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Driving Growth for SMEs in Laos' Commercial Sector Challenges and Opportunities

Llue Xiong^a

Abstract

The study's focus on the development of small and medium-sized enterprises in Laos, particularly in Vientiane Capital, provides valuable insights into the challenges and opportunities facing this vital sector of the economy. By utilizing data from the nation-wide small and medium-sized enterprises survey conducted by GIZ in 2016 and 2022, the study offers a comprehensive assessment of small and medium-sized enterprises performance and identifies key areas for policy intervention and support. One of the notable findings of the study is the significant growth in the number of small and medium-sized enterprises operating in the commercial sector in Laos over the past few years. This growth underscores the importance of small and medium-sized enterprises as engines of economic growth and employment generation in the country. However, despite this growth, many small and medium-sized enterprises continue to face obstacles, particularly in accessing finance and navigating high levels of competition. Addressing these challenges is crucial to ensuring the sustainable growth and success of small and medium-sized enterprises in Laos. Another important insight from the study is the limited readiness of Lao small and medium-sized enterprises in the commerce sector for regional and international integration. This highlights the need for targeted interventions to enhance the competitiveness and export readiness of small and medium-sized enterprises, including capacity building, market access facilitation, and support for product quality and standards compliance. The study also identifies several factors that have a statistically significant positive effect on SME turnover, including firm assets, number of employees, entrepreneur experience (age), and commercial district location. These findings underscore the importance of resource availability, human capital, and strategic positioning for small and medium-sized enterprises success. On the other hand, factors such as operating years, joint ventures, gender, ethnicity, and education level of the entrepreneur were found to be statistically insignificant in influencing small and medium-sized enterprises turnover. While these findings may indicate areas of less immediate concern, they nonetheless provide valuable insights for policymakers and stakeholders in designing targeted support programs for small and medium-sized enterprises. Overall, the study underscores the importance of tailored policy interventions to support the growth and competitiveness of small and medium-sized enterprises in Laos, particularly in the commercial sector. By addressing key challenges such as access to finance, market integration, and capacity building, policymakers can help unlock the full potential of small and medium-sized enterprises as drivers of economic development and inclusive growth in Laos.

Keywords: Small and Medium-Sized Enterprises, Laos, Commercial Sector, Economic Growth, Policy Interventions

JEL Codes: L25, O14, O53, M13

1. INTRODUCTION

The New Economics Mechanism introduced by the Government of Laos in the 1980s, marked a significant shift towards a market-oriented approach to economic development (Douangchak, 2003). This initiative aimed to bolster the socio-economic growth of Laos and elevate the country's status within the Mekong Sub-Region. By embracing market principles, Laos sought to unleash its economic potential and transition away from its least developed country status. Under the NEM, Laos embarked on various reforms to liberalize its economy and promote private sector participation. These reforms encompassed initiatives such as privatization, deregulation, and the creation of a more conducive business environment to attract domestic and foreign investment (Labeeque & Sanaullah, 2017; Khan, 2017; Vorapeth, 2018; Fatima & Zaman, 2018; Oulay, 2021). By fostering a competitive market environment, the government aimed to spur innovation, enhance productivity, and stimulate economic growth. One of the key objectives of the NEM was to diversify Laos' economy beyond traditional sectors and capitalize on emerging opportunities in areas such as agriculture, manufacturing, and services. By promoting entrepreneurship and investment in strategic industries, Laos aimed to build a more resilient and dynamic economy capable of withstanding global economic shocks. Furthermore, the NEM emphasized the importance of infrastructure development, human capital investment, and institutional capacity building to support sustainable economic growth. By investing in critical infrastructure projects such as transportation networks, energy systems, and telecommunications, Laos aimed to improve connectivity, facilitate trade, and attract investment to underserved regions. Over the years, the implementation of the NEM has yielded mixed results, with progress varying across different sectors and regions. While some areas have witnessed notable economic growth and development, others continue to face challenges such as poverty, inequality, and limited access to basic services (Inthaboualy, 2012; Ismail & Saeed, 2017; Sayyaya & Phommason, 2023; Kongmanila, 2023).

^a Faculty of Economics and Business Management, National University of Laos, Vientiane, Laos

The Government of Laos remains committed to advancing the objectives of the NEM and accelerating the country's economic transformation. Through continued policy reforms, targeted investments, and regional cooperation initiatives, Laos aims to achieve sustainable and inclusive development, improve the well-being of its people, and realize its full potential as a vibrant member of the Mekong Sub-Region. Souvannavong's (2006) analysis underscores the pivotal role of the private sector in driving economic activity and employment generation in Laos. The private sector not only dominates the economy in terms of the number of enterprises but also plays a significant role in providing employment opportunities, with 94% of the workforce employed in private sector enterprises. This highlights the importance of fostering a conducive environment for private sector growth and entrepreneurship to spur economic development and alleviate unemployment. The structure of the Lao economy reflects a diverse landscape of enterprises, ranging from large corporations to micro-enterprises. Large enterprises constitute a smaller proportion of the economy, while small and medium-sized enterprises (SMEs) make up the majority. SMEs, including small-scale agricultural processing, handicrafts, timber production, textiles manufacturing, trading, and internet services, have experienced notable growth and have emerged as key drivers of economic activity (Bird and Hill, 2010).

The growth of SMEs has had multifaceted benefits for the Lao economy. Firstly, it has created new job opportunities, thereby reducing the unemployment rate and improving livelihoods. Secondly, SMEs have contributed to national income through their productive activities, thereby fostering economic growth and poverty reduction. Additionally, SMEs play a vital role in promoting economic diversification, innovation, and competitiveness. The expansion of SMEs underscores the importance of policies and initiatives aimed at supporting their development. This includes providing access to finance, enhancing business infrastructure, facilitating skills development and training, streamlining regulatory processes, and promoting entrepreneurship education. By addressing the needs and challenges faced by SMEs, the government can further harness their potential to drive inclusive and sustainable economic growth in Laos. Laos economy and underscore the importance of fostering an enabling environment for their growth and development. By prioritizing policies that support SMEs, Laos can unlock their full potential as engines of economic growth, job creation, and poverty reduction (Bird and Hill, 2010).

Laos Expenditures and Consumptions Survey 4 (LECS 4, 2007/2008) shed light on the significant prevalence of family-owned businesses, particularly in micro and small-scale enterprises, across households in Laos. The data reveals that approximately 28% of households in the country are engaged in operating at least one family business (Nolintha, 2015). This underscores the widespread participation of households in entrepreneurial activities, reflecting the importance of small-scale enterprises as a source of livelihood and economic activity. A notable disparity is observed between urban and rural areas in terms of the prevalence of family businesses. In urban areas, as many as half of households are involved in running a family business, highlighting the concentration of entrepreneurial activities in urban centers. On the other hand, in rural areas, around one-third of households engage in family business operations, indicating a slightly lower but still significant level of participation in entrepreneurial endeavors (Ardrey et al., 2006).

The high prevalence of family businesses underscores their importance as key contributors to economic activity, employment generation, and household income in Laos. Family businesses play a vital role in driving local economies, fostering innovation, and promoting socio-economic development, particularly in rural areas where they serve as important sources of livelihoods for communities. Understanding the challenges faced by SMEs, including family-owned businesses, is crucial for policymakers seeking to support their growth and sustainability. Addressing these challenges requires a multifaceted approach that encompasses policy interventions, institutional support, capacity building, and access to finance and markets. By addressing the specific needs and constraints faced by SMEs, policymakers can create an enabling environment that fosters their growth, resilience, and contribution to overall economic development in Laos. LECS 4 underscore the significant role of family businesses in the Lao economy and highlight the importance of supporting their development to realize their full potential as engines of inclusive growth and poverty reduction. By prioritizing policies and initiatives that address the challenges faced by SMEs, policymakers can foster an environment conducive to entrepreneurship, innovation, and sustainable economic development in Laos (Newby et al., 2014; Ali & Afzal, 2016; Khan, 2016; Muhammad, 2023).

The development of SMEs in Laos faces numerous challenges and constraints that hinder their growth and sustainability. Chief among these challenges are the lack of capital, limited market demand, intense competition from substitute products/services, and a shortage of access to modern technology. Additionally, inconsistencies in the application of macro-policies aimed at SME development further exacerbate these challenges. The constraint of limited access to capital presents a significant barrier for SMEs in Laos, as securing financing is essential for business expansion, investment in technology, and operational expenses. Without adequate financial resources, SMEs may struggle to innovate, expand their market reach, or even survive in highly competitive environments. Moreover, the limited market demand and intense competition pose significant challenges for SMEs, particularly in sectors with numerous substitute products or services and a crowded marketplace. SMEs must differentiate themselves from competitors, identify niche markets, and develop innovative strategies to attract and retain customers. The lack of access to modern technology further compounds the challenges faced by SMEs in Laos. In an increasingly digitalized world, access to technology is essential for improving efficiency, enhancing productivity, and staying competitive. However, many SMEs in Laos lack the resources and infrastructure to adopt and integrate modern technologies into their operations. Furthermore, inconsistencies in the application of macro-policies for SME development create uncertainty and ambiguity for entrepreneurs, making it difficult to plan and invest in their businesses effectively. Clear and consistent policy frameworks are essential for creating an enabling environment that supports SME growth, innovation, and entrepreneurship. In response to these challenges, entrepreneurs in Laos must acquire business knowledge, marketing and management skills, and leadership competencies

to navigate the complexities of the business environment effectively. Additionally, securing adequate capital and proactively addressing market trends and consumer preferences are essential for SMEs to thrive in dynamic and competitive markets. The constraints facing SMEs in Laos requires a comprehensive approach that encompasses policy reforms, access to finance and technology, capacity building, and support for entrepreneurship and innovation (Vixatthep, 2017). By addressing these challenges, policymakers can create an enabling environment that fosters the growth and sustainability of SMEs, driving economic development and prosperity in Laos.

Building upon the foundational work of Onphanhdala and Suruga (2010), this study seeks to delve deeper into the dynamics of SME entrepreneurship in Vientiane Capital, the economic and administrative center of Laos. While previous research has provided valuable insights into the challenges facing SMEs in Laos as a whole, this study aims to offer a more nuanced understanding of the specific context and experiences of SME entrepreneurs operating in the capital city. One key aspect of this investigation is to explore the pathways through which SMEs are initiated in Vientiane Capital. By examining the entrepreneurial journey of individuals and the factors that motivate them to start their own businesses, this study aims to shed light on the diverse range of entrepreneurial ventures emerging in the city. Furthermore, the study seeks to identify and analyze the challenges that SME entrepreneurs encounter in Vientiane Capital. These challenges may include regulatory barriers, access to finance, market competition, infrastructure limitations, and skills gaps, among others. Understanding the nature and magnitude of these challenges is crucial for developing targeted interventions and support mechanisms to assist SMEs in overcoming them. Moreover, the study aims to investigate how SME entrepreneurs in Vientiane Capital cope with the challenges they face and sustain their ventures over time. This involves examining the strategies, resources, and networks that entrepreneurs utilize to navigate the complexities of the business environment and ensure the viability and growth of their enterprises. Additionally, the study will explore the specific supporting requirements needed for SME promotion and development in Vientiane Capital and the broader context of Laos. This may involve assessing the effectiveness of existing support programs and policies, identifying gaps and areas for improvement, and proposing recommendations for enhancing the ecosystem for SMEs in the city and beyond. Overall, by providing a comprehensive analysis of SME entrepreneurship in Vientiane Capital, this study aims to contribute valuable insights to policymakers, practitioners, and stakeholders involved in promoting SME development and fostering economic growth in Laos. Through a deeper understanding of the challenges, opportunities, and support needs of SMEs, efforts can be directed towards creating an enabling environment that empowers entrepreneurs and facilitates the sustainable growth of SMEs in the capital city and across the country.

2. LITERATURE REVIEW

The study by Kyophilavong et al. (2007) provides valuable insights into the determinants of SME performance in Laos, particularly in Vientiane and other provinces. By employing rigorous statistical methods such as the Logit model and multiple regressions, the researchers were able to analyze a large sample size of over 16,000 SMEs, offering robust findings that contribute to our understanding of the SME landscape in the country. One notable finding of the study is the identification of factors that influence SME performance. Specifically, the study highlights the negative impact of unstable exchange rates and domestic ownership on SME performance. This underscores the importance of macroeconomic stability and foreign investment in supporting the growth and sustainability of SMEs in Laos. On the other hand, factors such as access to capital and labor, as well as the nature of ownership (state-owned vs. private), were found to have positive effects on SME performance, highlighting the significance of these factors in driving business success. However, it is worth noting that the study had limitations in terms of its ability to fully capture the performance of specific subsectors within the SME landscape, such as handicrafts and wood processing. These subsectors may have unique characteristics and challenges that were not fully explored in the study. Future research could aim to address this gap by conducting more targeted investigations into the performance drivers and dynamics of these specific subsectors, providing a more comprehensive understanding of the SME ecosystem in Laos.

The survey conducted by the Ministry of Industry and Handicraft and the United Nations Development Organization (UNIDO) in 2001 sheds light on the challenges confronting SMEs in Laos, particularly in Vientiane and other provinces. With a sample size of 200 SMEs, the survey provided valuable insights into the constraints hindering the growth and competitiveness of these enterprises. One of the key findings of the survey was the persistent challenge of limited access to finance faced by SMEs in Laos. This constraint has long been recognized as a major barrier to SME development, limiting their ability to invest in technology, expand operations, and enhance productivity. Additionally, the survey highlighted issues related to production inefficiency, indicating that SMEs may face difficulties in optimizing their production processes and improving overall efficiency. In response to these challenges, the survey recommended various measures aimed at enhancing the competitiveness of SMEs. Among these recommendations, improving management skills and technological capabilities emerged as key priorities. By investing in training and capacity-building initiatives, SMEs can strengthen their management practices, adopt modern business techniques, and leverage technology to improve operational efficiency and competitiveness.

The joint study conducted by the Asian Development Bank (ADB) and the World Bank in 2007 provided a comprehensive analysis of the investment climate in Laos, drawing on data from the Investment Climate Survey (ICS) conducted in 2005. While this study offered valuable insights into various aspects of the business environment in Laos, including factors influencing investment decisions and perceptions of business regulations, there remained a notable gap in research focusing specifically on the innovativeness, market expansion, networking, and competitiveness of SMEs in the country. Recognizing this gap, the present paper aims to address the need for a deeper understanding of the challenges and opportunities facing SMEs in Laos, particularly in terms of their capacity for innovation, strategies for market expansion,

networking practices, and overall competitiveness. By delving into these critical dimensions of SME development, the paper seeks to provide valuable insights that can inform policy interventions, support programs, and business strategies aimed at enhancing the growth and sustainability of SMEs in Laos. Through a combination of empirical research, qualitative analysis, and stakeholder consultations, this study aims to shed light on the factors influencing SME performance and identify key areas for improvement. By uncovering the barriers to innovation, market expansion, and competitiveness faced by SMEs, as well as highlighting best practices and success stories, the paper endeavors to provide actionable recommendations for policymakers, development practitioners, and SME owners and managers.

The success of micro and small enterprises (MSEs) in developing countries is influenced by a complex interplay of factors, ranging from the owner's individual characteristics and capabilities to broader socio-economic conditions. While much attention has been given to understanding the determinants of large firms' performance, relatively little is known about the specific factors that drive the success or failure of MSEs in these contexts. MSEs face a multitude of constraints that can hinder their growth and sustainability. These constraints include limited access to financial resources, deficiencies in management and marketing skills, shortages of skilled labor, challenges in accessing external information and market linkages, difficulties in navigating government regulations, and constraints in adopting new products or technologies due to organizational and marketing limitations. Additionally, MSEs may exhibit tendencies such as resistance to change, short-term focus, lack of strategic vision, and insufficient attention to innovation. Studies by Tanabe and Watanabe (2005) and Scozzi et al. (2005) have shed light on these challenges, highlighting the multifaceted nature of constraints facing MSEs in developing countries. These constraints not only impede the growth and productivity of individual enterprises but also pose broader challenges to economic development and poverty reduction efforts. Addressing the constraints faced by MSEs requires a multifaceted approach that encompasses policy interventions, institutional support, and capacity-building initiatives. Policymakers and development practitioners can play a crucial role in facilitating access to finance, providing targeted training and technical assistance, fostering an enabling regulatory environment, and promoting innovation and entrepreneurship. Moreover, efforts to strengthen MSEs' access to markets, information, and networking opportunities can enhance their competitiveness and resilience in the face of economic shocks and uncertainties.

Barringer and Ireland (2008) described common traits observed in successful entrepreneurs. Firstly, they noted a profound passion for their business endeavors and a firm belief in the transformative potential of their products or services. This passionate drive often stems from a desire to make a positive impact on society and address unmet needs in the market. Successful entrepreneurs are deeply committed to their vision, viewing their work as a means to contribute to the betterment of the world. Secondly, successful entrepreneurs exhibit a strong focus on understanding their customers and developing products or services tailored to meet their needs. They possess a keen sense of market dynamics and actively seek out opportunities to innovate and provide unique value propositions. This customer-centric approach enables them to differentiate themselves from competitors and build lasting relationships with their target audience. Furthermore, resilience and tenacity are defining characteristics of successful entrepreneurs. The journey of entrepreneurship is fraught with challenges and setbacks, yet successful individuals demonstrate an unwavering determination to overcome obstacles. They view failure as an opportunity for growth and learning, persisting in their efforts to achieve their goals despite adversity. Finally, successful entrepreneurs excel in execution intelligence, effectively translating their ideas into tangible business ventures. They possess strong organizational and leadership skills, capable of developing robust business models, assembling talented teams, securing funding, and forging strategic partnerships. Their ability to execute key decisions and navigate complex challenges is instrumental in driving the growth and success of their enterprises.

Several studies have emphasized the significant role of human capital in enhancing entrepreneurial performance (Bosma et al., 2002; Cooper et al., 1994; Kurosaki & Khan, 2004; Gimeno et al., 1997; Honig, 1998). This assertion is grounded in the understanding that entrepreneurship plays a pivotal role in modern knowledge-based economic activities. Within the realm of human capital, two distinct categories are often delineated: general human capital, primarily represented by education, and specific human capital, characterized by specialized skills or experience. Education constitutes a form of general human capital, encompassing knowledge and skills that are broadly applicable across various domains and industries. Individuals with higher levels of education typically possess a foundation of theoretical knowledge and practical skills that can be leveraged in diverse entrepreneurial endeavors. The acquisition of formal education equips aspiring entrepreneurs with critical thinking abilities, problem-solving skills, and a comprehensive understanding of business principles, thereby enhancing their capacity to navigate the complexities of entrepreneurship. In contrast, specific human capital pertains to skills or experience that are tailored to a particular context, such as a specific industry or organizational environment. This form of human capital is characterized by expertise and proficiency in specialized areas relevant to a particular firm or sector. Entrepreneurs who possess specific human capital may have acquired industry-specific knowledge, technical skills, or experiential insights that confer a competitive advantage within their chosen domain. Their specialized expertise enables them to innovate, adapt, and capitalize on opportunities within their niche markets, driving entrepreneurial success and competitive differentiation.

Given that access to credit serves as a primary avenue of support for SMEs in low-income economies, it is imperative to scrutinize the recipients of credit assistance from bilateral and multilateral agencies, governmental bodies, and non-governmental organizations. A detailed examination of SME owners who have received credit support offers valuable insights into the efficacy and impact of financial interventions on business viability and growth prospects. By analyzing the profiles and outcomes of firms that have benefited from credit facilities, stakeholders can glean valuable lessons and best practices for promoting sustainable entrepreneurship and fostering economic development. The constraint of insufficient financial capital within the informal sector has been extensively documented in academic literature and empirical studies. Researchers have underscored the pervasive challenges faced by SMEs in accessing adequate financial

resources to fuel their operations and expansion efforts (Hashemi et al., 1996; Holt & Ribe, 1991). These constraints impede the ability of SMEs to invest in productive assets, upgrade technology, and innovate, thereby limiting their growth potential and inhibiting their contributions to economic prosperity. Studies on the development of small and medium-sized enterprises (SMEs) in Laos have underscored their significant contribution to employment generation and economic transition. According to the International Labour Organization (ILO) report in 2002, SMEs played a pivotal role in providing employment opportunities amidst Laos' economic transformation. It was estimated that SMEs constituted the most dynamic non-agricultural labor force in rural regions, with the workforce primarily comprising enterprise owners and unpaid family members. In many instances, SMEs in Laos operate as micro family businesses, with entrepreneurship deeply embedded within household structures. While some entrepreneurs are engaged in purely micro-level enterprises, others are situated within farmer households, where their activities typically do not directly contribute to agricultural labor. Instead, these SMEs serve as vital sources of income diversification and economic resilience for rural communities, offering alternative avenues for livelihood enhancement beyond traditional farming activities.

Tachibana (2010) delves into the decision-making process behind entrepreneurial choices in Laos, specifically focusing on the rational choice between traditional and entrepreneurial activities. The study highlights that experiences with foreign institutions play a crucial role in facilitating entrepreneurial decisions, particularly in modern manufacturing sectors. These experiences help entrepreneurs navigate uncertainties associated with new business opportunities. Additionally, entrepreneurs who leverage connections with government offices tend to opt for traditional products, such as furniture. Southiseng and Walsh (2010) explore competition and management challenges faced by SME entrepreneurs across various provinces in Laos. Their findings reveal intensified competition in the sector, driven by the introduction of substitute products. This heightened competition, coupled with significant bargaining power for buyers, results in a high influx of new entrants into limited product/service markets. However, competition in terms of price and quality remains relatively low. SMEs encounter obstacles in accessing modern technology and finance, while facing constraints related to capital and skill resources. Management styles often prioritize short-term objectives, with few businesses focusing on long-term sustainability. Human resource management and capacity building are viewed primarily as cost centers rather than investments in future growth.

Onphanhdala and Suruga (2010) analyze the determinants of SME performance across various industry sectors and geographical regions in Laos. Their study emphasizes the importance of investing in basic education as a key strategy for development. While business experience yields minimal impact on performance, the study highlights a narrowing gap between urban and rural areas, as well as Lao and ethnic minority groups, particularly among the younger generation. Gender disparities among entrepreneurs, previously evident in other reports, are refuted across regions, demographic groups, and generations.

Recent research has identified several challenges confronting SMEs in Laos' commercial sector. A study by Souvannakhot et al. (2021) highlighted the lack of access to finance as a significant obstacle for SMEs, stemming from limited banking infrastructure and stringent collateral requirements. Additionally, inadequate access to skilled labor and limited technological capabilities were identified as barriers to SME growth, hindering their competitiveness in the global market (Phomvixay & Oudom, 2022).

The policy environment and institutional support play a crucial role in addressing the challenges faced by SMEs in Laos. Research by Sisouphanthong et al. (2023) examined the effectiveness of government policies and programs aimed at promoting SME development. Their findings underscored the importance of targeted interventions, such as access to credit schemes and capacity-building initiatives, in enhancing the resilience and sustainability of SMEs in Laos.

Market access and internationalization present significant opportunities for SME growth in Laos. A study by Bounthavy et al. (2022) explored the potential of cross-border trade and regional integration initiatives, such as the ASEAN Economic Community (AEC), in expanding market opportunities for Lao SMEs. Their research highlighted the need for SMEs to leverage regional trade agreements and enhance their export capabilities to tap into emerging markets and diversify their customer base.

Digital transformation and innovation have emerged as key drivers of SME growth in Laos. Research by Phengsengkham et al. (2021) investigated the adoption of digital technologies among Lao SMEs and its impact on business performance. Their findings indicated that SMEs embracing digitalization experienced improvements in operational efficiency, customer engagement, and market competitiveness. Moreover, fostering a culture of innovation and entrepreneurship is essential for unlocking the full potential of SMEs in Laos (Vongphachanh & Sengmany, 2023).

3. THE MODEL

The first part provides an overview of SMEs in the country, including an assessment of promotional policies, trends, and developments. The second part employs econometric techniques to analyze the performance of SMEs using data from GIZ surveys conducted in 2007 and 2009, focusing on enterprises in the commercial sector in Vientiane Capital. Additionally, it evaluates promotional policies implemented to support SME growth and development. By examining trends and developments, this part sets the groundwork for the subsequent analysis of SME performance. The basic empirical model specification is derived from previous studies and is formulated as follows:

$$TO = f(AS, L, OP, Male, Age, Laoeth, Schooling, Joinven, CD)$$

Where:

TO= represents the firm's turnover.

AS = denotes firm assets in 2022.

L = signifies the total number of laborers, including permanent, family members, and part-time workers.

OP = represents the operating years of the firm.

(Male), (Age), (Laoeth), and (Schooling) are dummy variables indicating the entrepreneur's sex (male), age, Lao-ethnicity, and higher education (beyond high school), respectively.

Joinven = indicates whether the firm is a joint venture.

CD = represents dummy variables for the firm's business type, including wholesale, manufacturing, and construction.

Due to limitations in the dataset, the turnover variable is observed using closed-end questions. Consequently, the dependent variable is a continuous, unmeasured latent variable, categorized based on turnover thresholds. An ordered probit model is employed to estimate the equation, considering the ordinal nature of the dependent variable.

By employing econometric techniques, this study seeks to provide insights into the factors influencing SME performance in Laos, thereby informing policy decisions and fostering the growth of the SME sector. This combined approach enables a comprehensive analysis of SMEs in Laos, encompassing both descriptive and empirical aspects. By integrating qualitative and quantitative methodologies, this study aims to offer valuable insights into the dynamics of the SME sector and its role in the economic development of Laos. Since the restricted in the data set, the turn over variable is observed in a closed end question. Therefore, our dependent variable is a continuous, unmeasured latent variable which equal to 0 when the firm's turn over is less than 200 million kip, equal to 1 if firm's turn over is between 200 – 400 million kip, equal to 2 if firm's turn over is between 400 – 700 million kip, equal to 3 if firm's turn over is between 701 – 1,000 million kip, and equal to 4 if firm's turn over is more than 1,000 million kip. In order to estimate the equation above, ordered probit model will be applied.

4. RESULTS AND DISCUSSIONS

This regression analysis offers insights into the factors influencing the ordered categorical variable "To." While some independent variables show significant associations with "To," others do not appear to have statistically significant impacts. The model's overall significance and goodness of fit indicate its utility in understanding and predicting the observed variations in the dependent variable. Further analysis and interpretation could delve into the practical implications of these findings in the relevant domain. The table 1 presents the results of an ordered probit regression analysis, aiming to understand the relationship between various independent variables and the dependent variable "To," which appears to be an ordered categorical variable.

This significant positive relationship between "As" and "To" suggests that changes in the variable "As" have a notable impact on the expected value of "To." Such findings are crucial for understanding the dynamics of the relationship between these variables and can offer valuable insights for decision-making processes. For instance, stakeholders and policymakers may use this information to predict how adjustments in "As" could influence the outcome variable "To" and thus make more informed strategic decisions. Moreover, the strength and direction of this relationship provide empirical support for the hypothesis or theoretical framework underlying the study. In this case, the observed positive correlation aligns with expectations or previous theoretical assertions, reinforcing the validity of the research findings. It also opens avenues for further exploration into the underlying mechanisms driving this relationship. Future research could delve deeper into the specific factors or pathways through which changes in "As" exert influence on "To," enhancing our understanding of the complex dynamics at play. From a practical perspective, recognizing the significance of "As" as a determinant of "To" underscores the importance of monitoring and managing this variable effectively. Organizations or entities seeking to optimize outcomes related to "To" may consider strategies to control or manipulate "As" in ways that align with their objectives. This could involve implementing targeted interventions, policies, or operational changes aimed at modifying the value of "As" to achieve desired outcomes for "To." The identification of a statistically significant positive relationship between "As" and "To" sheds light on an important aspect of the relationship between these variables. It highlights the interconnectedness of various factors and underscores the need for comprehensive analysis when examining complex systems or phenomena. Further research and practical applications guided by these insights can contribute to more effective decision-making and resource allocation in diverse contexts.

The statistically significant positive association between the variable "L" and "To" suggests that changes in "L" have a discernible effect on the expected value of "To." This finding implies that alterations in the variable "L" may lead to corresponding changes in "To," providing important insights for understanding the determinants of the outcome variable. Stakeholders and decision-makers can leverage this information to assess the potential impact of interventions or strategies aimed at modifying "L" on the overall outcome of interest. Conversely, the non-significant impact of the variable "OP" on "To" indicates that variations in "OP" do not exert a significant influence on the expected value of "To." While this result may seem counterintuitive or unexpected based on prior assumptions or theoretical considerations, it underscores the importance of empirical analysis in validating hypotheses and identifying relevant factors driving outcomes. Further investigation may be warranted to explore potential reasons for the lack of significance and to determine whether other variables or contextual factors may mediate or moderate the relationship between "OP" and "To." These findings contribute to a nuanced understanding of the factors influencing the outcome variable "To" and highlight the complexity of the underlying relationships. They underscore the need for comprehensive analysis and careful interpretation of results when examining multivariate relationships in research or decision-making contexts. Additionally, they emphasize the importance of considering both statistically significant and non-significant findings in informing theoretical frameworks, practical applications, and future research directions.

The non-significant relationships observed for the independent variables "Male," "Laoeth," "Schooling," "Joinven," and "Year 2022" indicate that changes in these variables do not have a statistically discernible impact on the expected value of "To." While this may suggest that these factors do not play a significant role in influencing the outcome variable

"To" within the current model framework, it is essential to consider potential interactions or nonlinear effects that may not have been captured in the analysis. Further exploration or refinement of the model may be necessary to elucidate the true nature of these relationships and their implications for understanding the phenomenon under study.

Table 1: Results of ordered probit

Dependent variable: Independent variables	<i>To</i>
As	0.651*** (0.117)
L	0.012** (0.005)
OP	-0.031 (0.029)
Male	0.086 (0.282)
Age	0.055*** (0.016)
Laoeth	-0.118 (0.456)
Schooling	-0.096 (0.062)
Joinven	0.400 (0.714)
CD	1.278*** (0.417)
Year 2022	1.843*** (0.338)
Observations	90
Log – likelihood	– 93.31
Prob > Chi 2	0.000
Pseudo R ²	0.35

In contrast, the significant associations observed for "Age," "CD," and "Year 2022" underscore their importance as determinants of the outcome variable "To." The statistically significant relationships suggest that variations in these variables are associated with corresponding changes in the expected value of "To," providing valuable insights into the factors driving the outcome of interest. Stakeholders and researchers can use this information to prioritize interventions or policies targeting these influential variables and to better understand their role in shaping outcomes. These results highlight the complexity of the relationships between independent variables and the outcome variable "To" and emphasize the importance of robust statistical analysis in uncovering meaningful associations. They underscore the need for careful interpretation and consideration of both significant and non-significant findings in informing theoretical frameworks, empirical investigations, and practical applications in research and decision-making contexts.

The utilization of 90 observations in the regression model provides a substantial dataset for analysis, enhancing the reliability of the findings. The log-likelihood value serves as a crucial indicator of how well the model fits the observed data, with a higher value suggesting a better fit. The significant p-value associated with the chi-square test underscores the overall significance of the regression model, indicating that at least one of the coefficients in the model is statistically different from zero, thus supporting the validity of the model in explaining the variation in the dependent variable "To." The pseudo R-squared value of 0.35 signifies that the independent variables collectively account for 35% of the variance observed in the dependent variable "To." While this indicates a moderate degree of explanatory power, it also implies that a significant portion of the variability in "To" remains unexplained by the variables included in the model. This highlights the presence of other factors or variables not accounted for in the current analysis, suggesting avenues for further investigation and model refinement to improve the overall explanatory capacity of the regression model. These metrics provide valuable insights into the adequacy of the regression model in capturing the relationship between the independent and dependent variables. They underscore the importance of considering both the statistical significance and practical significance of the findings in interpreting the results and drawing meaningful conclusions from the analysis.

5. CONCLUSIONS

This study shed light on the performance determinants of SMEs operating in the commerce sector in Vientiane Capital. One of the key insights gleaned from our analytical model is the significant influence of firm-specific factors such as assets, labor force size, firm age, and location on SME performance. Our analysis reveals that firm size, as reflected by assets and number of labor, emerges as a crucial factor impacting SME performance. Larger assets and a greater number

of employees tend to be associated with higher performance levels, suggesting economies of scale and enhanced operational capabilities in larger firms. Furthermore, the age of the firm is identified as another significant determinant of SME performance. Older firms may benefit from accumulated experience, established networks, and brand reputation, which contribute to their competitive advantage and performance outcomes. Moreover, the geographical location of SMEs is found to play a pivotal role in shaping their performance. Factors such as proximity to markets, infrastructure accessibility, and regulatory environment may vary across locations, influencing the operational efficiency and market competitiveness of SMEs. The significance of assets, labor force size, firm age, and location, this study provides valuable insights for policymakers, practitioners, and entrepreneurs seeking to enhance the performance and sustainability of SMEs in Vientiane Capital. The observed positive relationship between firm size, as indicated by assets and labor force size, and SME performance aligns with the conventional wisdom that larger firms tend to enjoy economies of scale and operational efficiencies, thus yielding higher performance outcomes. Moreover, the positive impact of firm age on SME performance highlights the significance of accumulated experience and learning over time. Older firms may have honed their operational processes, established networks, and refined strategies, enabling them to achieve superior performance compared to their younger counterparts. The notable finding regarding the favorable performance outcomes of SMEs located in commercial districts underscores the importance of geographical proximity to markets, infrastructure, and business ecosystems. SMEs situated in commercial hubs may benefit from enhanced visibility, accessibility to customers, and networking opportunities, all of which contribute to their competitive edge and performance. In short, this study underscores the critical role of SME characteristics, including firm size, age, and location, in shaping performance outcomes in the commerce sector of Vientiane Capital. By elucidating these key determinants, the study provides valuable insights for stakeholders aiming to foster the growth and sustainability of SMEs in the region.

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