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The Moderating Effect of Financial Accessibility on the Relationship between Creditworthiness and the Performance of Small and Medium Enterprises (SMEs) in Construction Industry

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DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The dissertation has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ABSTRACT

This study aims to determine the relationship between creditworthiness and the performance of Small and Medium Enterprises (SMEs) within the dynamic context of the Sarawak Construction Industry. Creditworthiness is a crucial factor for SMEs in determining financial accessibility. Severe cash flow constraints have impacted SMEs' ability to meet their debt obligations. Drawing on the established 5Cs credit model comprising character, collateral, condition, capacity, and capital as independent variables, this study extends the model by introducing an additional dimension "Credibility" to comprehensively assess creditworthiness. The study also examines the moderating effects of financial accessibility on the identified relationships. The research was conducted through a questionnaire distributed to 150 SMEs in the Sarawak Construction Industry. The data collected was analyzed using the Statistical Package for the Social Sciences (SPSS 29.0) and SmartPLS 3.0 software. The study identified credibility, capital, and capacity as key predictors of SME performance, underscoring their fundamental roles in shaping business outcomes. The results indicate that credibility is the most influential factor, with the highest path coefficients among the creditworthiness dimensions. Capital and capacity also showed strong associations with both financial and non-financial performance, highlighting that a firm's financial robustness and its ability to meet business demands through available resources are essential for overall success.

Keywords: Creditworthiness, SMEs; Financial Accessibility; Financial Performance; Non-Financial Performance

Kesan Penyederhanaan Kebolehcapaian Kewangan terhadap Hubungan antara Kelayakan dan Prestasi Perusahaan Kecil dan Sederhana (PKS) Industri Pembinaan

ABSTRAK

Matlamat utama kajian ini adalah untuk mengenal pasti hubungan antara kebolehpercayaan dan pencapaian Perusahaan Kecil dan Sederhana (PKS) dalam konteks dinamik industri pembinaan Sarawak. Dalam konteks PKS, kelayakan kredit adalah faktor penting dalam menentukan akses mereka kepada kewangan. Kekangan aliran tunai yang teruk telah memberi kesan kepada kegagalan PKS terhadap obligasi hutang mereka. Merujuk kepada model kredit 5C yang melibatkan personaliti, cagaran, keadaan, kapasiti dan modal sebagai pemboleh ubah tidak bersandar, kajian ini meluaskan skop yang diuji dengan memperkenalkan dimensi tambahan iaitu "kredibiliti" untuk menilai kelayakan kredit dan permohonan secara menyeluruh. Tumpuan utama adalah untuk kajian mengenal pasti kesan dan pengaruh faktor berkenaan atas prestasi PKS. Kajian ini dikaji melalui kaedah soal selidik yang melibatkan 150 PKS dalam industri pembinaan Sarawak. Data yang dikumpul dan dianalisis menggunakan perisian Statistical Package for the Social Sciences (SPSS 29.0) dan SmartPLS 3.0. Hasil kajian menunjukkan bahawa kredibiliti muncul sebagai faktor yang paling berpengaruh, dengan pekali laluan tertinggi di antara dimensi kepercayaan kredit. Selain itu, kapasiti dan modal juga menunjukkan hubungan yang kukuh dengan prestasi keteguhan kewangan firma dan keupayaannya untuk memenuhi permintaan perniagaan melalui sumber yang ada adalah penting untuk kejayaan keseluruhannya.

Kata Kunci: *Kebolehpercayaan Kredit, Model Kredit 5Cs; Akses kepada Kewangan; Prestasi Kewangan PKS; Prestasi Bukan Kewangan PKS*

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LIST OF ABBREVIATIONS

CCRIS	Central Credit Reference Information System
CGS	Centre for Graduate Studies
CTOS	Credit Tip Off Service
DOSM	Malaysia's Department of Statistics Malaysia
GDP	Gross Domestic Product
POT	Pecking Order Theory
RDT	Resource Dependency Theory
SMEs	Small and Medium Enterprises

CHAPTER 1

INTRODUCTION

1.1 Introduction

Creditworthiness plays a significant role in nation-building as it influences an individual’s or company’s eligibility for financing, the pricing or interest rates charged, and their attractiveness to global investors. Creditworthiness is commonly defined as the ability of borrowers to fulfill their debt commitments on time and in full. According to Siekelova et al. (2017), creditworthiness is a critical aspect of both individual and corporate financial health and stability, making it essential for borrowers to actively improve their repayment behavior. Caplinska and Tvaronaviciene (2020) suggested that creditworthiness is used to assess a borrower's reliability in terms of their capacity to repay the outstanding debt balance to lenders, financial institutions, and other creditors. Furthermore, Abdullaev and Bobonazarov (2023) concluded that creditworthiness is a comprehensive assessment of a client's financial performance, reflecting the borrower's ability to make timely repayments on financial commitments.

These financial commitments include both the principal and the interest. Cancino et al. (2023) emphasize that creditworthiness is of vital importance for both individuals and organizations, serving as an indicator of their ability to meet financial obligations on time. Creditworthiness is pivotal in determining whether financial institutions should extend credit to borrowers. Mladentseva (2023) further asserted that a borrower’s ability to obtain a loan is determined by their capacity to repay it, which is influenced by the borrower's financial stability and reliability. In addition, credit decisions are also subject to the recommendations made by credit officers within lending institutions. The efficiency of any credit-related

program relies heavily on a thorough understanding and evaluation of the borrower's character, particularly regarding loan repayment.

Financial institutions, as key elements of the market structure, play a crucial role in enabling a nation's economy to expand sustainably and continue improving the standard of living. Commercial banks aim to allocate funds with the lowest financial risks and the highest profit prospects (Anvarovich, 2021). Simultaneously, the primary sources of income for financial institutions are the interest rates they charge borrowers when providing loans. Therefore, financial institutions strive to ensure that customers will repay their loans on schedule, evaluating customers' creditworthiness based on their repayment history before granting new credit (Anvarovich, 2021). Creditworthiness requires the borrower to demonstrate financial strength and the capability to fulfill all financial obligations on time. It is also a critical factor for borrowers because their repayment history influences their ability to obtain new financing from financial institutions (Caplinska & Tvaronaviciene, 2020).

Redete (2022) argued that a country's progress and prosperity are strongly affected by its financial standing and credit rating. A high credit rating can contribute to sustainable development, while a low rating can have the opposite effect. Generally, a country with a high credit rating is seen as more creditworthy, meaning its debt obligations are at a lower risk of default. Achieving such a rating allows a country to borrow money at more favorable interest rates, reducing the debt burden and freeing up resources for other uses. A high credit rating also improves a country's access to financing from various sources, including multilateral institutions, bilateral partners, and capital markets, enabling it to meet its development needs while investing in public goods and services. Conversely, a country with a low credit rating is generally seen as less creditworthy, facing greater risks of defaulting

on its debt obligations. This makes it more difficult for such countries to borrow money at reasonable interest rates, increasing debt levels while decreasing fiscal space. Low credit ratings can limit a country's financial accessibility from various sources, as creditors may be reluctant to lend to high-risk borrowers, thereby restricting its ability to meet development needs or invest in public goods and services (Czarnitzki & Kraft, 2007).

According to Cancino et al. (2023), good creditworthiness can result in easier loan approval, eligibility for lower interest rates, enhanced trust from financial institutions, and faster access to loans or credit. On the other hand, poor creditworthiness can limit access to financial services, result in higher interest rates, or potentially lead to rejection of credit applications.

Orlova (2021) stated that by assessing each borrower's creditworthiness, financial institutions have enhanced their innovative methods to ensure full borrower identification, which can improve the quality of the bank's loan portfolio in advance. These innovative methods reduce financial institutions' credit risks while improving the reliability of potential borrowers' solvency assessments. However, underestimating or overestimating borrowers' risks due to faulty creditworthiness assessments can lead to unpredictable outcomes, including potential capital losses for banks.

Wasiuzzman et al. (2020) emphasized that SMEs' creditworthiness also encompasses their market standing in the industry, as well as their relationships with debtors and creditors. A positive reputation can enhance credibility, including business reputation and creditworthiness. Factors such as market share, competitive advantage, and growth prospects contribute to the overall assessment of creditworthiness. Additionally, repayment history is a critical component of lender decisions; lenders use credit records to evaluate borrower

behavior, where prompt repayment and responsible financial management lead to enhanced creditworthiness ratings.

Yangibaevich and Olimovich (2023) mentioned that a comprehensive method for assessing borrowers' creditworthiness has been developed. This approach involves determining the creditworthiness of borrower-enterprises by building an aggregated balance sheet based on financial statements and calculating financial ratios from the latest financial records.

Furthermore, financial institutions assess SMEs' financial health by evaluating their financial stability, including profitability, cash flow, and earnings stability over time. A stable financial position indicates the ability to meet financial obligations and repay loans (Siekelova et al., 2017). Several factors can contribute to low creditworthiness for a business, including poor business management leading to weak performance, weak cash flow, high financial commitments, high gearing levels, high default risk, and a lack of security guarantees (Abdou et al., 2016).

Additionally, financial providers assess organizational entities as part of the credit process, reviewing financial statements, cash flow statements, business plans, and projected business cash flows before extending any facilities to a corporation (Vidya & Rajaram, 2024). Moreover, Goel and Rastogi (2023) conducted a study to formulate behavioral credit scoring models for SMEs using certain behavioral and psychological constructs. They concluded that creditworthiness can also be predicted through borrowers' behavioral and psychological traits, with research showing that certain traits can significantly predict borrowers' default risk.

Vidya and Rajaram (2024) stated that the primary barriers preventing SMEs from obtaining financing from financial institutions include a lack of a solid track record of

success, insufficient existing data, and inadequate credit proposals to present to financial institutions. Additionally, stringent lending requirements by financial institutions are another factor preventing SMEs from securing loans. These issues hinder SMEs from acquiring the necessary financing to grow and expand their business operations.

In conclusion, creditworthiness is of utmost importance to SMEs operating in the construction industry, as it is essential for obtaining credit for expansion, operations, and overall performance. Conversely, limited information on credit histories and financial resources can make it difficult for lenders to grant additional facilities to SMEs. Credit officers process applications based on the credit histories and documents provided by SMEs, so it is crucial for SMEs to establish positive credit scores by meeting payment obligations promptly and maintaining financial discipline. SMEs should also keep track of their debt levels, avoid late payments on outstanding balances, and ensure the highest standards of fiscal accountability. In other words, Sarawak SMEs in the construction industry can enhance their creditworthiness by boosting operational efficiency, maintaining strong cash flow, and promptly meeting payment obligations.

1.2 Background of the Study

The small and medium enterprises (SMEs) sector is the backbone of the country's economy and a vital contributor to economic development and social well-being. SMEs are an essential component of the Malaysian economy, contributing to more than a third of the gross domestic product (GDP) and employing over four million Malaysians (Central Bank of Malaysia, 2023). The majority of business establishments in Malaysia are SMEs, which are crucial to the growth of the economy and the creation of employment opportunities (Yoshino & Hesary, 2018). According to a report by the Department of Statistics Malaysia

in 2020, SMEs made up more than 90% of all business establishments in the country, accounting for 48.0% of national employment and 38.2% of Malaysia's GDP (Cheong, 2022).

Before 2005, SMEs in Malaysia did not have standardized terms or conditions for classification. Policymakers and researchers faced challenges due to the absence of a uniform, official definition, making it difficult to study and support this crucial sector, which is the backbone of the economy. As a result, previous researchers were forced to develop their own definitions and standards, leading to a variety of classification techniques and a wide range of different research findings. The lack of an internationally recognized definition also hindered the development of specific policies and initiatives to stimulate SME growth, thereby limiting their contribution to economic development. In response, international organizations intensified efforts to establish an accurate definition of SMEs (Chin & Lim, 2018).

Table 1.1: Definition of Small Medium Enterprises (SMEs)

Previous definition as at 2005	Comparison	Definition as at 2013
Sales turnover of less than RM25 million *or* full-time employees of less than 150 workers	Manufacturing sectors	Sales turnover not exceeding RM50 million *or* full-time employees not exceeding 200 workers
Primary Agriculture and Services (including ICT): Sales turnover of less than RM5 million *or* full-time employees of less than 50	Others than manufacturing sectors	Services and other sectors: Sales turnover not exceeding RM20 million *or* full-time employees not exceeding 75 workers

Source: SME Corporation Malaysia (2005)

Table 1.1 presents the differences among SME classifications over the years. In 2005, SMEs were defined as manufacturing-related services (including agro-based businesses) with annual sales turnover not less than RM250 million and full-time employees not fewer than 150 workers. Additionally, in the primary agriculture and service sectors (including ICT), SMEs were defined as having sales turnover not less than RM5 million and employees not fewer than 50 workers (SME Corp, 2022). However, due to significant changes in market trends and inflation factors, the National SME Development Council (NSDC) reviewed and revised the definition of SMEs in July 2013. The latest definition categorizes SMEs in the manufacturing sector as businesses with sales turnover not exceeding RM50 million or full-time employees not exceeding 200 workers. For the services and other sectors, SMEs are defined as having sales turnover not exceeding RM20 million or full-time employees not exceeding 75 (SME Corp, 2022).

Based on Table 1.2, the categories for Micro, Small, and Medium Businesses within SMEs are outlined. Businesses in construction, manufacturing, services, and other sectors are classified as micro businesses if their sales turnover does not exceed RM300,000 and they employ no more than five persons. A business is categorized as a small business when its sales turnover ranges from RM0.30 million to RM15 million or it employs between 5 and 75 workers in the manufacturing sector. In the services and other sectors, a small business has a sales turnover between RM0.30 million and RM3 million or employs between 5 and 30 workers. Moreover, medium businesses are defined as those with a sales turnover between RM15 million and RM50 million or employing between 75 and 200 workers in the manufacturing sector. In the services and other sectors, medium businesses have a sales turnover between RM3 million and RM20 million or employ between 30 and 75 workers.

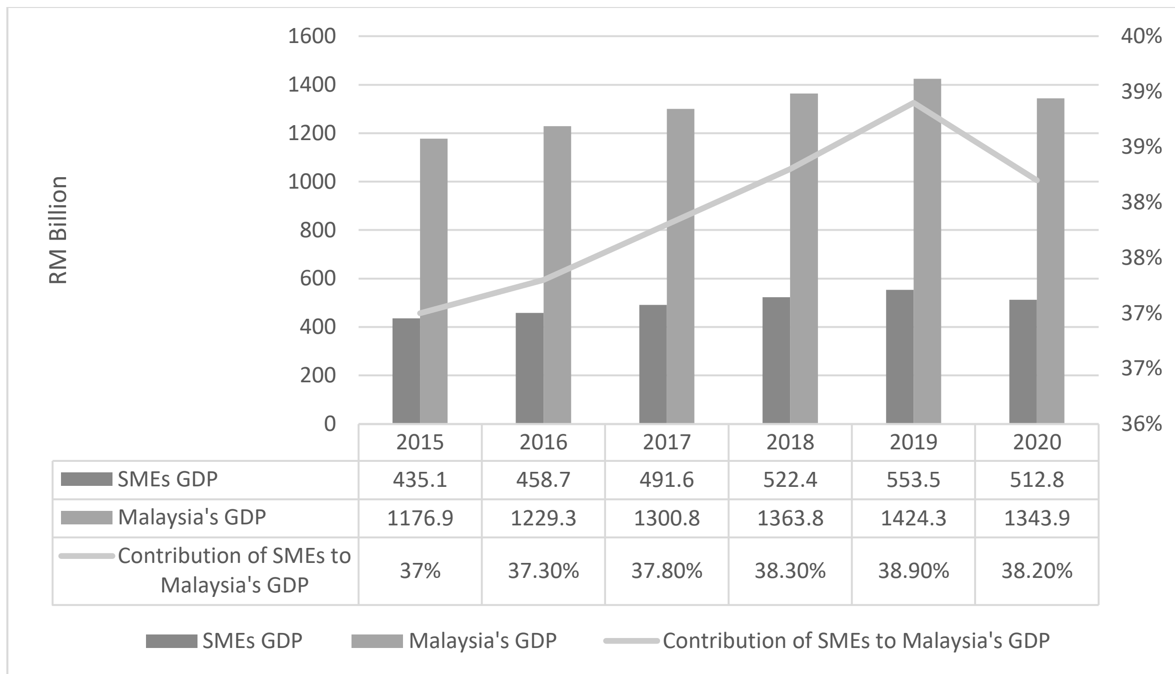
Table 1.2: The Micro, Small and Medium Business Categories

Manufacturing	SMEs	Service and Other Sectors
Sales turnover: RM15mil ≤ RM50mil OR Employees: From 75 to ≤ 200	**Medium**	Sales turnover: RM3mil ≤ RM20mil OR Employees: From 30 to ≤ 75
Sales turnover: RM300,000 ≤ RM15mil OR Employees: From 5to ≤ 75	**Small**	Sales turnover: RM300,000 ≤ RM3mil OR Employees: From 5 to ≤ 30
Sales turnover: < RM300,000 OR Employees: < 5	**Micro**	Sales turnover: < RM300,000 OR Employees: < 5

Source: SME Corporation Malaysia (2005)

Based on Figure 1.1, the value added and contribution of SMEs to Malaysia's GDP from 2015 to 2020 is illustrated. In 2020, the SMEs' contribution to GDP decreased to 38.2%, compared to 38.9% in the previous year, 2019. The value added by SMEs in the service sector decreased by 9.2% in 2020, down from 7.5% in the preceding year. This sluggish momentum was primarily due to declines in wholesale and retail trade, food and beverage, forced shutdowns in the construction sector, and negative growth in the accommodation sub-sector, which posted a decline of 7.8%.

Figure 1.1: Contribution of SMEs to Malaysian's GDP from 2015 – 2020



Source: SME Corporation Malaysia (2020)

Furthermore, based on Figure 1.2, SMEs in the construction sector saw a significant decrease of 15.4% compared to a marginal decrease of 0.3% in the previous year, primarily due to declines across all sub-sectors. In the manufacturing sector, the value added by SMEs registered a negative growth of 2.9%, dropping from 4.5% in 2019. This decline was mainly attributed to a sharp fall in the production of non-metallic mineral products, basic metals, and fabricated metal products, which plummeted by 13.1% (compared to 4.9% in 2019). Conversely, the petroleum, chemical, rubber, and plastic products sector continued to record growth, albeit at a slower rate of 3.2% (down from 4.3% in 2019). The food, beverages, and tobacco products sector also maintained growth, albeit reduced to 2.0% (from 3.2% in 2019).