ratio and thus lowers the liability of newness. When a suitable combination of debt and equity is used, nascent SMEs will be able to pay off their obligations as they come due, and so remain a viable firm. This supports the trade-off theory, which indicates that businesses should be financed partly with debt and partly with equity to derive the benefit of both sources of capital. The study's findings suggest that, while the pecking order theory should be followed for long-term solvency, emerging SMEs should follow the trade-off theory for short-term solvency (up to one year) or liquidity. The study also finds that ROE is an important driver for both short term and long-term solvency of nascent SMEs.

6.2.3 Profitability, Capital Structure and Net Worth

Finally, this study asserted that it was critical to calibrate solvency in terms of net worth to determine whether capital structure and profitability could assist a company's total assets to exceed its entire liabilities. A corporation must have more total assets than total liabilities in order to be termed solvent (Powers, 2015: 46). As a result, the following objective was developed:

To establish the impact of profitability and capital structure on the net worth of nascent small and medium enterprises.

The findings of this study confirm that profitability and capital structure have a significant impact on the solvency of emerging small and medium-sized businesses as measured by net worth.

The following findings were also made:

- Return on equity strongly predicts net worth of nascent small and medium enterprises.
- Return on assets is not a statistically significant predictor of net worth of nascent small and medium enterprises
- Net profit after tax is not a statistically significant predictor of net worth of nascent small and medium enterprises
- Debt ratio strongly predicts net worth of nascent small and medium enterprises
- Debt-to-equity ratio is able to predict net worth of nascent small and medium firms
- Equity ratio is able to predict net worth of nascent small and medium firms.

To summarise, two aspects of profitability were shown not to be significant predictors of net worth on a univariate basis. On a multivariate level, however, profitability and capital structure were found to have a significant impact on net worth. Multivariate analyses ensure that the

results are not skewed or impacted by unaccounted-for elements. It also enables for the simultaneous analysis of more information, resulting in increased power and a better understanding of the relationship between variables (Kumar, Singh, & Mishra, 2013:25). As a result, objective three was met.

The results are illustrated in figure 6.3, which is a predictive model of net worth from profitability and capital structure. When the variation explained by all other factors in the model is controlled, the debt-to-equity ratio (0.452) makes the strongest statistically significant unique contribution to explaining net worth, as demonstrated on the predictive model. This is followed by the equity ratio (0.305) and the debt ratio (-0.208). As a result, this study concludes that debt to equity ratio, equity ratio, and debt ratio are the most important drivers of net worth, in that order. An increase in debt-to-equity ratio and equity ratio result in an increase in net worth of nascent small and medium enterprises. On the contrary, an increase in debt ratio reduces the net worth of nascent SMEs. As a result, small firms should be cautious about employing debt and should only do so when it is combined with appropriate levels of internal equity to boost their net worth.

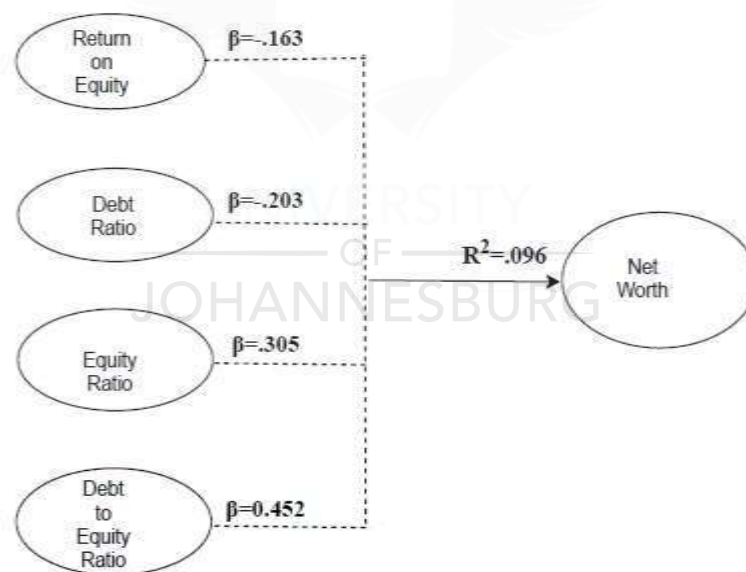


Figure 6. 3-Predictive Model of Net Worth from Profitability and Capital Structure

6.3 CONCLUSION

The primary objective of this study was to determine the impact of profitability and capital structure on the solvency of nascent small and medium enterprises. Solvency was broken down into three components and quantified using the solvency ratio, working capital ratio, and net worth. Given that solvency was divided into three aspects in this study, it was necessary to

determine which of the three components provided the best assessment of a business's potential to remain solvent while minimising the liability of newness. The adjusted R^2 was used to make that determination. Three regression models were developed to fit each of the three components of solvency, as described in earlier chapters of this study. When comparing alternative regression models that have at least one distinct parameter, the adjusted R^2 is essential (Fávero & Belfiore, 2019: 470).

Regression model one had the highest adjusted R^2 and therefore, the lowest regression standard error, indicating a better model fit. The dependent variable in that model was the solvency ratio. Regression model two, which involved the working capital ratio had the second-highest adjusted R^2 . Regression model three, which determined the impact of profitability and capital structure on net worth, had the lowest adjusted R^2 . Thus, based on the adjusted R^2 , solvency ratio was determined to provide the best assessment of a business's potential to remain solvent while minimising the liability of newness. Accordingly, based on the adjusted R^2 , the solvency ratio was established as the best measure of solvency.

The solvency ratio, like the other solvency elements, had six predictors in this study. Return on equity, return on assets, net profit after tax, debt ratio, debt to equity ratio, and equity ratio were the metrics used. The equity ratio was found to make the strongest statistically significant unique contribution to explaining the solvency ratio, followed closely by return on equity. Because the solvency ratio was found to be the best indicator of solvency, it is thus concluded that equity ratio and return on equity have the greatest impact on the solvency of nascent small and medium enterprises. As such, for young SMEs to navigate the liability of newness and survive to become matured enterprises, they must use equity. Debt ratio was determined to have a negative effect on solvency ratio, indicating that SMEs that used debt as their primary source of capital stood the risk of insolvency.

The SMEs at the centre of this study have limited access to equity markets. Accordingly, in this sense, equity investment largely refers to internal finance, which is primarily retained earnings. This study finds that using retained earnings help mitigate the liability of newness. As a result, the study lends support to the pecking order idea, which advice for businesses to first rely on internal resources before seeking external finance. In addition to using internal equity, entrepreneurs should make operational and financial decisions with an eye toward how those actions will affect ROE. These measures ensure survivability.

The working capital ratio, which measures short term solvency, was also determined to be a very good indicator of solvency with an adjusted R^2 of 51.9 per cent, indicating a large effect size according to Cohen (1988:79). According to the findings of this study, the most important drivers of working capital ratio are debt ratio, debt-to-equity ratio, and return on equity, in that order. However, an increase in debt ratio leads to a decrease in working capital ratio. This means that the use of debt can plunge nascent SMEs into illiquidity or short-term insolvency. The debt-to-equity ratio, and return on equity, however, have a direct relationship with working capital ratio.

Even though a higher debt-equity ratio suggests a high working capital ratio, the debt ratio has shown that excessive use of debt might result in short-term insolvency implications. Firms should thus use only moderate levels of debt to be liquid. As a result, this study concludes that an appropriate debt-to-equity ratio will result in a high working capital ratio, thus keeping the firm liquid. This assertion backs up the trade-off theory, which supports weighing the tax-saving benefits of debt against the possibility of bankruptcy. Even though an optimal debt-equity mix results in high liquidity (short-term solvency), this study concludes that embryonic SMEs should strive for long-term solvency, and thus adhering to the dictates of the pecking order theory is critical to counterbalance the liability of newness and push SMEs from nascency to maturity.

Net worth measures the solvency of the business (Hofstrand, 2019:2). This is because insolvency happens when total liabilities exceed a realistic estimate of the firm's assets (Almansour, 2015: 118; Power, 2015: 46). In that case, net worth is considered negative, and businesses with negative net worth may fail. It is in the light of this that net worth was used in this study as an indicator of solvency. However, the adjusted R^2 for regression model 3, with net worth as dependent variable, was 8.8 per cent, indicating a small effect size in the Cohen (1988:79) classification. Nonetheless, net worth is an important indicator of solvency and a measure of a company's value as attested to by Hofstrand (2019:2). The findings of this study show that the three most important drivers of a firm's net worth are debt-to-equity ratio, equity ratio, and debt ratio, in that order. The debt-to-equity ratio and equity ratio are shown to have a direct relationship with net worth. However, in terms of debt ratio, it has been demonstrated that as debt ratio increases, the net worth of the business decreases. This highlights the need for nascent SMEs to utilise an appropriate mix of debt and equity to grow the net worth and value of the firm. As the net worth increases, total assets outweigh total liabilities, and therefore the firm stays solvent.

This study concludes that, while nascent SMEs face significant liability of newness and may fail in their early stages, they can minimise the liability of newness and survive through nascency to maturity by using appropriate capital (Dhankar, 2019: 198; Wiklund, Baker, & Shepherd, 2010: 427) and sustaining profitability (Park & Lee, 2019: 51; Dhliwayo, 2016: 10). To sum up, the objective to establish the impact of profitability and capital structure on solvency was achieved. The following section discusses managerial implications and management recommendations.

6.4. MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The total success of this study is dependent on its findings' capacity to offer useful managerial recommendations. The findings of this study provide managerial guidance for keeping the solvency of nascent small firms while using suitable capital and increasing profitability. Profitability was divided into three components in the study: return on equity, return on assets, and net profit after tax. Similarly, capital structure was divided into three components: debt ratio, debt to equity ratio, and equity ratio. The study then regressed the profitability and capital structure components on three different measures of solvency: solvency ratio, working capital ratio, and net worth. On a multivariate level, all six independent variables contributed statistically significantly to the prediction of solvency. However, on a univariate level, not all components of profitability and capital structure were found to have a statistically significant predicting effect on solvency. The researcher makes the following recommendations regarding the diverse capital structure and profitability elements to guide entrepreneurs on how to mitigate liability of newness and keep nascent SMEs thriving.

Return on Equity: The amount of profit generated by the firm for each unit of equity invested in the business is expressed as return on equity. It is the amount of net income returned as a percentage of the quantity of equity owned (Ahsan, 2012:132). It assesses a company's ability to convert equity capital into earnings. In this study, return on equity was assessed for its impact on each of the three elements of solvency. After controlling for the variance explained by all other variables, the return on equity was found to make a very strong unique contribution to explaining the solvency ratio and working capital ratio. The direction of the relationship was positive, meaning increasing return on equity led to an increase in both long-term solvency and short-term solvency (liquidity). Return on equity was also found to be a statistically significant predictor of net worth, although the direction of the relationship was negative. Return on equity (ROE) represents a company's annual return (net income) divided by the value of its total

shareholders' equity (net worth). As a result, it stands to reason that the relationship between ROE and net worth is inverse.

In sum, return on equity has a very important impact on the liability of newness of nascent small and medium enterprises. It contributes to the solvency of the enterprise. As a result, managers of small businesses should develop strategies that increase the return of equity of their businesses. Such strategies include the following:

- Maintaining liquidity by incurring as little debt as possible.
- Using debt only when their internal equity is depleted. As such, following the pecking order theory.
- Using a minimal number of assets to produce sales and, as a result, making better use of their resources.

Return on Assets: Return on assets measures a company's ability to generate profits from its assets. As a result, this net income-to-total-assets metric measures the firm's rate of return on assets (Brigham & Houston, 2021:119). This makes it easier to evaluate an asset's efficiency because it allows for the computation of the outcome in relation to the quantity of capital needed to acquire it. So, it is a very important metric. While it is an important metric, it was not found in this study to be a statistically significant predictor of solvency ratio and net worth on a univariate level. It can, however, predict the working capital ratio. As a result of its ability to predict liquidity, managers of nascent SMEs must not overlook the implication of return on assets on the general well-being of the company.

Managers of SMEs should understand that maintaining liquidity necessitates keeping a significant portion of current assets. This improves liquidity and lowers the risk of bankruptcy. Maintaining too much current assets, on the other hand, may result in a high cost of missed opportunities which could have increased the company's return on assets (Bolek & Wiliski, 2012:42). Excess current assets could be used to invest in fixed assets, resulting in a higher ROA if applied correctly (Gajdka & Waliska, 2008:466). The implication is that if firms maintain a high level of current assets, then they are not allocating capital to long-term investments that will result in a high return on assets. This explains this study's inverse relationship between ROA and working capital ratio. This study recommends that business owners should focus on both short-term solvency and return on assets. As a result, SMEs should avoid converting all current assets into fixed assets solely for the purpose of achieving a high ROA. This could lead to illiquidity. Similarly, SMEs should avoid holding too many liquid assets because this increases the cost of missed opportunities and reduces ROA.

Net Profit After Tax: The amount of profit a company makes after taxes is known as net profit after taxes. It is how much money a company would make if it had no debt and only had operating assets (Brigham & Houston 2021:81). It is thus the profit that accrues to the venture's owners, the actual amount that the company can keep in order to run the business. Because it reflects the year's final earnings, net profit after tax is important. NPAT can be reinvested in the company's operations as retained earnings. The impact of net profit after tax on each of the three elements of solvency was examined in this study. After controlling for the variance explained by all other variables, it was concluded that net profit after tax made a unique contribution to explaining the solvency and working capital ratios. On a univariate level, it was found to have no effect on the net worth (book value) of businesses. This is because while the firm's book value is an accounting record of what happened in the past, the net profit after tax, which is derived from the income statement, provides a value indicator that accurately reflects the company's current resource utilisation. As a result, the firm's current net profits are largely independent of its book value (Burgstahler & Dichev, 1997:188). However, because it statistically significantly predicts solvency and working capital ratios, net profit after tax is a critical metric that business owners should keep an eye on. Net profit has both long term and short-term solvency implications. Managers should focus on the price, variable costs, and fixed costs of the business because they affect net profits and, by implication solvency.

Debt Ratio: The debt ratio is the percentage of a company's assets held by creditors. It is a relationship between total liabilities and total assets. High debt ratio implies that the percentage of assets held by creditors is very high. According to Wiklund et al. (2010: 427), leverage carries a high risk of insolvency. The debt ratio was evaluated in this study for its impact on each of the three elements of solvency. After controlling for the variance explained by all other variables, the debt ratio was found to make a very strong unique contribution to explaining the solvency ratio, working capital ratio and net worth. In all cases, the direction of the relationship was negative, implying that increasing debt reduces long-term solvency, short-term solvency (liquidity), and firm value. Small business owners must be aware of the impact of debt on the enterprise's overall survivability. From this study's findings, using too much debt increases the liability of newness and increases insolvency, which is consistent with previous studies such as Wiklund et al. (2010: 427).

Debt-to-Equity Ratio: This ratio denotes the proportion of the company's capital derived from debt as opposed to internal and external equity sources. A high debt-to-equity ratio indicates high leverage, and it increases earnings volatility, while high financing costs increase the

likelihood of insolvency (Abor, 2017: 191). As a result, the debt-to-equity ratio reflects the soundness of the firm's financing decisions. When businesses use debt capital, they gain benefits such as tax breaks, reduced agency costs, and the transmission of a positive signal about future earnings potential (Legesse & Guo, 2020: 108). This claim is based on capital structure theories. Regardless of the benefits of debt, it can lead to financial distress. Leverage, according to Wiklund et al. (2010: 427), carries a high risk of insolvency. As a result, small business borrowing should strike a balance between potential gains and the risk of bankruptcy that comes with high leverage (Legesse & Guo, 2020: 108). In this study, the debt-to-equity ratio was assessed for its impact on each of the three elements of solvency. After controlling for the variance explained by all other variables, the study found that the debt-to-equity ratio made a very strong unique contribution to explaining the solvency ratio, working capital ratio, and net worth. The direction of the relationship was always positive, implying that using an appropriate mix of debt and equity improves long-term solvency, short-term solvency (liquidity), and firm value. However, based on the findings of this study, which show that using too much debt increases the liability of newness and increases insolvency, business owners should use debt sparingly and mostly when it is matched with a corresponding amount of internal equity.

Equity Ratio: This ratio employs the total assets and equity of the company to demonstrate how it finances assets requirements using equity. A low equity ratio indicates that the business is highly leveraged, implying a higher level of financial risk because assets are primarily purchased with non-equity or debt capital. The impact of the equity ratio on each of the three elements of solvency was examined in this study. The equity ratio made a very strong unique contribution to explaining the solvency ratio, working capital ratio, and net worth after controlling for the variance explained by all other variables. It was the single most important factor in explaining the solvency ratio. The relationship between the equity ratio and the three elements of solvency was always in the positive direction, indicating that equity boosts long-term solvency, short-term solvency (liquidity), and firm value. Because the sample in this study does not have access to external equity markets, the type of equity in this case is internal equity. This study strongly suggests that for nascent SMEs to navigate the liability of newness and survive, they should rely primarily on internal equity. This recommendation is even more cardinal since debt has been shown in this study to have a negative impact on all three elements of solvency. By boosting the net worth of nascent SMEs, both short-term and long-term solvency, internal equity has been shown in this study to provide a firm-specific advantage that

improves performance, as suggested by Nguyen and Rugman (2015: 448). Following a detailed discussion of managerial implications and recommendations, the following section discusses the study's contribution.

6.5 CONTRIBUTION OF THE STUDY

This section focuses on the dissertation's contributions. The section is organized into three subsections that address theoretical, empirical, and practical contributions.

6.5.1 Theoretical contributions

Theory and empirical data both contribute to the understanding of the relationship between capital structure, profitability, and solvency in nascent small and medium businesses. This study adds to the understanding of how small and medium businesses could mitigate their liability of being new. To the best of the researcher's knowledge this is the first study that shows how SMEs can mitigate liability of newness by using the right typology of funding. An empirical test on the joint application of the two theories may not have been carried out before. As a result, the findings are very important. Since the study demonstrated that nascent small and medium enterprises could counterbalance the liability of newness in the long run by adhering to the pecking order theory, it has demonstrated the importance of the pecking order theory to SMEs in achieving maturity from nascency.

The findings of this study imply that when nascent SMEs seek long-term solvency, the pecking order theory should be followed. Businesses, on the other hand, should use the trade-off approach to ensure short-term solvency. As a result, this study demonstrates that capital structure is critical for the survival of nascent SMEs

6.5.2 Empirical literature contribution

The study has made its modest contribution to the very limited literature on nascent small and medium enterprises, especially on the African continent. Although many studies have been carried out on small and medium businesses in the African context, there has been very little research on the liability of newness regarding nascent SMEs on the continent. In the Ghanaian context, previous studies such as Abor and Quartey (2010), Abor (2007), and Boohene et al. (2019) have all focused on mature SMEs. This study pushes the envelope by focusing on fledgling SMEs. The study's conclusions address a gap in the liability of newness, particularly in African SMEs, and how it might be addressed via financial indicators.

Thus, this is the first study that applies capital structure theories to the liability of newness framework. By applying the pecking order theory on small and medium enterprises, this study

shows how the right financing decision facilitates nascent SME growth and survival. Capital structure theory is a well-established theoretical field (Pretorius, 2013:546), but applying it to small and medium businesses allowed this study to show that it is not limited to large corporations. This is especially significant given that the majority of capital structure studies are conducted on large, publicly traded companies, as Yazdanfar and Ohman (2015:1) attest. Consequently, the general contribution of this study to the entrepreneurship empirical literature is that it has strengthened the discourse on capital structure and the liability of newness framework, particularly as it relates to small and medium businesses.

6.5.3 Practical contributions

The study proffers advice to small business owners, the most important of which is that, while the trade-off theory leads to short-term solvency, following the pecking order theory will inevitably lead to long-term survival. As a result, small business managers must rely primarily on internal equity and only resort to debt when internal equity is depleted. This helps nascent SMEs to increase their solvency and reduce their liability as a result of their newness.

In addition to using internal equity, entrepreneurs should make operational and financial decisions with an eye toward how those actions affect ROE. The study buttresses the point that strategies such as maintaining liquidity and efficiency do increase the return on equity of nascent small businesses thereby increasing their chance of transitioning to maturity. While maintaining liquidity is essential, maintaining too much current assets could result in missed opportunities. As such, firms should always strive for a balance. To this end, the findings of this study can be used as a practical tool.

6.6 LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Regardless of its contributions, this study has limitations. A quantitative and cross-sectional approach was used. Despite the fact that quantitative studies like this focus on numerical representativity and the creation and testing of hypotheses based on statistical significance, prior research exemplifies a critical perspective. According to Rothman (1986:445), for example, testing for statistical significance is prone to error, undermining what should be a contemplative exercise. Furthermore, statistical significance does not always imply empirical results' practical or theoretical significance (Schneider, 2013:54). This represents a limitation in this study as the findings, managerial implications and contribution were arrived at based on the statistical significance of the relationship between the study constructs. However, this study acknowledged, as Ochieng (2009:17) suggested, that quantitative data is based on qualitative

judgment. Numbers cannot be interpreted without first understanding the assumptions that underpin them. As a result, every effort was made to make this study and its findings a contemplative exercise.

As previously stated, this study was cross-sectional rather than longitudinal. It relied on financial statement data from small and medium businesses, the contents of which could have been window dressed. The primary limitation of a cross-sectional study design, according to Solem (2015:205), is that the predictor and outcome variables are assessed simultaneously, making it nearly impossible to establish a true cause and effect relationship. These methodological insufficiencies limit the generalisability of the study, and future studies should employ a longitudinal design in order to address these limitations. In terms of the possibility of flawed financial statement data, this study attempted to mitigate the impact of any such issues by employing a large sample size. The study included 1106 small and medium-sized businesses from a variety of industries.

The study also acknowledges that accounting standards are not universally applied around the world. This restricts the generalisability of the findings of the study because the figures from different countries with different accounting principles will be dissimilar and incomparable. To put things in perspective, Ghana and South Africa have adopted the International Financial Reporting Standards for SMEs. However, in some countries, such as the United States, IFRS for SMEs is neither required nor expressly permitted. However, it is not prohibited, and most SMEs have not adopted a specific financial reporting framework. In the United Kingdom, small businesses can use a national standard based on the IFRS for SMEs, but with significant changes. They could also use IFRS, which the EU has adopted. In Turkey, the IFRS for SMEs is neither required nor permitted (IFRS, 2021). These illustrations exemplify the non-uniformity of accounting standards around the world, despite the fact that this is the goal. Future studies can take samples from different countries with different accounting standards and test for statistical differences in the results.

Despite the study's limitations, the chosen study designs and methods were adequate for achieving the study's objectives and make some significant contributions. It is hoped that the dissertation findings will stimulate further research in entrepreneurship, particularly in Africa, where the rate of nascent SME failure is alarmingly high. Researchers are therefore encouraged to contribute to this field and aid in the growth of small businesses.

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APPENDIX 1

CBEREC and SUBCOMMITTEES 2019



CBE RESEARCH ETHICS COMMITTEE

Dear K Amoa-Gyarteng

ETHICAL APPROVAL GRANTED FOR RESEARCH PROJECT

Decision: Clearance granted

This letter serves to confirm that that the proposed research project indicated in the table below, has been reviewed by the School of PMG Research Ethics Committee at the University of Johannesburg. Ethical clearance is hereby granted and is valid for three years, from 22 February 2021 until 22 February 2024.

Applicant	K Amoa-Gyarteng
Supervisor	Prof S Dhlwayo
Student/staff number	220158368
Title	The Effect of Capital Structure and Profitability on the Solvency of Nascent Small and Medium Enterprises
Decision date at meeting	22 February 2021
Reviewers	Ethics Committee at the Department of Business Management
Ethical clearance code	21SOM05
Rating of application	Code 01

CODE 01 - Approved

CODE 02 -Approved with suggestions/requirements with no re-submission

CODE 03 - Referred back

CODE 04 -Disapproved, cannot re-submit

The researcher/s may now commence with the study providing that:

1.The researcher/s will ensure that the project adheres to ethical research requirements

2. The researcher/s will be conducting the study as set out in the approval application
3. The researcher/s will ensure that project adheres to all applicable legislation, scopes of practice, professional codes of conduct and scientific standards as it pertains to the field or study.
4. The researcher/s will bring under the attention of the research ethics committee any proposed changes, concerns that arise, and unexpected ethical management issues
5. Any changes that can affect the study-related risks for participants or researchers must be reported to the committee in writing

Data collection may not commence unless written permission and/or ethical clearance (as per the requirements of the particular institution) have been granted by the appropriate gatekeepers at the institutions where the researcher wishes to collect data.

6. No fieldwork activities may continue after the ethical clearance has expired. A request for an extension of ethical clearance can be made in writing to the REC

Please be aware of the following that the researcher/s should adhere to:

N/A

Signature:



Name of Chairperson: Dr A. Makka

Name of Committee: BMREC

Email: amakka@uj.ac.za / pthomas@uj.ac.za

Telephone: 011 559 2074 / 011 559 1325

APPENDIX 2



SUNYANI TECHNICAL UNIVERSITY
DIRECTORATE OF QUALITY ASSURANCE AND
ACADEMIC PLANNING
(ACADEMIC PLANNING UNIT)



Our Reference DQAAP/21/10/001 Your Reference..... Date: October 25, 2021

TO WHOM IT MAY CONCERN

THESIS EDITORIAL REVIEW - KARIKARI AMOA-GYARTENG

I write to confirm that the PhD thesis of Karikari Amoa-Gyarteng was subjected to editorial review process. As part of the process, I proofread the manuscript for grammatical, spelling, punctuation, tense, and structural errors. However, the review did not affect the content of the manuscript.

I also wish to state that the review process did not establish the similarity index of the thesis.

Any assistance accorded him would be appreciated.

Thank you.

Dr Edward Owusu

PhD (Teaching English as a Second Language)

MPhil (Teaching English as a Second Language)

MA (Teaching English as a Second Language)

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