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Ease of Doing Business by SMEs in Papua New Guinea: The Factors that matter

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Abstract

This study identified the factors that affect the ease of doing business by Small and Medium Enterprises (SMEs) in Papua New Guinea (PNG) from existing literatures and a business pulse survey. The factors identified were; access to government services, law and order, physical infrastructures, Government regulations, access to credit and financial support, cross-border trading, contract enforcement, and other factors that were significant and relevant to PNG. The study used the *Probit* model to estimate the *average marginal effect (AME)* of each factor on the ease of doing business by SMEs in PNG by using firm-level data from a *Business Pulse Survey* on SMEs in 21 economic sectors in the country. The *AME* showed that the size of the impact of each factor on the economic sector varies.

Keywords: Marginal effect, AME, Factors, SMEs, Industry, Probit.

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Acknowledgement

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Abbreviations

Response variables (y)

afsa	Accommodation and food service activities
assa	Administrative and Support service activities
aff	Agriculture, forestry and fishing
aera	Arts, entertainment and recreation activities
bnc	Building and Construction
con01	Construction
edu	Education
egsacs	Electricity, gas, steam and air conditioning supply
fia	Financial and insurance activities
hhswa	Human health and social work activities
inc	Information and communications
man	Manufacturing
mnq	Mining and quarrying
osa	Other service activities
psta	Professional, scientific and technical activities
padcss	Public Administration and defence; compulsory social security
rea	Real estate activities
rnw	Retail and Wholesale
tns	Transport and storage
tra	Transportation
wswr activities	Water supply; sewerage, waste management and remediation
wrrmv	Wholesale and retail; repair of motor vehicles and motorcycles

Independent Variables (x)

ags	Access to Government services
lno	Law and order
inf	Infrastructure
gop	Government Policies
acr	Accessing Credit
cbt	Cross-border trading
cne	Contract Enforcement
oth	Others

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1.0 Introduction

This study examines the exogenous factors that affect the ease of doing business by SMEs in specific economic sectors in PNG and the extent to which a change in each factor affects the probability of ease of doing business by SMEs. SMEs have been shown to matter for a country's economic growth and development while their contribution to growth and development varies between countries. For example, according to the Government of Malaysia, SMEs contributed almost 50 percent to the Gross Domestic Product (GDP), exports and employment. In Australia, SMEs contributed 57 percent to GDP, while providing 7 million jobs (National Australia Bank, 2017). In South Africa, SMEs contributed 34 percent to the GDP and employ between 50percent - 60percent of its workforce (International Financial Corporation (IFC), 2018). SMEs, apart from their contributions to GDP, adding jobs and exports, also boost investments, business opportunities and contribute to tax revenue and income

In light of the foregoing, studies have investigated various issues relating to the SME sector like access to credit, government support, regulatory bottlenecks, infrastructure, cross-border activities, productivity, law and order issues, contract enforcement and others. Studies have also spanned numerous countries and regions worldwide, including Africa, Europe, Middle East and Asia. In Africa, studies by Nkwabi et al (2019) revealed that financial and capital constraints, poor technology and tight regulations affected SMEs growth in Tanzania, while a study by Njanike (2019) found that the number of business units, education level, business type, family run businesses, expertise, licensing, advertising and having a bank account influenced SMEs growth and profitability in Zimbabwe. In Malaysia, a study by Sani et al (2018) found that the importance of a firm having strength in unique resources, sound finances, skilled and experienced employees were key factors. Also Maarof et al (2016) found that good communication between the top management and their employees, clear corporate strategy, the presence of an experienced personnel, good knowledge management and employees' empowerment were key contributors to a SME success. In the Middle East, the study by Mahmood et al (2010) revealed that business success of SMEs depended on the access to financial resources contributed significantly to the development of Pakistan. In sum, literature has highlighted various factors that affected the SMEs in different ways in different countries.

In the Pacific Island Countries, (PIC), very little remains to be known about the state of SMEs.[2] A study by Mishra et al (2017) on SMEs challenges in PNG highlighted that remoteness of business location, limited accessibility to land and difficulty in dealing with banks were some challenges SMEs faced. Javis (2019) found remoteness, deteriorating infrastructure, low impact investments and high interest rate to be impediments to SME development in the PICs. A UNESCAP report by Masoto et al (2012) found four factors that were integral to SME development in the Asia-Pacific region, including the reduction of entry barriers (and related costs) for new businesses, having sufficient and smooth cash flow to SMEs, encourage entrepreneurship through education and training and the strengthening of networking and information dissemination. The SME Business Survey Report by Pacific Entreprise Development Center (PEDF) (2003) highlighted the need for SMEs to have access to capital, improve regulations and enforcement, direct assistance to SMEs, and segregate SMEs into sectors, encourage willingness to pay and promote business association by SMEs. These factors and the policy recommendations to address them are significant that can be considered for SMEs operating in PNG.

The contribution of the SMEs to the PNG economy is significant as they diversify the economy, promote investment and business ownership, create jobs, boosting income generating activity and consumption, supports economic growth and ultimately development (PNG SME Policy, 2016). Currently, there are around 49,500 SMEs, 82.6 percent is owned by the locals that contribute around 17.3percent of GDP. There is very low government aid to the SMEs where 97.5percent have not received any direct government help (PNG SME Policy, 2016). Some of the challenges faced by SMEs in PNG relates to having; limited accessibility to financial services, capacity and inadequate entrepreneurship training, access to IT services, accessibility to commercial land, information on markets and unsupportive business enabling legal and regulatory frameworks. In the PNG SME Policy (2016), the Government introduced policies aimed at removing these obstacles affecting the SMEs. Furthermore, the Government made funding available at the Bank South Pacific and National Development Bank for the SMEs to access, and established the SME Accelerator program[3] to oversee the establishment of a SME Credit Guarantee scheme to assist SMEs secure finance.

[2] The Pacific region is made up of islands spread sparsely across the wide Pacific Ocean, which makes the region more remote and disconnected.

[3] This is a project aimed at helping SMEs to Access to finance, receive advisories, be innovative and improve partnership with key stakeholders.

The Bank of PNG conducted a business pulse survey to gather firm level data to assess the ongoing activity of the SMEs, highlighted the specific factors that affected the ease of doing business. Most of the factors identified in this study were common, also highlighted in other studies. They were; (1) access to government services, (2) law and order, (3) infrastructures, (4) Government regulations and policies, (5) access to credit and financial support, (6) cross-border trading, (7) contract enforcement, and (8) other factors.

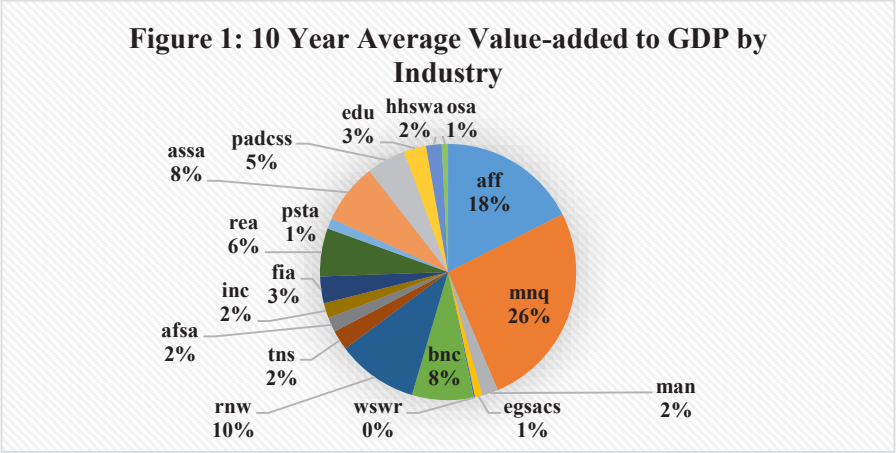
The rest of the paper is organised as follows. After the Introduction, the second section presents the study context. The third section highlights literature review. The fourth section outlines data and methods used in this study. The fifth section presents empirical results. The sixth section concludes.

2.0 Study context

This section provides a brief summary on developments in the economy, the financial and the SME sectors.

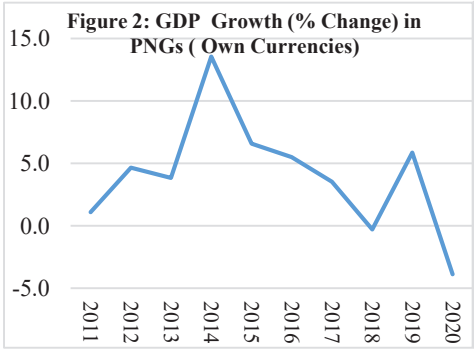
2.1 PNG Economy

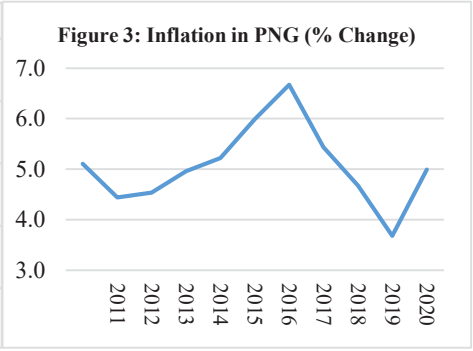
PNG is the biggest economy in the Pacific, in terms of the land mass, economy and population, aside from Australia and New Zealand. The PNG economy is dualistic, which is comprised of the formal modern economy co-existing with the informal sector. The industries that contribute mostly to the PNG economy are mainly extractive (mining & petroleum), agriculture/forestry/fishery (AFF), and retail and wholesale. The average 10-year value-added to GDP published by the National Statistics Office showed that over 50percent of value-added to GDP were from these three industries. These industries, combined with the others provide employment, bring in foreign exchange, contribute to Government revenue through tax, and support locally owned firms by providing sub-contracts.



Source: National Statistics Office (2020)

PNG experienced positive uninterrupted economic growth for more than 10 years, because of the construction of the PNG Liquefied Natural Gas (LNG) project, rising international prices of its export commodities, development of new mining and gas projects and associated spin-off business activities. In addition, the government's expansionary fiscal and accommodative monetary policies led to continued economic growth, stability in inflation, growth in employment and improved business activity over the period. Economic growth since 2008 offset the increase in population, which helped to improve GDP per capita income for PNG, which peaked in 2014. GDP per capita came down in 2015, reflecting lower GDP growth impacted by the completion of the LNG project, the devastating earthquake in 2018, and the Covid-19 in 2020.

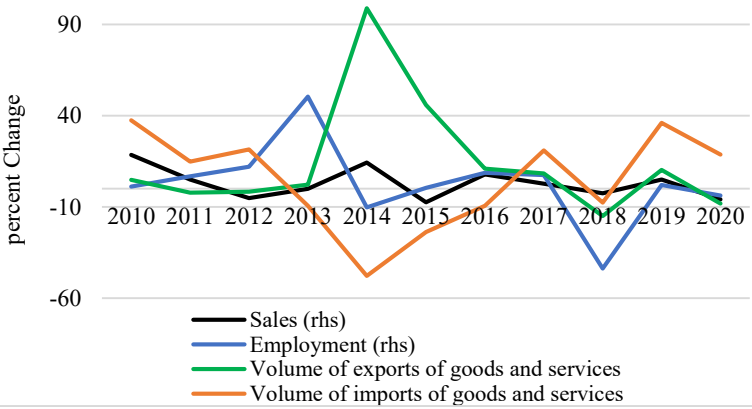




Source: IMF October 2021 WEO

Economic growth began to slow-down in early 2018 as a result of the devastating earthquake that affected the production of gold, copper, oil and gas and the fall in international commodity prices, but rebounded in 2019 (See Figure 2). In 2020, the economic growth slowed further, exacerbated by the impact of Government restrictions on the mobility of people, goods and services, and shutdown of international boarders due to the Covid-19 pandemic. This led to firms scaling down operations, downsizing of workers that ultimately led to drop in production and revenue. This situation led the Government to introduce both fiscal and monetary stimulus[4] measures to mitigate the negative impact of Covid-19 on the economy. Despite these relieve measures, economic growth continued to slow (See Figure 4).

Figure 4: Other Key Economic Indicators (percent Change)



Source: World Bank

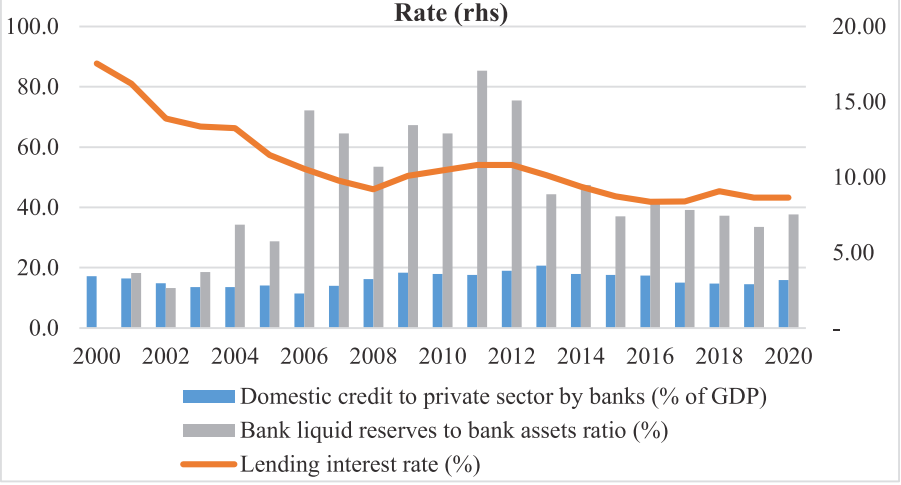
2.2 Financial Sector

The financial sector (fia) contributes only 3 percent in value-added to the economy (See Figure 1). This sector is comprised of four commercial banks, two large superfunds, apart from some savings and loans societies, insurance firms, pension funds and micro-banks and others. They provide financial services in savings, lending, domestic money market trading, foreign exchange trade, money transfer, funds management, insurance and pension to the economy. The regulatory reforms in the

[4] See https://www.bankpng.gov.pg/wp-content/uploads/2020/07/20200331-Policy-Response-on-Impact-of-Corona-Virus4-full-page.pdf.

financial sector in 2000 aided financial sector to perform solidly with strong growth in profitability (See Figure 7). Growth in credit remained around 15 percent backed by sufficient liquidity and falling interest rate to support growth.

Figure 5:Credit (lhs), Liquid Asset Ratio (lhs) and Interest Rate (rhs)



Source: World Bank

The weak transmission of monetary policy to the financial market is an outstanding issue for the Central Bank. Market interest rates do not move in line with the change in official interest rate (Bank of PNG, various Monetary Policy Statements). The commercial banks did not fully implement the recent ease in monetary policy to aid SMEs and businesses badly affected by the Covid-19 restrictions and slowdown in the economy. This is happening despite the fact that there is a high level of liquidity in the system. Interest rate spread continued to remain high over 6 percent as lending rates are higher than deposit rates (See Figure 6). Lending is stagnant partly because lending rates are high, commercial banks have found an alternative investment destination where they can easily invest their excess liquidity and/or they perceived that the risk of loan defaults are high in certain sectors, hence they do not want to lend to SMEs in these 'risky' sectors.

2.3 SME sector

Figure 6: Interest rate spread (lending rate minus deposit rate, %)

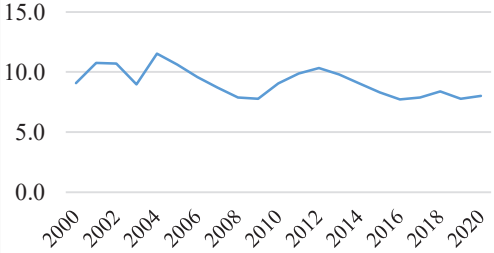
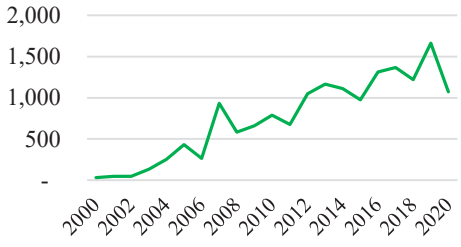


Figure 7 : Financial Sector Profitability (PGK million)



Source: Bank of PNG (Various publication)

2.3.1. A Snapshot

The definition of SME varies across countries depending on their economic structure, geographical location and socio-economic conditions. SME is defined mostly in terms of employment numbers, annual sales turnover and capital threshold. From the survey (See Table 1), majority of the SMEs operate in labour-intensive sectors such as the Retail and Wholesale (24.9percent), Agriculture/forestry/fishery (16.1percent), Accommodation and food services (10.2percent), and Transportation (7.9percent), with the remaining other sectors (40.1percent).[5] They continued to support the economy by providing mostly self-employment and income and contribute around K3.3 billion (PNG SME Policy, 2016), investing and participating in commercial activities. The Government developed the SME master plan for the country recently after realising the significance of SMEs contribution to economic growth and development.[6] The number of SMEs operating in each industry as a percent of the total SMEs covered in the survey varied (See Table 1). This reflected the nature of the operations as the mines are capital intensive, while operating in the Retail and wholesale, Agriculture/Forestry/Fishing, Accommodation/Food Services

[5] In PNG, SME is a firm operating in both formal and informal sectors, employs between 1 to 30 people, has an annual sales turnover of less than US$0.87 million (K3.0 million) and meets the capital threshold of between U$60,00.00 and U$5.7 million, which varies between industries.

[6] One of the outcome of this plan is the establishment of the SME Accelerator program in 2019 and direct funding support by the Government to SMEs.

and Transportation and Other sectors are labour intensive, which a family can easily venture into and start a SME business.

Table 1: Distribution of SMEs by Industry (percent of Total) - 2020

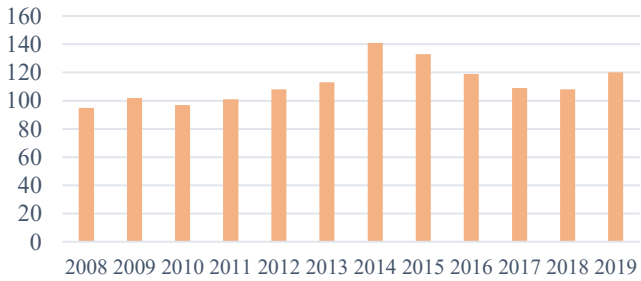
Industry	percent
Manufacturing (*man*)	0.1
Other service activities (*oth*)	0.2
Mining and quarrying (*mnq*)	0.2
Public Administration and defense; compulsory social security (*padcss*)	0.2
Water supply; sewerage, waste management and remediation activities (*wswr*)	0.7
Electricity, gas, steam and air conditioning supply (*egsacs*)	1.3
Human health and social work activities (*hhswa*)	1.7
Real estate activities (*rea*)	1.9
Education (*edu*)	2.0
Information and communications (*inc*)	2.4
Administrative and Support service activities (*assa*)	2.6
Financial and insurance activities (*fia*)	2.6
Wholesale and retail; repair of motor vehicles and motorcycles (*wrrmv*)	2.6
Professional, scientific and technical activities (*psta*)	2.0
Transport and storage (*tns*)	3.2
Construction (*con01*)	3.6
Manufacturing (*man*)	3.9
Building and Construction (*bnc*)	4.1
Arts, entertainment and recreation activities (*aera*)	4.5
Transportation (*tra*)	7.9
Accommodation and food service activities (*afsa*)	10.2
Agriculture, forestry and fishing (*aff*)	16.1
Retail and Wholesale (*wnr*)	24.9

Source: Bank of PNG (Various publication)

2.4 Factors affecting Ease of Doing Business by SMEs in PNG

The factors affecting *Ease of Doing Businesses by SMEs* together with the policy responses to address them vary from country to country. According to UNESCAP (2006), some of the constraints maybe similar and require the same policy responses.[7] The World Bank's 2020 ease of doing business rankings[8] for PNG dropped to 120, relative to other countries (See Figure 8), indicating a less favourable environment less favourable for firms to do business in PNG. Key indicators for ease of doing business worsened and remained over 100 since 2011. There was progress on removing some of the barriers to help improve the ease of doing business, while some remain. These included improving tax measures to cut cost and time in cross-border trading, specifically removing the training levy, which made it less costly to pay tax and the time automation of Customs data management system to make cross-border trading easier

Figure 8: World Bank's Ease of Doing Business Index for PNG (2020)



Source: World Bank

[7] For example, access to finance, technology, human resources, market information, and making necessary adjustments to meet opportunities and face threats of a rapid globalization are common factors facing SMEs.

[8] A lower ranking (e.g. 1) means a most business-friendly country, while a higher ranking (e.g. 120) means a most business-unfriendly country.

3.0 Literature Review

3.1 Theoretical Perspective on the Ease of Doing Business by SMEs

There are a few theories on the factors that affect the *Ease of Doing business by SMEs*. In particular, there are four inter-related theories this paper is aligned and gained valuable insights. Firstly, the *Law of Proportionate Effect/Gibrat Law* developed by Robert Gibrate (1931) (as cited in Samuels, J. M, 1965) tried to measure the firm growth and its initial size. This theory postulated that the growth of a firm was random and independent of its initial size. According to Davis (2002), the law of proportionate effect predicted that the size variability of firms will tend to increase over time because of chance factors and so will lead to increasing concentration even if all the firms face the same costs. Some early studies like Hart and Prais (1956) and Simon and Bonini (1958) supported Gibrat Law, while Evans (1987) and Pasanen (2007) argued that there is no negative relationship between growth and size because smaller firms can actually grow faster than big ones.

Secondly, Edith Penrose (1959) in her book, *Theory of the growth of firm* suggested key principles that should govern the growth of firms and the rate at which firms can grow successfully. She claimed that firms possess both internal and external resources they can use to help them grow and achieve their competitive edge. She proposed that firm size is incidental to the growth process while firm growth is determined fundamentally by the effective use of managerial resources within the firm. This translated to the availability of managerial and technical expertise to serve as the engine of a firm's growth. This suggested that the ignorance of these factors could lead to a firm's failure.

Thirdly, the *Resource-based Theory* traced back to Barney's (1991) article; Firm Resources and Sustained Competitive Advantage. This model saw resources as the key to enhance a firm's performance and growth to achieve competitive edge. This is supported by the assertions that resources are hard to imitate because competitors cannot duplicate and/or substitute them. For example, firm-specific assets such as patents, brand names, human assets and systems that arise from a firm's experience became the basis of their long-term competitive advantage. This can lead firms to be more capable and efficient to adequately meet the changes in the customers' demands.

Fourth, Michael Porter (1985) *competitive advantage theory* postulated that the Governments, firms and households should follow policies that use resources efficiently to produce high quality goods to sell at a premium price at the markets. This is based on the idea that labour is available, while natural resources are not and that firms know their attributes, which they can capitalise on to outperform their competitors.

3.2 Law and order Problems

Law and order problems are major constraints to SMEs as it limits business operations and expansions. Crime and corruption were specific factors highlighted in a number of studies that affected growth of SMEs. For example, studies by Nkwabi and Mboya (2019), Mishra & Smyth (2016), Sharmilee & Hoque (2016), Govori (2013), ADB and INA (2008) and ADB (2014) revealed that crimes make SMEs feel insecure and lose confidence, and costly to procure security measures. They suggested that crime and corruption were hindering the growth prospects of SMEs, which had detrimental effect on the development of SMEs in the long term. ADB in particular, revealed the negative impacts of instability of laws and increasing law and order problems, weak rules and regulations and poor relationship between the Government and the SMEs in the country. Crimes and corruption posed high risks for SMEs, therefore, it is important that the Government strengthen the enforcement of laws and arrest perpetrators of crimes to restore order and reduce these increasing law and order issues to provide the confidence to the SMEs to conduct their businesses.

3.3 Infrastructure

Good, all-weather reliable physical, financial and information communication (ICT) infrastructures are necessary to facilitate business operations and flow of goods and services through the supply chain. Research studies by Nkwabi and Mboya (2019), Gelgelu (2018), ADB and INA (2018), ADB (2014), and Sharmilee and Hoque (2016) highlighted the need for the availability of good infrastructure to support the activity of SMEs to be successful. ADB (2014) in particular highlighted the importance of having a fully established financial infrastructure in PNG to aid SMEs to access financial resources to prosper. Mishra & Smyth (2016) also highlighted the negative impact of a prohibitive ICT network can have on the growth of SME in PNG. These studies showed that good infrastructures are responsible for the growth and success of SMEs in many countries, including PNG. The study by Nkwabi and Mboya (2019) found that having in place good and reliable physical, financial and ICT infrastructures can aid in accessing market information, advancing training, improving enterprise knowledge, accessing appropriate markets and improve connectivity to supply chain, hence increase productivity by SMEs.

3.4 Access to Government Services

Utilities such as electricity, water and telecommunication are key factors that enhance the ease of doing business by firms. Studies by ADB & INA (2018), Zain et al (2018), and Muhammad et al (2015) revealed the importance of having reliable

utility services that can assist SME to grow. ADB and INA (2018) found that unreliable utility services could result in higher costs for the SMEs. However, another paper by Grimm et al (2012) revealed that the economic benefit of electricity, telecommunications and water was mixed, and tended to be negligible for micro and small enterprises. The study found no evidence of the contribution of accessing different utilities on SME performance because the SMEs were participating in different activities, for different reasons, and requiring different resources. This meant that any reforms targeting one-size-fits all is of little or no help.

3.5 Government Regulations and Policies

The World Bank (2020) highlighted that the core of regulations is about the freedom to do business and safeguard the welfare of its citizens. The freedom to do business can give SMEs the freedom to do whatever they want to do, given that they operate within the ambit of the laws of the country. Lyons et al (2014) found that some of the World Bank's Doing Business reforms originally planned to help grow and formalize the SMEs and micro-enterprises gave little attention to the SMEs owned by the poor, while badly served the formalization of SMEs. Several studies such as Njanike (2019), Nkwabi and Mboya (2019), ADB (2018), Zain et al (2018), Amaradiwakara and Gunatilake (2016), Bouazza et al (2015), Raian and Rita (2015), and Branstetter et al (2010) revealed that stability in Government regulations and policies enhanced efficiencies in the way SMEs are treated administratively. The study by Bouazza et al (2015) identified restrictive legal and regulatory framework as a major impediment to the success of SMEs in Algeria. The paper by Raian and Rita (2015) found that positive regulatory changes led to increased business entry and growth, which also highlighted the importance of credit market regulations for SME growth. They also found that burdensome bureaucracy and red tape could act as major disincentives for SME start-up.

ADB (2018) identified lack of clear policy and legal framework, limited institutional capacity and resources, no proper statistical database on SMEs, inefficiencies in regulatory procedures and administrative processes, high cost of taxes and complicated tax administration, corruption and lack of good governance as some of the factors inhibiting the growth and development of SMEs in PNG. Furthermore, the study by Branstetter et al (2010) found that regulatory reforms could reduce the cost of firm entry. It found that reforms resulted in increased firm formation and employment, mainly among small firms, owned by relatively poorly educated entrepreneurs operating in agriculture, construction and retail trade. According to the UNESCAP (2014), compliance with Government’s laws and regulations are very important for SME start-ups and operations. This entailed the time it takes to start a

business, meeting the number of requirements and the cost involved in starting up a business. For example, comparing PNG with the Asia-Pacific region the cost and requirements to start a business are lower in PNG, but can be time consuming.

3.6 Access to Capital and Financial Resources

Accessing finance and capital is an important factor that determined the success of a SME. Various studies like IFC (2020), Njanike (2019), Nkwabi and Mboya (2019), ADB & INA (2018), Gelgelu (2018), OPEC & AFI (2018), Sharmilee and Hoque (2016), Mishra and Smyth (2016), Amaradiwakara and Gunatilake (2016), Muhammad et al (2015), Bouazza et al (2015), Govori (2013), Javed at al (2011), Chuthamas et al (2010), Tran et al (2008), UNESCAP (2006), and Temtime and Pansiri (2004) alluded to the significance of finance and capital for SMEs to operate successfully to achieve their growth targets. According to the OPEC and the Alliance for Financial Inclusion, one of the major hindrances to the survival, growth and productivity of SMEs is the availability and access to finance. AFI recommended that a key element to help this financing landscape for SME was for the regulators and financial players to facilitate their access to credit via innovation and financial technology to grow SMEs. Dalberg (2011) highlighted the financing gap faced by SMEs in developing countries, and proposed for targeted interventions that could close this gap through sustainable lending to the SMEs. This included the need to do a research on closing this financing gap and find out how the effect of increased capital on the different sectors impact the economy and different geographical and socio-economic groups.

3.7 Cross-border Trading

A study conducted by Zain et al (2018) on why SMEs decided to go international revealed three types of influential factors that affected SMEs. These factors were external, internal and networking, which were integral in SMEs engaging in trade. External factors are outside of the SME controls such as political developments, economic and social environment, government regulations, and policy incentives, while internal factors referred to the SME's characteristics, competencies, resources, entrepreneurial orientation and key personnel. Networking is about creating relations with partners that can facilitate quick access to overseas markets. In support of this, the Government in its Trade policy provided opportunities for SMEs to benefit from trade liberalization as the country implements various trade agreements that it is a party to. The idea was to promote joint ventures; building capacity through training and partnerships, and have SMEs representations in all trade negotiation forums.

The study by Nangpiire et al (2018) assessed the ease of doing business and foreign direct investment (FDI) inflows among Sub-African countries. It found that their model explained FDI change of 56percent and that protecting minority investors, trading across borders and resolving insolvency are statistically significant at influencing FDI. The International Trade Center report (2020) highlighted the negative impacts of Covid-19 on trade and the channels that affected small businesses. Covid-19 affected international trade, mainly supply chains and lowering demand. The imposition of lock-downs by Governments, restricting economic activity and movements of cargos along the supply chains across borders also worsened the situation. The study also highlighted the size of the impact in each sector. The services sector, mainly accommodation and food, non-food manufacturing; retail and wholesale; and travel and transportation sectors were severely affected by the Covid-19 pandemic.

3.8 Contract Enforcement

The World Bank (2020) identified contract enforcement as a weak area that needs improvement in PNG. This include longer days to honour and enforce a contract, and in the event of litigation has a high chance of loss, which could result in high cost for SMEs. ADB (2018) identified lack of contract enforcement and compliance due to limited institutional capacity and resources, and inefficiencies in regulatory procedures, and administrative processes as factors inhibiting growth of SMEs in PNG. The report also highlighted the dramatic decline in confidence in law enforcement bodies.

3.9 Other Factors

There were also Other factors identified by various research studies. For example, IFC (2020), Nkwabi and Mboya (2019), and Njanike (2019), UNESCAP (2006), Mishra & Smyth (2016), Rurangirwa (2016), Bouazza et al (2015), Mustafid and Anggadwita (2013), and Temtime and Pansiri (2004), identified human resource, capacity development and innovation as essential factors to grow SMEs. Furthermore, studies by Njanike (2019), Nkwabi and Mboya (2019), Gelgelu (2018), Zain et al (2018), Ndungu (2017), Rurangirwa (2016), Amaradiwakara and Gunatilake (2016), Sharmilee and Hoque (2016), Mustafid and Anggadwita (2013), Muhammad et al (2015), and Javed at al (2011) identified the level of education, experience and skill as critical factors affecting the progress of SMEs. Tran et al (2008) identified competition and innovation, and land accessibility as major constraints on SMEs in Vietnam. Chuthamas et al (2010) identified SMEs characteristics, customer type, and the way of doing business were important to operate successful SME in Thailand. The

study by Bouazza et al (2015) identified lack of human resource capacity, entrepreneur characteristics, limited marketing skills, and low management and technological capacity as influential factors affecting SMEs. Other factors like customer satisfaction, quality of service, experience of the SME, business expansion, resolving problems, cash flow, and the amount of sales and revenue were also important. Mishra and Smyth (2016) identified limited participation by indigenous SMEs, especially low involvement of women, youth and disadvantaged groups and socio-economic conditions as important for SMEs. Rurangirwa (2016) identified finance, great managerial and entrepreneurship skills as important for SMEs success.

The Gap

There are very few studies on the ease of doing business by SMEs in the Pacific, including PNG. This study on the *factors that affect the ease of doing business by SMEs in PNG* aims to address this literature gap. Specifically, it focused on identifying the key factors and their marginal effects on the probability of ease of doing business by SMEs in specific economic sector and by doing so estimate the size of the impact on each industry when one factor changes.

5.0 Data and Methodology

5.1. Data

The Bank of PNG did a comprehensive business pulse survey of 1,763 SMEs using online (Kobo Toolbox), telephone and physical interviews, covering 21 different economic sectors in 13 provinces in PNG. The survey covered the operations, business registrations, the sector they operate, products, sales revenue, costs, number of people they employ, accessibility to banking services, and the factors that affect their operations. The survey response rate was 85percent. The study used the average exchange rate at the end of May 2020, which was US$0.2901 per PGK1.00. The reference period covered in the survey was 31st December 2019 and 31st May 2020.

5.2. Methods

The binary probit response model used the survey data to calculate the *Average Marginal Effect (AME)* to determine the effect of each factor on the probability of ease of doing business by SMEs in each of the industry they operate in, including the impact of Covid-19 in the country. In the probit regression, the study assumed that the

data has the characteristics of a standard normal distribution function of α(z). The response probability can be expressed as:

$$E(Y|X) = P(Y=1|X) = p(x), \text{ then } P(y = 0/x) = 1 - p(x) = \alpha(\beta_0+\beta_1X) \quad (I)$$

α represent the cumulative distribution function (CDF) of the standard normal distribution. $\beta_0+\beta_1X$ plays the role of a quantile z as $\alpha(z)=P(Z\leq z)$, $Z\sim N(0,1)$. In the probit model, the coefficient β_1 in equation (I) is the change in z due to a unit change in X. In multiple regressions, the models are expressed in a similar fashion as equation (I) above.

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \ldots. \beta_nX_n \quad (II)$$

The marginal effect show the changes in the dependent variables (the industries) by an incremental change in the independent variables (factors). Calculating the marginal effect is in fact calculating the differences in probabilities (derivatives), which is informative and make easier the interpretations of the parameters of non-linear models that deal with binary variables bounded by zero and one. Specifically, the study used AME as it produces a summary that reflect the average changes on the probability as the independent variables change by a unit. The summary provided useful information about the covariates on the outcomes as it captured the variability much better.

The marginal effect can be represented as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_1X_2 \qquad /X_1: \quad \frac{\partial y}{\partial x1} = \beta_1 + \beta_3x_2$$

$$/X_2: \quad \frac{\partial y}{\partial x2} = \beta_3 + \beta_3x_1$$

The common formula to estimate AME for dummy variables as used in Bartus (2005) is:

$$AMEi = \frac{1}{n}\sum_{k=1}^{n}\{(\beta x^k|x_i^k = 1) - F(\beta x^k|x_i^k = 0)\}$$

The AMEs calculate the marginal effects of X and take the average of the resulting estimates to capture the variability better and that the estimated outcome is a better reflection of the influence of individual covariates. The AME explain on average the marginal effect of the factors (X) on the probability of the ease of doing business by

SMEs (Y) in each industry. In this study, all positive responses are represented by a one and negative responses by a zero. This show the probability of the dependent variable taking the value 1 if the independent variable change. It is such that if there was improvement in the law and order issue (independent variable), the effect on the probability of activities in the agriculture sector (dependent variable) would improve by certain percentage points. X_1, X_2,…X_n are independent variables which represent the 8 factors like *ags, lno, inf, gop, acr, cbt, cne*, and *oth* that affect each industry. Y is the dependent variable and represent each industry such as *afsa, assa, aff, aera, bnc, con, edu, egsacs, fia, hhswa, inc, man, mnq, psta, padcss, rea, rnw, tns, tra, wswr, and wrrmv.* Each industry is regressed independently from the others, which means that there were 21 regressions and equations initially but they were reduced to 12 because insignificant variables[9] and models were omitted.

6.0 Empirical results

The regressions aimed to see the extent of the impact an incremental change in each factor had on the different industries. Based on the regression results, each factor affected each industry differently. The response variables are the 12 individual industries in which the SMEs operated in, while the regressors are the seven factors that affected each industry. Table 2 presents the regression results, including the coefficients (βs), goodness of fit test, marginal effects and pseudo r^2.

The Pearson Chi-squared goodness-of-fit test on the models used the Hosmer-Lemeshow (H-L) and Andrews (A) tests to observe whether the actual observation fitted the expected probability distribution. The H-L and A tests, test the possibility of having a significant p-value, but still fall short of predicting successes. The method is that, if the difference between the actual and H-L/A were large, the model was rejected as providing insufficient fit to the data. The tests results varied across each model and insignificant models, variables and parameters were deleted. Of the 21 equations, 12 equations appeared robust for analysis, with reduced explanatory variables.

In Table 2, the column contains the independent variables, which are the factors that affect the ease of doing business, coefficients (βs), Standard errors, t-Statistics, marginal effect, goodness of fit test and pseudo r^2. The rows contain the dependent variables (industries). For example, *equation 1* can be expressed generally as:

[9] These variables were omitted because they were insignificant with their phi (p) value greater than 0.05 and the H-L and Andrews good of fit test difference was large.

AFF = f(ACR_I, AGS_I,CBT_I, CNE_I, GOP_I, INF_I, LNO_I, OTH_I).

Specifically, equation 1 (Eq01AFF) can be expressed as:
AFF = -1.34 + 0.44ACR_I + 0.52AGS_I - 1.02CNE_I - 0.30GOP_I + 0.23INF_I - 0.19LNO_I.

Table 2: Regression Results and Marginal Effects

Summary of Regression Result and Marginal Effects

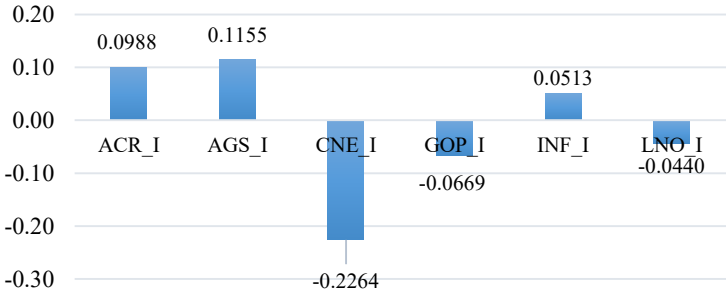
			Dependent Variables												
	Eq Name:		**EQ01_AFF**	**EQ02_AFSA**	**EQ03_ASSA**	**EQ04_BNC**	**EQ05_CON01**	**EQ06_FIA**	**EQ07_INC**	**EQ08_MAN**	**EQ09_REA**	**EQ10_RNW**	**EQ11_TNS**	**EQ12_TRA**
	Method:		**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**	**BINARY**
	Dep. Var:		**AFF**	**AFSA**	**ASSA**	**BNC**	**CON01**	**FIA**	**INC**	**MAN**	**REA**	**RNW**	**TNS**	**TRA**
Independent Variables	***ACR_I***	β_1	0.4447						-0.2878			-0.1999		
		Std. Error	(0.0797)**						(0.1392)*			(0.0697)**		
		t-Stat	[5.5766]**						[-2.0682]*			[-2.8696]**		
		MarEff	0.0988						-0.0132			-0.0606		
	AGS_I	β_2	0.5198	-0.8804				-0.4875						
		Std. Error	(0.0815)**	(0.1452)**				(0.1709)**						
		t-Stat	[6.3806]**	[-6.0644]**				[-2.8524]**						
		MarEff	0.1155	-0.1109				-0.0248						
	CBT_I	β_3		0.9933		-1.1481	-0.7574							-0.6375
		Std. Error		(0.1518)**		(0.3891)**	(0.3832)*							(0.2372)**
		t-Stat		[6.5414]**		[-2.9508]**	[-1.9768]*							[-2.6881]**
		MarEff		0.1252		-0.0910	-0.0559							-0.0864
	CNE_I	β_4	-1.0192	1.0194	1.0186	0.4857						-1.1736		
		Std. Error	(0.2017)**	(0.1435)**	(0.1746)**	(0.1817)**						(0.2071)**		
		t-Stat	[-5.0520]**	[7.1047]**	[5.8351]**	[2.6733]**						[-5.6678]**		
		MarEff	-0.2264	0.1285	0.0451	0.0385						-0.3560		
	GOP_I	β_5	-0.3013	0.2556										
		Std. Error	(0.0808)**	(0.0996)*										
		t-Stat	[-3.7299]**	[2.5652]*										
		MarEff	-0.0669	0.0322										
	INF_I	β_6	0.2311								-0.5324	-0.2172	0.3318	0.4566
		Std. Error	(0.0861)**								(0.2420)*	(0.0796)**	(0.1340)*	(0.0995)**
		t-Stat	[2.6856]**								[-2.1998]*	[-2.7280]**	[2.4760]*	[4.5888]**
		MarEff	0.0513								-0.0184	-0.0659	0.0218	0.0619
	LNO_I	β_7	-0.1979	0.2986	-0.4095			0.3159		-0.3119				
		Std. Error	(0.0882)*	(0.1055)**	(0.1771)*			(0.1430)*		(0.1404)*				
		t-Stat	[-2.2436]*	[2.8301]**	[-2.3116]*			[2.2086]*		[-2.2223]*				
		MarEff	-0.0440	0.0376	-0.0181			-0.0059		-0.0143				
	OTH_I	β_8		0.3336	-0.4551				-0.5724					
		Std. Error		(0.0971)**	(0.1643)**				(0.1684)**					
		t-Stat		[-2.7705]**	[-3.3995]**									
		MarEff		0.0420	-0.0202				0.0011					
		β_8	-1.3358	-1.8569	-1.9268	-1.8623	-1.8306	-1.9436	-1.707	-1.56	-2.0112	-0.4172	-2.0247	-1.4494
		Std. Error	(0.0843)**	(0.0980)**	(0.1388)**	(0.1231)**	(0.1252)**	(0.1383)**	(0.1363)**	(0.1210)**	(0.1635)**	(0.0735)**	(0.1302)**	(0.0963)**
	Observations:		1763	1763	1763	1763	1763	1763	1763	1763	1763	1763	1763	1763
	R-squared:		0.085	0.2328	0.1051	0.0291	0.0193	0.0498	0.0569	0.0247	0.062	0.0439	0.0328	0.0445
	F-statistic:		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Goodness of Fit Test													
	H-L Statistic		0.0012	0.0000	0.5383	0.4153	0.5136	0.0532	0.6129	0.3684	0.0722	0.0174	0.0729	0.0527
	Andrews Statistic		0.0002	0.0000	0.0009	0.0000	0.0023	0.0000	0.0007	0.0000	0.0000	0.0001	0.0000	0.0029
	Difference		***0.0010***	***0.0000***	***0.5374***	***0.4153***	***0.5113***	***0.0532***	***0.6122***	***0.3684***	***0.0722***	***0.0173***	***0.0729***	***0.0498***

Source: Author's calculations

6.1 Marginal Effect on Agriculture/Forestry Fishery (AFF)

The marginal effect of each factor on the probability of ease of doing business in AFF varied (See Figure 9). Having access to credit improved the probability of ease of doing business in the AFF by 9.9percent. Accessing government services improved the probability of ease of doing business in the AFF by 11.5percent. Having good infrastructure also improved the probability of ease of doing business by 5.1percent. While lack of contract enforcement, inappropriate Government policies, increase in law and order issues dropped the probability of ease of doing business by 22.6percent, 7.7percent and 4.4percent, respectively.

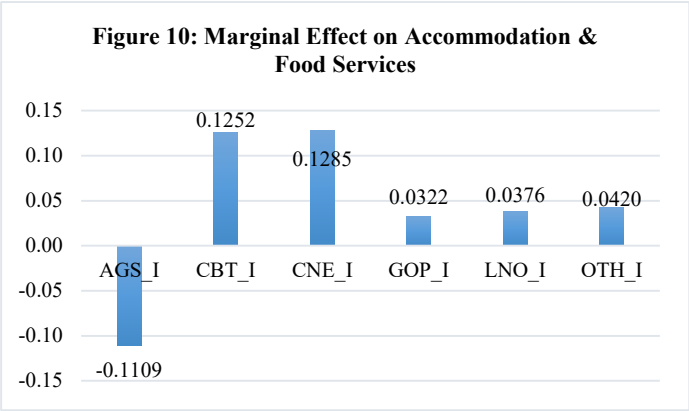
Figure 9: Marginal Effect on Agriculture/Forestry/Fishery



Source: Bank of PNG

6.2 Marginal Effect on the Accommodation and Food Service Activities (AFSA)

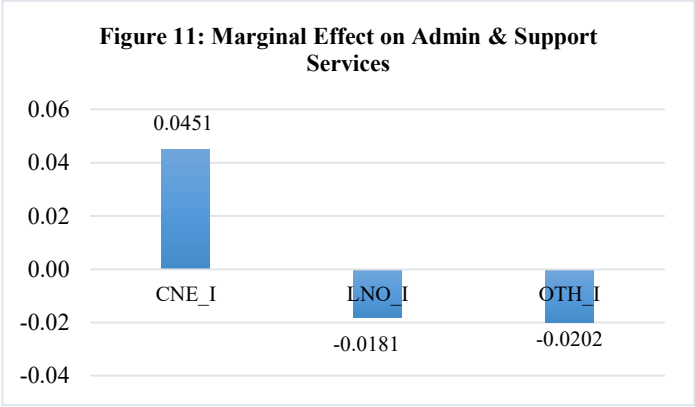
In the AFSA sector, the marginal effect of each factor on the probability of ease of doing business varied (See Figure 10). An efficient cross-border trading improved the probability of ease of doing business by 15.5 percent and contract enforcement by 12.9 percent in this industry. Appropriate Government policies improved the probability of ease of doing business by 3.2 percent and other factors by 4.2 percent. Having access to Government services, however, dropped the probability of ease of doing business by 11.9 percent, reflecting the lack of Government services in rural areas. The marginal effect of increase in law and order issues on the probability of the ease of doing business by SMEs dropped by 3.8 percent.



Source: Bank of PNG

6.3 Marginal Effect on the Administrative and Support Services (ASSA)

In the Administrative and Support services sector, the marginal effect of an efficient Contract enforcement (CNE_I) resulted in an improvement of 4.5 percent in the probability of ease of doing business in the industry, while the marginal effect of increased law and order issues and other factors[10] resulted in a decline of 1.8 percent and 2.0 percent, respectively.



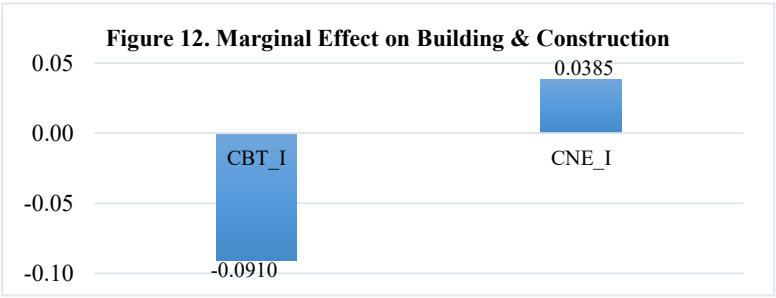
Source: Bank of PNG

[10] Other factors include political support, high tax rates, and cumbersome bureaucratic processes etc.

6.4 Marginal Effect on the Building and Construction industry (BnC)

In the building and construction industry, Cross-border trading and Contract Enforcement affected the probability of the ease of doing business by SMEs. The marginal effect of cross-border trading on the probability of ease of doing business in this industry dropped by 9.0 percent, reflecting delay in processing of import orders of inputs and Covid-19 restrictions. The marginal effect of contract enforcement on the probability of ease of doing business increased by 3.9 percent, reflecting improvement in contract payments, especially by the Government to contractors.

Figure 12. Marginal Effect on Building & Construction

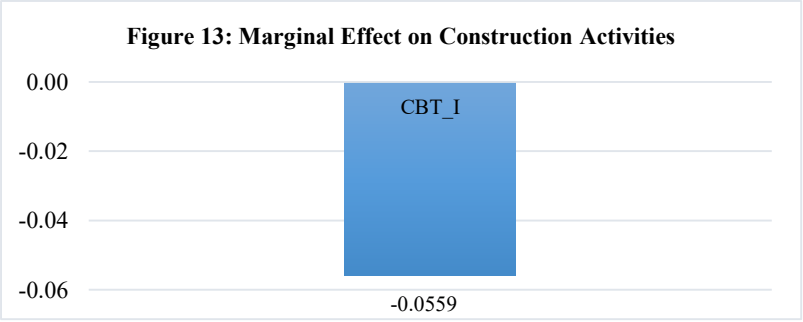


Source: Bank of PNG

6.5 Marginal Effect on the Construction industry (CON01)

In the Construction industry, only cross-border trading appeared to influence activities by SMEs. The marginal effect of cross-border trade on the probability of ease of doing business by SMEs dropped by 5.6 percent, reflecting the Covid-19 restrictions on mobility of goods and services across borders and the delay in processing of import orders, especially equipment and materials needed as inputs.

Figure 13: Marginal Effect on Construction Activities

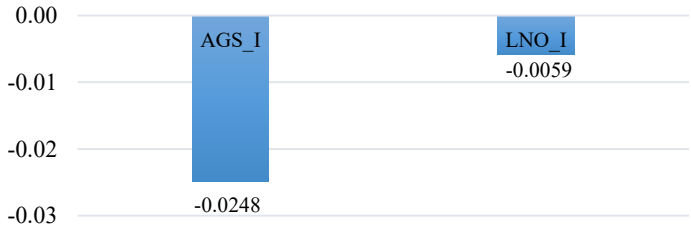


Source: Bank of PNG

6.6 Marginal Effect on the Finance and Insurance Activities (FIA)

In the Finance and Insurance Activity (FIA) sector, lack of access to Government services and increased law and order issues appeared to be the main factors that negatively affected SMEs. The marginal effect of the lack of access to Government services on the probability of ease of doing business dropped by 2.5 percent, while the marginal effect of the increased law and order issues on the probability of ease of doing business dropped by 0.6 percent. This reflected the negative effects of the lack of access to government services and increase in law and order issues on the ease of doing business by SMEs in this sector.

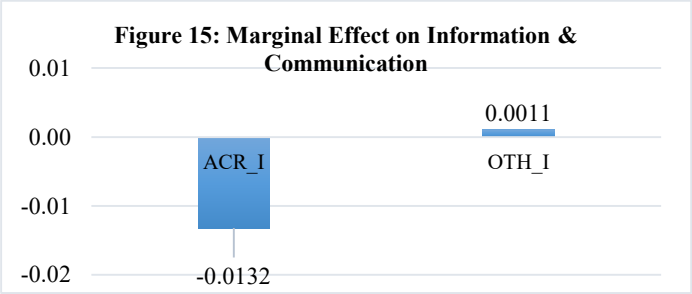
Figure 14: Marginal Effect on Finance and Insurance Activities



Source: Bank of PNG

6.7 Marginal Effect on Information and Communication Services (INC)

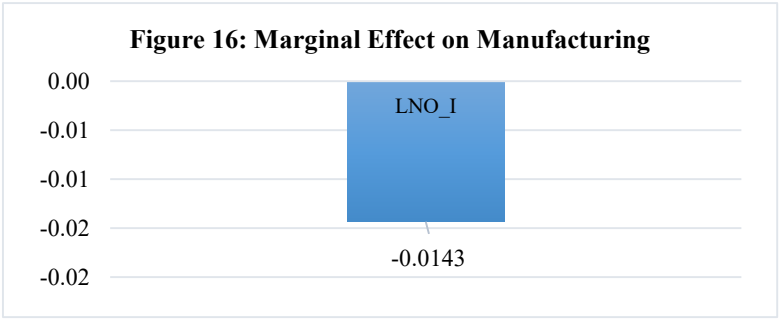
In the Information and Communication services sector, two factors appeared to influence the ease of doing business by SMEs. The marginal effect of access to credit on the probability of ease of doing business fell by 1.3 percent, reflecting inaccessibility and unavailability of financial resources to SMEs in this sector. The marginal effect of Other factors on the probabilbility of ease of doing business in the industry improved marginally by 0.1percent, reflecting improvement in tax administration and political support.



Source: Bank of PNG

6.8 Marginal Effect on Manufacturing Industry (Man)

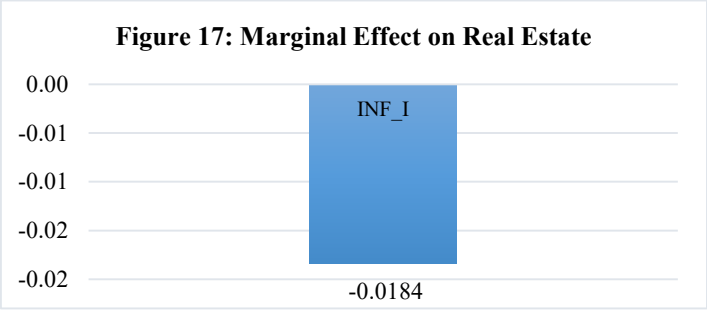
In the Manufacturing industry, law and order appeared to be the key factor affecting the operations of SMEs. The marginal effect of higher incidences of law and order problems on the probability of ease of doing business in this industry declined by 1.4 percent, reflecting the negative implications of increased law and order issues in the industry.



Source: Bank of PNG

6.9 Marginal Effect on the Real Estate Activity (REA)

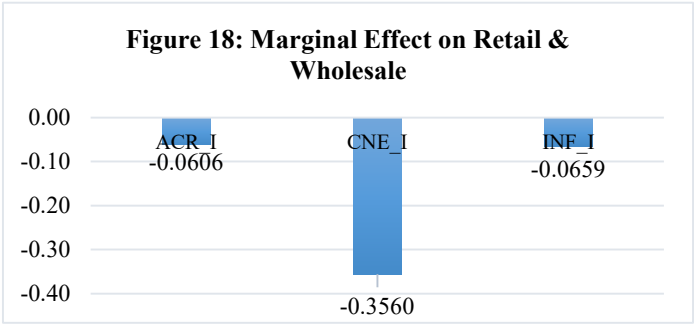
In the Real Estate sector, infrastructure conditions appeared to be the dominant factor affecting SMEs doing business. The marginal effect of a poor state of the infrastructure on the probability of ease of doing business dropped by 1.8 percent, reflecting the poor state of infrastructure condition, especially roads and bridges in most rural areas of the country (See Figure 17).



Source: Bank of PNG

6.10 Marginal Effect on the Retail and Wholesale sector (RNW)

In the Retail and Wholesale sector, three factors appeared significant and negatively contributing to the marginal effect on the ease of doing business by SMEs. The marginal effect of lack of access to credit on the probability of ease of doing business by SMEs dropped by 6.1 percent, lack of contract enforcement on the ease of doing business declined by 3.6 percent, while poor conditions of infrastructures on the probability of ease of doing business by SMEs fell by 6.6 percent. These results reflected that it is important to allow SMEs to have access to financial resources, improve payments for goods and services provided by retail and wholesale firms and upgrade existing conditions of infrastructure, especially roads and bridges to transport goods and services.

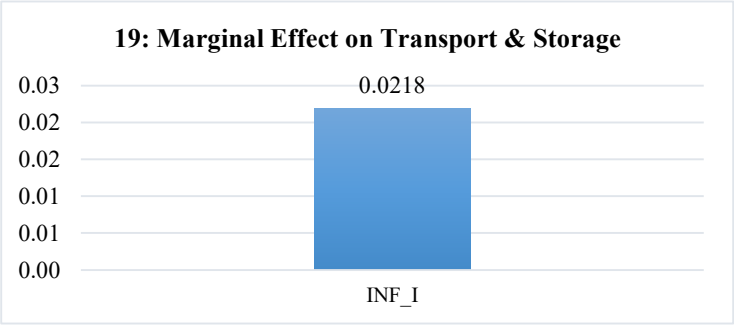


Source: Bank of PNG

6.11 Marginal Effect on Transport and Storage Sector (TNS)

In the Transport and storage sector, infrastructure continued to be the key factor that affect the probability of ease of doing business by SMEs. The marginal

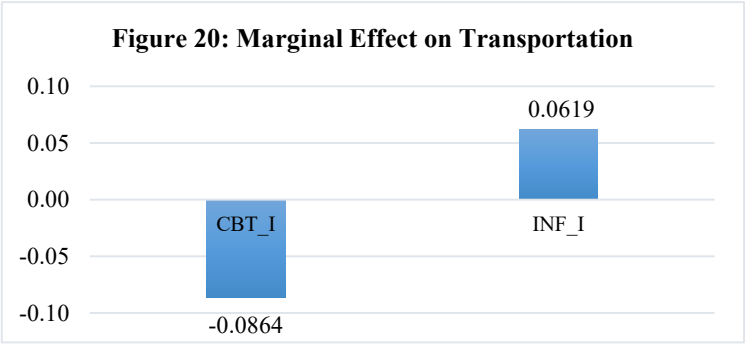
effect of infrastructure on the probability of ease of doing business in the Transport and storage sector increased by 2.2 percent, reflecting some SMEs having access to good roads and improved accessibility to storage areas, mainly those operating in urban areas of PNG.



Source: Bank of PNG

6.12. Marginal Effect of Transportation sector (TRA)

In the Transportation sector, infrastructure and cross-border trading appeared important in determining the activities in this industry. The marginal effect of infrastructure on the probability of the ease of doing business by SMEs improved by 6.2 percent, reflecting SMEs having access to good roads, bridges and other infrastructures. The marginal effect of cross-border trading on the probability of ease of doing business by SMEs dropped by 8.6 percent, reflecting the impact of Covid-19-related restrictions placed on the international borders and the movement of people, goods and services between provinces.



Source: Bank of PNG

7.0 Discussions and Policy Recommendations

The various studies by the OECD, World Bank, ADB, UNESCAP, PWC and other local and international researchers identified various factors that affect the ease of doing business by SMEs. These studies suggested that for SMEs to operate smoothly and successfully, there must exist a SME friendly business environment, enabling policy and regulatory framework with proper infrastructures that enable SMEs to be efficient. The entrepreneurial spirit must be encouraged and imbedded in the owners through appropriate trainings and support, including SMEs accessing low cost financing for their operations. As far as accessing finance is concerned, the Government should remove the bureaucratic red tape in key Government organisations that unnecessarily drag necessary funding and other resources intended for SMEs and relax the strict requirements by the banks to process loans needed by the SMEs.

The SMEs must also have access to the markets and understand how the markets work, including their products and services, costs and competition. SMEs should be encouraged to innovate and use technology to develop further their innovations and products. Policy makers should look at ways to reduce the cost of entry and remove any barriers to entry for new SMEs, identify ways to build and strengthen their networks and allow free flow of information to collaborate with other SMEs, key Government agencies, donors and private industry players. Other factors like policy advocacy, capacity building and direct funding support to SMEs also play important roles to support the growth of SMEs.

The PNG Government has set specific long-term goals in growing the SMEs to maximize their contributions to the economy. According to the Government's SME Policy[11], the overall goal is to make the SME sector become the driver of economic growth and contribute more to GDP, which is consistent with other countries' policies on SMEs. This include increasing the number of SMEs in all the sectors and provide the required jobs, boost citizen control of SMEs to lift the per capita income. To achieve these goals, the Government planned to create an enabling environment, remove all the barriers for SMEs to function, build entrepreneurial mindset of the people, provide easy access to finance, build all-weather infrastructure, provide

[11] http://www.smecorp.gov.pg/index.php/sme-policies

appropriate training and support services. These required that all stakeholders[12] collaborate and coordinate the work towards removing the barriers to SMEs doing businesses highlighted in this study and discussed elsewhere.

Therefore, this study recommends the following:

(a) Make *accessibility to finance* by SMEs easy at minimum and affordable cost. This include the need to review the requirements imposed by banks and financial institutions and the interest rates and fees charged on loans to SMEs. *(b)* Establish a *One-Stop-Shop convenience centre*, where SMEs can get their identifications, registering a business, do tax registration, open bank accounts, and get relevant trainings and education in financial management at the same time. This will address the delays in SME start-up. *(c)* Encourage SMEs to do *online and electronic transactions.* With the advancement of technology, there is now a growing need for SME to do online and electronic transactions, which is the most cost effective and efficient way of settling transactions. *(d)* Build new *infrastructures* and/or improve existing ones. From the study, it showed that all the infrastructures (both physical and soft) are currently deteriorating and there is a great need to rehabilitate all these infrastructures to enhance efficiency and help reduce the costs faced by SMEs based in some remote areas of PNG. *(e) Increase awareness and training* on banking and financial management using financial inclusion training centres (CEFI) for financial management. Include the commercial and micro banks and other financial institutions to make available their financial services and products to the SMEs so that the SMEs are aware. *(f) Develop SME-friendly policies and regulations* combined with a practical enforcement mechanism that may support the growth of SME, which can possibly act as the bridge for the SMEs engaged in informal businesses to migrate to the formal sector. A SME-friendly tax regime, easier IPA registration, accessibility to financial services, including opening of bank accounts may complement this very well. *(g) Subsidize* and make utility costs affordable for SMEs. From the study, the cost of electricity was a big chunk of their expenditure so most of the income they earned was spent on electricity, hence the need to subsidize the cost of this utility. This will go a long way in helping the SME to save cost. *(h) Identify and remove industry specific barriers.* Each factor affects each economic sector differently at different levels. Identify and examine which factor affects which SMEs in which industry and to what extent. This can aid policy makers to use the specific

[12] Stakeholders include Department of Trade, Commerce and industry, Small Medium Enterprises Corporation, Banks (including National Development Bank), Treasury and National Planning Departments, Existing Firms and others.

recommendations above to target specific factors across each industry depending on the extent of the need.

8.0 Conclusion

This study wanted to find out about the factors that affect the ease of doing business and estimate the marginal effects on the probability of ease of doing business by SMEs in individual sectors in PNG using the *AME* calculated from the probit model. Numerous factors affect the ease of doing business by SMEs as highlighted in most of the papers covered in this study. This study through the AME found that each factor affected SMEs in each industry differently, which confirmed that some of these factors are industry specific, while others are generic and apply to all sectors.

The study found that most SMEs in the Agriculture/Forestry/Fishery, Information and Communication and Retail and Wholesale sectors needed *financial resources and capital*. *Accessing basic Government services*, although important, was evident in three sectors, namely Agriculture/Forestry/Fishery, Accommodation and Food Service Activity, and Finance and Insurance Activity sectors. *Efficiency in cross-border trade* affected SMEs in the Accommodation and Food Service Activity, Building and Construction, Construction, and Transportation sectors. *Enforcement of Contracts* affected SMEs in Agriculture/Forestry/Fishery, Accommodation and Food Service Activity, Administrative and Support Services Activity, Building and Construction, and Retail and Wholesale sectors. *Appropriate Government policies* affected SMEs in the Agriculture/Forestry/Fishery, and Accommodation and Food Service Activity sectors. *Good infrastructure conditions* affected SMEs in Agriculture/Forestry/Fishery, Real Estate Activity, Retail and Wholesale, Transport and Storage, and Transport sectors. *Improvement in law and order issues* affected SMEs in Agriculture/Forestry/Fishery, Accommodation and Food Service Activity, Administrative and Support Services Activity, Finance and Insurance Activity, and the Manufacturing sectors. Improvement in *Other factors* affected SMEs in the Accommodation and Food Service Activity, and Administrative and Support Services Activity sectors. These validate the fact that each factor affects each industry differently.

Some of the recommendations for policy reforms are based on the one-size-fits-all assumption that SMEs operating in the Construction sector faced the same constraints as SMEs operating in the Agriculture/Forestry/Fishery sector. This study confirmed that this does not hold. Therefore, identify industry-specific challenges and target all policy interventions towards addressing them to grow the SMEs. This will go a long way in broadening the help to grow SMEs in all the sectors in PNG. The

policy interventions should be broad-based for SMEs to achieve economies of scale and meaningfully contribute towards growing the economy, providing opportunity for registration with the banks, IPA and the tax office. A simplified regulation is required with adequate enforcement ability to address challenges facing the SMEs so that the solutions from registration to operation, including banking and training in financial management act as the bridge that integrate the SMEs from the informal sector into the formal sector.

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