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THE GOVERNMENT SUPPORT AND VALUE CHAIN MANAGEMENT AFFECT THE BUSINESS PERFORMANCE IN THE NORTHEASTERN BORDER TRADE AREA OF THAILAND

Abstract:

The research aimed to examine the influence of government support and value chain management on business performance in Thailand's northeastern border trade area. A questionnaire with a reliability coefficient (0.96) at a very high level was used in this study. Area sampling collected 307 small and medium enterprises from Ubon Ratchathani and Mukdahan provinces. The statistics were descriptive and multiple linear regression analysis. The results showed that thirteen sub-independent variables correlated with the business performance at a very high level (r = 0.88) and can explain or predict the variance of business performance at a high level with 76% (Adjusted R Square = 0.76). Four variables affect the business performance with statistical significance at 0.01** and 0.05*, which were the regression coefficient of marketing and sale of the value chain (β = 0.40**), human resource management (β = 0.24**), Inbound logistics (β = 0.16), and government support of export
(β = 0.12) *, respectively. So, entrepreneurs should focus on developing robust marketing strategies, utilizing digital tools and social media to enhance visibility while conducting market research to tailor their offerings. Investing in employee training and fostering a positive workplace culture will enhance human resource management. Streamlining supply chain processes and implementing effective inventory management can optimize inbound logistics. Additionally, staying informed about government support programs and collaborating with other businesses will help maximize benefits. For the government, enhancing export support programs through increased awareness and workshops, promoting business development initiatives like grants for marketing and technology investments, improving logistics infrastructure, and conducting ongoing research to assess SME needs are crucial for fostering a competitive business environment in the northeastern border trade area of Thailand.

Keywords:

Government Support, Value Chain Management, Business Performance, SMEs

JEL Classification: A11

1. Introduction

Thailand holds a strategic geographical advantage due to its central position among neighboring countries, enhancing its connectivity and fostering border trade with the CLMM nations—Cambodia, the Lao People's Democratic Republic (Lao PDR / Laos), Myanmar, and Malaysia. This advantageous location has contributed to a steady expansion of border trade, resulting in increased economic activity in border regions. According to data from the Department of Foreign Trade (2025), the total value of border trade in February 2025 reached 86,543 million baht, reflecting an 8.9% increase compared to the same period in the previous year. Of this total, exports accounted for 50,820 million baht, an increase of 5.6%, while imports amounted to 35,723 million baht, up by 13.8%. Among the CLMM countries, Lao PDR recorded the highest export value at 28,078 million baht, showing an 8.4% year-on-year increase. This was followed by Malaysia with 25,401 million baht in exports (a 15.6% increase), Cambodia with 15,594 million baht (a 15.0% increase), and Myanmar with 17,470 million baht, which saw a 3.3% decrease (Department of Foreign Trade, 2025) (see Table 1).

Table 1: Export Value in Thai Border Trade Zones Between Neighboring Countries in February 2025

Country	**Total Value** (million baht)	**Export** (million baht)	**Import** (million baht)	**Total Value Expanded (%)**
Laos	28,078	15,115	12,964	+ 8.4%
Malaysia	25,401	13,697	11,704	+ 15.6%
Myanmar	17,470	10,027	7,443	- 3.3%
Cambodia	15,594	11,982	3,612	+15.0%
Total	86,543	50,820	35,723	+8.9%

These figures highlight Laos's significance in Thailand's border trade. Notably, the northeastern region of Thailand contains several provinces that share borders with Laos, including Nong Khai, Bueng Kan, Nakhon Phanom, Mukdahan, and Ubon Ratchathani. These provinces play a vital role in cross-border commerce and possess substantial potential to be developed into logistics hubs and international trade centers (Department of Foreign Trade, 2025). Small and medium-sized enterprises (SMEs) are integral to Thailand's border trade, particularly with the Lao People's Democratic Republic (Lao PDR). SMEs are deeply embedded in local trade ecosystems (Office of SMEs Promotion [OSMEP], 2023). These enterprises possess a unique advantage due to their strong ties to local communities, cultural familiarity, and operational flexibility, which allow them to quickly adapt to market fluctuations, consumer behavior, and regulatory shifts (Pholphirul, 2021). Their localized presence makes them well-suited to drive cross-border commerce, logistics, and supply chain activities. This importance is reflected in trade data in February 2025, many of these exports, such as agricultural goods, processed foods, and construction materials, originate from SMEs (Office of SMEs Promotion, 2023). In addition to production, SMEs are instrumental in logistics, warehousing, and distribution in border areas, strengthening trade infrastructure and providing stable employment for residents. Their contributions support the broader economic landscape by stimulating demand, reducing income disparities, and sustaining trade momentum with neighboring countries. Recognizing this role, the Thai government has prioritized SME development as part of its regional trade strategy. Initiatives like the "SME Go Inter" program aim to enhance SMEs' competitiveness in international markets by providing access to finance, export training, and digital platforms (Ministry of Commerce, 2023). These programs are especially impactful in border provinces, where strong SME ecosystems can help transform regions into trade and logistics hubs. High-performing SMEs are more likely to invest in innovation, improve product standards, and integrate into regional value chains, reinforcing Thailand's export capacity and alignment with broader economic integration goals (Liu, 2019). Ultimately, the performance of SMEs has far-reaching implications for Thailand's border trade and regional development. Their ability to grow, innovate, and connect with cross-border markets directly supports GDP growth, employment, and trade expansion. In provinces with limited economic alternatives, thriving SMEs enhance economic resilience, reduce migration

pressures, and promote inclusive growth (Harvie, Narjoko, & Oum, 2015). Conversely, barriers such as limited financing, digital exclusion, and inadequate infrastructure hinder their growth and reduce their impact. Strengthening SME capabilities, therefore, is not only a strategic economic priority but also a key to sustaining equitable development across Thailand's border regions. The performance of small and medium-sized enterprises (SMEs) is closely linked to the efficiency and adaptability of their value chains. Recent research from 2020 to 2024 underscores how strategic investments in various value chain components—such as sustainability practices, digital transformation, branding, and innovation—can significantly enhance business outcomes. Sustainable Supply Chain Management (SSCM): Implementing SSCM practices has positively impacted business performance. A case study on Huawei revealed that sustainable supply chain initiatives led to cost reductions, increased customer loyalty, and improved reputation, all contributing to enhanced financial and non-financial performance (Ma, 2024). Similarly, research on Vietnamese electronic firms found that green supply chain management directly and indirectly boosts business performance through improved operational efficiency and employee satisfaction (Nguyen et al., 2023). Green Practices in Value Chains: Incorporating environmentally friendly practices within the value chain can improve firm performance. A study on developing countries demonstrated that green value chain practices positively influence operational efficiency and market competitiveness, enhancing overall business performance (Ong et al., 2022).

PMC Digital Transformation: Adopting digital technologies within the value chain enhances supply chain capabilities and competitive performance. Research indicates that digital transformation facilitates information exchange, activity integration, collaboration, and responsiveness, which are crucial for improving supply chain performance (Zhang et al., 2023). Another study found that digital transformation significantly improves total factor productivity by optimizing supply-demand matching and reducing transaction costs (Li & Wang, 2024). Investing in the brand value chain can increase brand resonance, profitability, and market value. An analysis of Amazon's financial data from 2010 to 2021 revealed that strategic brand investments significantly enhance customer perception and financial performance (El-Said et al., 2023). Integration of IT Capabilities and Green Innovation: Combining information technology capabilities with green supply chain integration and innovation positively affects organizational performance. A study in the manufacturing sector found that IT capabilities enhance green processes and product innovation, leading to improved organizational outcomes (Chen et al., 2023). Global Value Chain Performance: Rethinking business performance in global value chains involves balancing operational efficiency, market effectiveness, and financial resilience. A theoretical framework suggests that aligning these performance systems is essential for sustainable profitability and growth, especially in adversity (Smith & Johnson, 2022). These studies collectively highlight the critical role of value chain management in enhancing SME performance. SMEs can improve their competitiveness and resilience in the global market by focusing on sustainable practices, digital transformation, brand investment, and innovation.

In addition to the value chain's impact on business performance, government support plays a critical role in shaping the operations and long-term sustainability of small and medium-sized enterprises (SMEs). Government interventions—such as financial subsidies, training programs, export assistance, and digital transformation incentives—can significantly enhance the capacity of SMEs to adapt to market challenges and expand their operations (Abbas et al., 2021). These support mechanisms are fundamental in developing economies, where SMEs often lack access to capital, infrastructure, and skilled labor (Asadullah & Gunawan, 2022). Effective policy frameworks that provide regulatory ease promote innovation and reduce bureaucratic barriers, improving SME productivity and competitiveness (Kim & Kim, 2020). Additionally, targeted government programs aimed at capacity-building and knowledge-sharing have positively influenced innovation and internationalization among SMEs (Mishra & Smyth, 2022). In post-pandemic recovery, digital support initiatives and flexible financing mechanisms have become increasingly vital in sustaining SME operations and accelerating their integration into global value chains (Marikyan et al., 2023). Therefore,

comprehensive and well-designed government support facilitates operational efficiency and fosters resilience and growth within the SME sector.

Given the pivotal role of SMEs in driving Thailand's border trade, particularly with neighboring Lao PDR, it is essential to understand the factors that influence their business performance. Among these, the efficiency of the value chain and the scope of government support emerge as critical determinants. The value chain encompasses a range of activities that can enhance SMEs' operational capabilities, innovation, and competitiveness in domestic and cross-border markets. Simultaneously, government support through policies, funding, training, and infrastructure catalyzes overcoming structural barriers that SMEs commonly face, especially in border regions. Despite the growing recognition of their importance, empirical research examining how these two factors influence SME performance in Thailand's border provinces remains limited. Therefore, this study seeks to fill that gap by analyzing the impact of value chain strategies and government support mechanisms on the business performance of SMEs engaged in border trade. The findings are expected to inform more targeted policy interventions and business strategies that can strengthen regional trade integration, promote inclusive economic development, and enhance the sustainability of SMEs operating at Thailand's economic frontiers.

Research objectives

1) to study the level of SMEs' opinions on value chain management, government support and business Performance in the northeastern border trade area of Thailand.

2) to examine the influence of government support and value chain management on business Performance in the northeastern border trade area of Thailand.

Scope of Study

Our area of interest is SMEs in the Northeastern Border Trade Area of Thailand.

2. Literature review and development of hypotheses

2.1 The Concept of Business Performances of SMEs

There are many forms of corporate performance evaluation, such as financial, effectiveness, efficiency, balanced scorecard and strategy maps, and social enterprise performance evaluation. Leenawong (2012). The background of the Balanced Scorecard (BSC) measurement is an idea that originated from Robert Kaplan, a professor at Harvard University, and David Norton, a management consultant. They studied and investigated the causes of the American stock market crash 1987 and found that most American businesses mainly used financial indicators. This type of event occurred repeatedly. In 1992, Kaplan and Norton realized that the tools used to measure the performance of business organizations, such as traditional companies, had weaknesses (e.g., looking only at the financial status of the company, which is a one-sided view of the company's success and often comes from the past. It does not show the company's potential and future trends. Therefore, both proposed the idea of organizational evaluation using the Balanced Scorecard and published it in the Harvard Business Review in 1992, proposing to consider 4 perspectives (Perspectives) instead of considering only the financial perspective. Meaning of Balanced Scorecard (BSC) Kaplan and Norton (1996) stated that the balance score is a measurement tool to measure the performance of both public and private organizations to achieve strategies by focusing on what is essential to the success of the organization. To solve the problem of using only financial indicators, Williams (2005) stated that the balance score measurement technique is a balanced measurement and evaluation that covers all financial and non-financial perspectives, consisting of 4 perspectives: financial, customer, internal process, and learning and development. Roongsong (2022) defined the Balance Scorecard as an indicator that increases the organization's growth efficiency according to the set goals in 4 areas: customers, finance, internal process, and in terms of learning and growth Decharin (2003) defined the Balanced Scorecard as a management tool that helps implement strategies (Strategic

Implementation) by using measurement or evaluation (Measurement) to help the organization be consistent and focused on things that are important to its success (Alignment and Focus). Gunawan (2024) concluded that the Balanced Scorecard (BSC) serves as a strategic management tool that assists executives in setting organizational goals, defining guidelines for achieving those goals, and systematically monitoring, evaluating, and controlling activities and strategies. While elements of the BSC had been informally used in the past, its formal structure allows for the integration and alignment of performance measurement across multiple dimensions. Ultimately, the BSC enables organizations to assess both financial and non-financial performance indicators, ensuring a balanced and holistic approach to evaluating success and efficiency.

The Balanced Scorecard (BSC) Components

1) Financial Perspective is a financial perspective that the organization must respond to the satisfaction of shareholders, such as the increase in share price, the increase in earnings per share (Earnings per Share), Return on Equity (ROE), Return on Asset (ROA), debt to equity ratio (D/E Ratio), etc.

2) Customer Perspective is a perspective on the organization's internal work processes, such as the invention of new innovations, the organization's efficient structure, the organization's internal coordination, the efficient management of the production line, etc.

3) The Internal Process Perspective is a perspective on the organization's internal work processes, such as innovation, invention, efficient organizational structure, internal coordination, and efficient production line management.

4) Learning and Growth Perspective is a perspective on learning and growth. In this perspective, the basic factor that will make an organization strong is its employees, which can be measured in various forms, such as the development of employee knowledge and skills, employee satisfaction, the development of work facilitation systems, etc.

While Panyaruang (2016) studied competitive advantage strategies affecting the success of operations according to the Balance Scorecard concept of medium-sized and small-sized food processing enterprises in Suphan Buri Province, the results of the study were that the overall success of operations according to the Balance Scorecard concept was at a moderate level. Different sizes of establishments used different marketing strategies. Marketing mix strategies were related to competitive advantage strategies, with medium-sized establishments focusing more on product and promotion strategies than small establishments. Medium-sized establishments used more niche market competitive advantage strategies. Meanwhile, competitive advantage strategies had the same effect on overall operational success. Hutem (2021) studied organizational factors related to the success of selected 5-star OTOP product entrepreneurs in Nonthaburi Province. Business success was measured by the Balance Scorecard performance assessment at a high level. The highest level was organizational learning and growth, followed by finance, customers, and internal processes. When considering organizational factors related to business success, each pair was at a very high level. There is a significant relationship between all pairs, with the highest being the technology factor, followed by the organizational structure, people, and workload factors, with statistical significance at the .05 level.

Various scholars have highlighted the BSC as a strategic management tool that promotes alignment, focus, and consistency in organizational goals. Research shows that its application, such as in medium-sized enterprises and OTOP product entrepreneurs, correlates with varying levels of success, depending on organizational strategies and contextual factors like technology and workforce structure. Overall, the BSC offers a balanced and integrated framework that enhances an organization's ability to implement strategies effectively and sustain long-term success.

2.2 The Concept of Value Chain Management in SMEs

Value chain definition of Porter (2008) comes from an organizational management perspective. Value chain managers look for ways to improve their business and provide more value to customers than is strictly necessary. They may develop products, develop plans to prevent shortages and work with other stakeholders.

Kaplinsky and Morris (2002) describe the value chain as all the activities required to take a product or service from its inception through the various stages of production (which involves physical processing and the incorporation of producer services), delivery to the final consumer, and final disposal. Meanwhile Dubey et al. (2020) mentioned the value chain includes the activities that take place within a company to deliver a product or service of value to its market. Each step in the value chain adds more value. The value chain is a tool that helps visualize a company's output by identifying the thousands of separate activities involved. The value chain refers to the business's work activities that add value to customers. A business must use the activities in the value chain to create and capture that value. The value created by the value chain should be greater than the sum added by the individual activities. Value chain analysis aims to increase productivity so that a company can deliver maximum value at a minimum cost. The supply chain is the network between a company and its suppliers to produce and distribute a specific product to the final buyer value chain components.

Value chain components

Porter (2008) explained that in a supply chain, the value chain includes inbound and outbound logistics, marketing, sales, core operations, and service activities. Support activities include technology development, human resources, procurement, management, and infrastructure construction. The value chain concept shows how companies add value to their raw materials to produce goods or offer services that meet customer needs and preferences which have components:

The primary activities are:

1. Inbound Logistics - involves relationships with suppliers and includes all the activities required to receive, store, and disseminate input.

2. Operations - all the activities required to transform input into outputs (products and services).

3. Outbound Logistics - include all the activities required to collect, store, and distribute the output.

4. Marketing and Sales - activities inform buyers about products and services, induce buyers to purchase them, and facilitate their purchase.

5. Service - includes all the activities required to keep the product or service working effectively for the buyer after it is sold and delivered.

Secondary activities are:

1. Procurement - is the acquisition of inputs, or resources, for the firm.

2. Human Resource management - consists of all activities involved in recruiting, hiring, training, developing, compensating, and (if necessary) dismissing or laying off personnel.

3. Technological Development pertains to the equipment, hardware, software, procedures, and technical knowledge used in the firm's transformation of inputs into outputs.

4. Infrastructure serves the company's needs and ties its various parts together. It consists of functions or departments such as accounting, legal, finance, planning, public affairs, government relations, quality assurance, and general management.

As shown in the picture

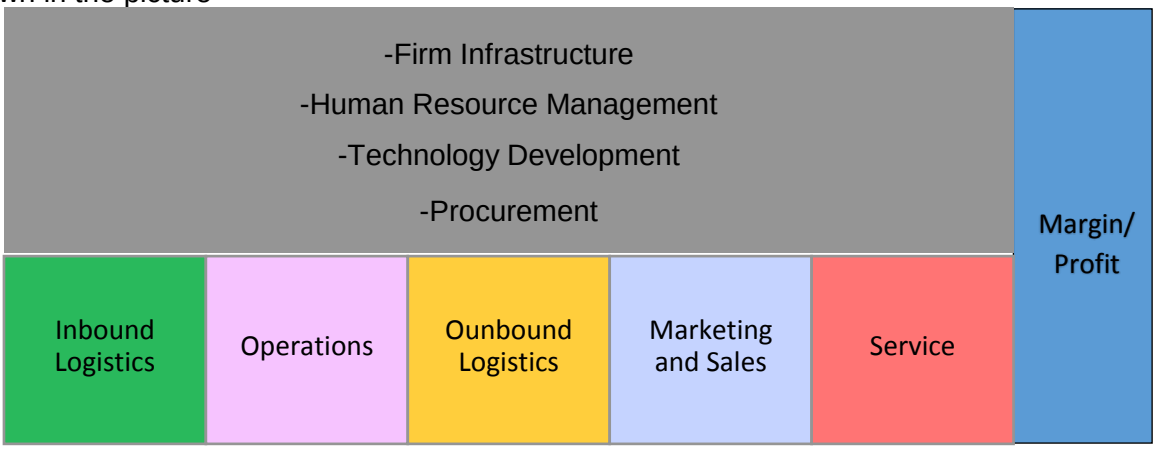

Figure 1: Value Chain

In recent years, the value chain has become a central focus in understanding business performance, particularly in the context of global disruptions and technological advancements. Scholars have explored this relationship through various lenses, including strategic management, digital transformation, brand development, and performance evaluation frameworks. Mouzas and Bauer (2022) revisited business performance within global value chains, proposing an integrated framework that emphasizes operational efficiency, market effectiveness, and financial resilience. Their findings highlight the increasing necessity for organizations to adapt to external disruptions, such as the COVID-19 pandemic, by leveraging the interconnectedness of their value chain operations. Similarly, Pejić Bach et al. (2023) examined the maturity of supply chain management using the Balanced Scorecard perspective. Their research found a significant positive relationship between the maturity of supply chain practices and improved business performance across financial and non-financial metrics, reinforcing the notion that effective value chain governance contributes directly to strategic success. Brand value also plays a critical role in the modern value chain. Mousa and El-Said (2023) explored the case of Amazon to illustrate how investments in the brand value chain can enhance brand resonance, profitability, and market value. Their study underscores the importance of intangible assets in the performance equation, positioning branding as a core component of value creation. From a technological standpoint, Kohnová and Salajová (2023) analyzed the effects of Industry 4.0 on company operations through the lens of the value chain model. They argue that digital transformation enables firms to streamline internal processes, improve customer experience, and drive innovation, all of which are key drivers of enhanced performance. Finally, Al-Shammari (2023) introduced a knowledge-based production value chain model aimed at achieving sustainable competitive advantage. The model integrates knowledge management and business process re-engineering, suggesting that the ability to generate, transfer, and apply knowledge across the value chain is vital for long-term success. Collectively, these studies demonstrate that a well-structured and strategically aligned value chain has a significant impact on business performance. Whether through operational efficiency, brand equity, or digital integration, value chain optimization emerges as a fundamental approach for organizations seeking competitive advantage and sustained growth.

2.3 The Concept of Government Supporting SMEs

Small and medium-sized enterprises (SMEs) are pivotal to global economic development, contributing significantly to employment and innovation. Recognizing their importance, governments worldwide have implemented various support mechanisms to enhance SME performance, especially in response to recent economic challenges.

Government support programs (GSPs) have been instrumental in bolstering SME performance. A systematic review by Kumar (2023) highlighted that GSPs positively influence SMEs' sales, profits, employment, productivity, innovation, and exports. However, the effectiveness of these programs varies based on design, implementation, and contextual

factors. Entrepreneurial orientation (EO) plays a mediating role in the relationship between GSPs and SME performance. Studies indicate that GSPs enhance EO, which in turn leads to improved firm performance. For instance, Roxas and Chadee (2013) found that formal institutions, including laws and policies, significantly influence performance via EO. Similarly, Firman et al. (2018) confirmed that GSPs impact firm performance and strategic renewal through EO. The COVID-19 pandemic underscored the critical role of government interventions in SME survival. A systematic literature review by the Future Business Journal (2024) identified effective interventions, including market access support, regulatory flexibility, wage subsidies, supply chain support, and digitization aid. Collaborative efforts between governments and financial institutions were also pivotal in expediting SME recovery

The integration of financial technology (Fintech) into government support mechanisms has emerged as a transformative strategy. A study by ScienceDirect (2024) revealed that combining government initiatives with Fintech solutions enhances SMEs' access to finance, survival rates, and overall performance. This synergy addresses traditional financial support challenges and fosters sustainable economic development. Despite numerous support schemes, challenges persist in policy implementation. In Thailand, the Thailand Development Research Institute (TDRI) assessed two key SME promotion measures in 2023 and found that while programs like "Shop Dee Mee Khuen" stimulated consumer spending, issues like complex processes and lack of awareness hindered effectiveness. The TDRI recommends simplifying procedures and enhancing communication to improve policy outcomes.

Government support plays a crucial role in enhancing SME performance. While various programs have demonstrated effectiveness, their success often depends on factors like entrepreneurial orientation, integration with Fintech, and efficient implementation. Addressing challenges in policy design and execution is essential to maximize the benefits of government support for SMEs.

Government support plays a pivotal role in the development and sustainability of small and medium-sized enterprises (SMEs). This literature review examines recent research (2022–2024) on four key areas of government support: financial and investment assistance, professional development and training, export facilitation, and the creation of a supportive business environment.

1) Financial and Investment Support

Financial assistance from governments, including grants, loans, and guarantees, has been shown to significantly enhance SMEs' financial performance. For instance, Anwar and Li (2021) found that government-backed loan guarantees improved SMEs' access to finance, leading to better performance outcomes. Similarly, Supari and Anton (2022) reported that subsidies and financial support programs positively impacted SMEs' growth and sustainability. However, some studies, such as Bomani et al. (2022), question the long-term efficacy of these financial interventions, suggesting that without proper implementation and monitoring, the benefits may not be sustained.

2) Professional Development and Training

Governments have initiated various programs to enhance the skills and competencies of SME owners and employees. The UK's "Help to Grow" scheme, launched in 2021, offers a 12-week management training program aimed at improving business productivity. As of September 2024, over 10,000 small business leaders have enrolled, with 7,860 completing the program. Participants have reported positive outcomes, including revenue growth and improved management practices (The Times, 2024).

3) Government Support for Exports

Export facilities are another critical area where government support has made a difference. UK Export Finance (UKEF), the government's trade finance arm, has committed to increasing its support for SMEs fivefold by 2029. This includes providing insurance and loan guarantees for exports, particularly focusing on women-owned businesses. Such initiatives aim to mitigate the risks associated with international trade and encourage SMEs to explore global markets (The Times, 2024).

4) Fostering a Supportive Business Environment

Creating a conducive business environment involves policy reforms, infrastructure development, and institutional support. A study by Dogbe et al. (2022) emphasizes the importance of government policies in enhancing SMEs' strategic performance, particularly in export activities. The research highlights that institutional support, including streamlined regulations and access to resources, significantly influences SMEs' ability to compete in international markets.

Recent research underscores the multifaceted nature of government support for SMEs. Financial assistance, skill development programs, export facilitation, and supportive policies collectively contribute to the growth and sustainability of SMEs. However, the effectiveness of these interventions depends on proper implementation, continuous monitoring, and adaptability to the evolving needs of SMEs.

Hypotheses:

For many of the studies above about value chain management, government support, and business performance in many contexts, the authors can propose the hypotheses and research framework via literature review, as below.

H_1: There is a significant influence value chain management on business performance of SMEs in in the northeastern border trade area of Thailand.

H_2: There is a significant influence government support on business performance of SMEs in in the northeastern border trade area of Thailand.

Conceptual Framework

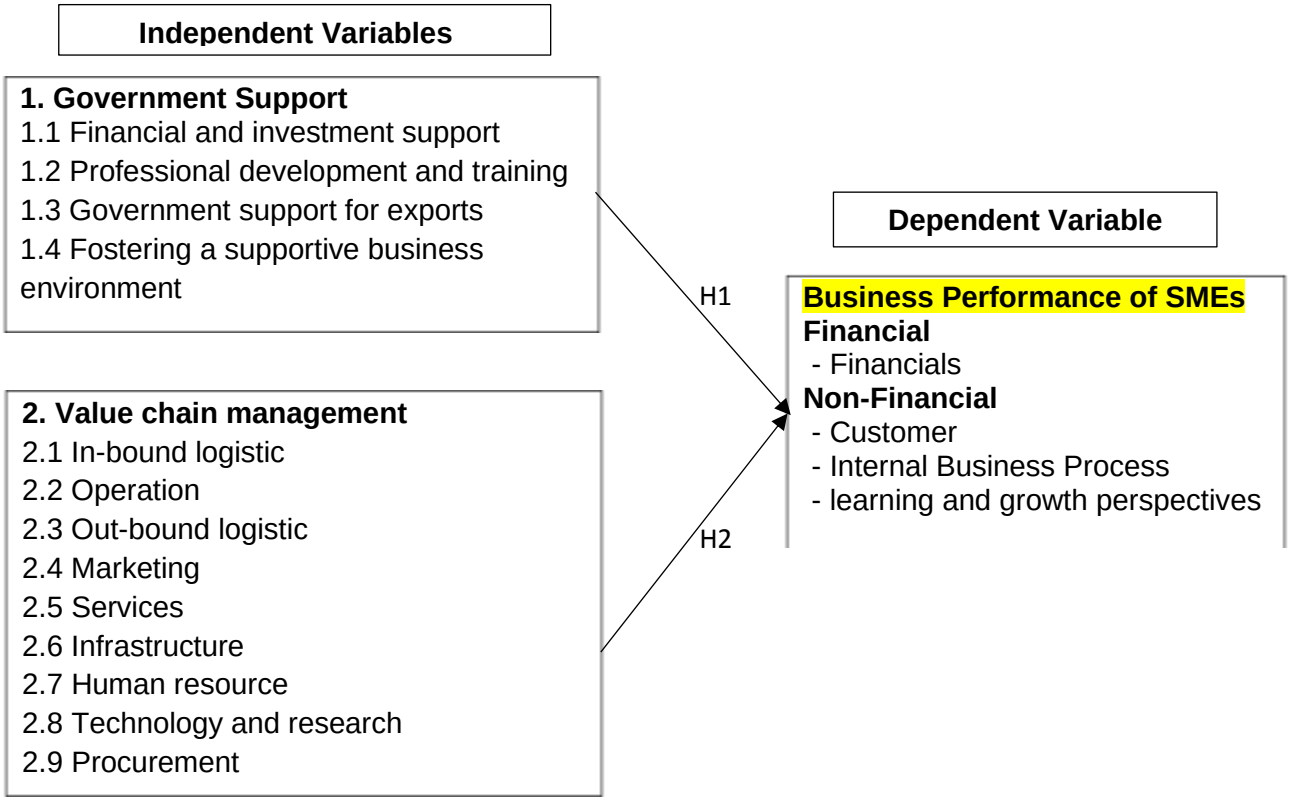

Figure 2: A Conceptual Research Framework

3. Research Methodology

This study employed a quantitative research design using a 5-point Likert scale questionnaire (ranging from "strongly disagree" to "strongly agree") as the primary data collection tool. The target population comprised 151,899 SMEs located in the Northeastern provinces of Thailand that share borders with Cambodia and the Lao PDR. Based on the sampling formula by Kanchanawasri (2008) and applying a 95% confidence level with a 10% tolerance of the standard deviation, the required sample size was determined to be 272. To account for potential incomplete responses, an additional 35 questionnaires were distributed, bringing the total to 307. Cluster sampling was used to divide the Northeastern region into upper and lower subregions. Mukdahan and Ubon Ratchathani were selected to represent each subregion, respectively. Notably, the key Thai provinces bordering the Lao PDR include Ubon Ratchathani, Mukdahan, Nakhon Phanom, Nong Khai, Bueng Kan, and Loei. In terms of trade activity, Mukdahan accounted for 45% of Thailand's total border trade with the Lao PDR in 2024 (see Table 2). Additionally, among these six provinces, Ubon Ratchathani—located in the lower Northeastern region—had the largest number of SMEs, representing 42.9% of the total (see Table 3). This highlights Ubon Ratchathani's significant role in driving SME development in the border region.

Table 2: Border trade value with Lao PDR by customs checkpoint in 2024. (unit: million baht)

Checkpoint	Region	Export	Import	Total	Percent (%)
Mukdahan	Upper Northeastern	140,106	221,940	362,046	45%
Nakhon Phanom	Upper Northeastern	82,349	42,394	124,743	16%
Nong Khai	Upper Northeastern	90,583	30,894	121,477	15%
Chiang Khong	North	55,079	20,648	75,727	9%
Others		50,914	66,063	116,977	15%

Table 3: Number of SMEs in Northeastern provinces with border area with Lao PDR

Provinces	Number of SMEs	Percent	Subdivisions in Lao PDR
Loei	17,459	11%	Vientiane
Nakhon Phanom	24,991	16%	Khammouane
Bueng Kan	11,951	8%	Bolikhamsai
Mukdahan	15,274	10%	Savannakhet
Nong Khai	17,013	11%	Vientiane
Ubon Ratchathani	65,211	43%	Champasak
Total	151,899	100%	

Source: Office of SMEs Promotion (2025)

The researcher distributed questionnaires to a total of 307 participants in Ubon Ratchathani and Mukdahan provinces, as shown in Table 4. Data collection was conducted between March and May 2024.

Table 4: Sample size of SMEs categorized by province

Provinces	Sample Sizes
1. Ubon Ratchathani	151
2. Mukdahan	156
Total	307

Validity and Reliability Tests

To ensure the validity of the questionnaire, three experts in marketing, business administration, and research methodology reviewed the structure and content of each variable. The Index of Item-Objective Congruence (IOC) for each item ranged from 0.67 to 1.00, exceeding the acceptable threshold of 0.50. A pilot study was conducted with 30 SMEs, and the results are presented in Table 5. Overall Cronbach's alpha coefficient was 0.94, indicating a very high level of internal consistency. According to Gliem and Gliem (2003), Cronbach's alpha value above 0.90 reflects excellent reliability. Therefore, the questionnaire is considered highly reliable, and the sets of questions related to government support, value chain management, and business performance of SMEs are deemed appropriate for use in the main study.

Table 5: Cronbach's Alpha Coefficient Results

Variables	Cronbach's Alpha
Government support (14 items)	0.98
Value chain management (33 items)	0.94
Business performance of SMEs (16 items)	0.81
Total (63 items)	0.95

The data were analyzed using descriptive statistics, including percentage, frequency, and mean, along with multiple regression analysis. Dummy variables were used to represent categorical group variables. The study employed the enter method to include all independent variables simultaneously in the regression model to identify the best predictors of SME business performance. For interpreting the mean scores in a large sample, the criteria established by Ingard et al. (2020, p. 101) were applied as follows: a mean of 4.21–5.00 indicates the highest importance; 3.41–4.20 signifies high priority; 2.61–3.40 reflects moderate importance; 1.81–2.60 suggests low importance; and 1.00–1.80 represents the least importance.

5. Research Results

Sample Characteristics and Descriptive Statistics

Table 6 presents the demographic characteristics of the 307 SMEs surveyed. The sample was female 155 (50.5 %), with most respondents aged 41–50 (35.5%). A majority held a bachelor's degree 51.1%, and about 51.1% obtained a bachelor's degree. The distribution of marital status was married. Most participants (70%) were the owner business.

Table 6: Demographic Profile of Respondents (N = 307)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	152	49.5%
	Female	155	50.5%
Age Group	Under 20	5	1.6%
	21–30 years	30	9.8%
	31–40 years	68	22.1%
	41-50 years	109	35.5%
	51 years and above	95	30.9%
Education Level	Under diploma	38	12.4%
	diploma	88	28.7%
	Bachelor's degree	157	51.1%

Variable	Category	Frequency (n)	Percentage (%)
	Postgraduate	24	7.8%
Marital Status	Single	96	31.3%
	Marital	189	61.6%
	Divorce/separate	22	7.1%
Relationship with the business	Owner	184	70.0%
	Senior management	46	15.0%

Objective 1: 1) to study the level of SMEs' opinions on value chain management, government support and business Performance in the northeastern border trade area of Thailand.

Table 7: Level of opinion on government support of SME Entrepreneurs

Government Support	$\bar{x}$	S.D.	Level
Financial and investment support	2.35	1.24	Low
Professional development and training	2.16	1.26	Low
Government support for exports	2.00	1.25	Low
Fostering a supportive business environment	2.61	1.16	Moderate
Total	**2.27**	**1.09**	**Low**

From Table 7, it was found that businesses in the Northeastern border trade area had low opinions on overall government support ($\bar{x}$ = 2.27, S.D. = 1.09). When considering each aspect, they were at low levels in almost every aspect. Except for creating a supportive business environment at a moderate level ($\bar{x}$ = 2.61, S.D. = 1.16). Next, financial and investment support ($\bar{x}$ = 2.35, S.D. = 1.24), Professional development and training ($\bar{x}$ = 2.16, S.D. = 1.25). And finally, the lowest mean value was government support for exports ($\bar{x}$ = 2.00, S.D. = 1.25), respectively.

Table 8: Level of opinions on value chain management of SME entrepreneurs.

Value Chain	Mean	S.D.	Level
In-bound logistics	4.07	0.85	High
Operation	4.14	0.88	High
Out-bound logistics	4.12	0.80	High
Services	4.28	0.73	High
Marketing	4.04	0.76	High
Infrastructure	4.03	0.89	High
Human resources	3.94	0.97	High
Technology and research	3.40	1.21	Moderate
Procurement	4.18	0.82	High
Total	**4.02**	**0.75**	High

Table 8 shows that SMEs in the Northeast Border Trade Zone Had a high level of feedback on overall value chain management ($\bar{x}$ = 4.02, S.D. = 0.75). When considering the main activities by side, it was found that they were at a high level in all aspects, with the average values in descending order as follows: service ($\bar{x}$ = 4.28, S.D. = 0.73), operation

($\bar{x}$ = 4.14, S.D. = 0.88), outbound logistics ($\bar{x}$ = 4.12, S.D. = 0.80), inbound logistics ($\bar{x}$ = 4.07, S.D. = 0.85), and finally marketing and sales ($\bar{x}$ = 4.04, S.D. = 0.76). When considering the support activities on a case-by-case basis, it was found that they were at a high level. The average values can be sorted in descending order as follows: Procurement ($\bar{x}$ = 4.18, S.D. = 0.82), Infrastructure ($\bar{x}$ = 4.03, S.D. = 0.89), Human Resource Management ($\bar{x}$ = 3.94, S.D. = 0.97). Finally, the smallest means is in technological development ($\bar{x}$ = 3.40, S.D. = 1.21), respectively.

Table 9: Level of opinions on business performance of SME entrepreneurs.

Business Performance	$\bar{x}$	S.D.	Level
Financial	3.50	0.83	Moderate
Customer	4.22	0.72	High
Internal process	4.03	0.75	High
Learning and growth perspectives	3.44	1.11	Moderate
Total	**3.80**	**0.69**	**High**

From Table 9, it was found that business performance in the Northeastern Border Trade Zone had opinions about the overall business performance at a high level (= 3.80, S.D. = 0.69). When considering each aspect, it was found that they had high opinions about customers (= 4.22, SD = 0.72) and internal processes (= 4.03, SD = 0.75). And the moderate opinions were in the financial aspect (= 3.50, SD = 0.83) and Learning and growth perspectives (= 3.44, SD = 1.11), respectively.

Objective 2: to examine the influence of government support and value chain management on business Performance in the northeastern border trade area of Thailand.

We conducted a multiple linear regression analysis, and the results are shown in Table 10, revealing the independent variables are related to business performance at a very high level (R = 0.877). The model adjusted R-squared equals to 0.76, meaning that the independent variables can explain 76.0% of the variance of change in business performance. In contrast, the other 24% is influenced by other variables not included in the model.

Table 10: The Results of multiple linear regression analysis of the predictor variables

Model	R	R Square	Adjusted R Square
1	.877[a]	0.77	0.76

Table 11: Results of analysis of variances, the predictor variables and the business performance of SMEs in the northeastern border trade area of Thailand.

Source of Variances	Sum of Squares	d.f.	Mean Square	F	Sig.
Regression	113.492	13	8.73	75.389	.000b
Residual	33.93	293	0.116		
Total	147.421	306			

From table 11,Results of analysis of variances show that F = 75.389, sig = 0.00 < 0.01 means independent variable at least one effect the business performance of SMEs statistically significant at 0.01 level.

Table 12: Results of the Multiple Linear Regression Analysis of the Business Performance

Variables	Unstandard. Coefficients		Standard Coefficients	t	Sig.	Collinearity Statistics	
	B	S. E.	Beta			Toler.	VIF
(Constant)	**0.458**	**0.136**		**3.371**	**0.001**		
- Inbound	**0.167**	**0.045**	**0.202**	**3.68**	**0.000**	**0.26**	**3.841**
- Operation	0.043	0.049	0.051	0.883	0.378	0.234	4.276
- Outbound	-0.007	0.044	-0.008	-0.158	0.874	0.31	3.23
- Service	0.031	0.041	0.032	0.757	0.450	0.427	2.344
- Marketing	**0.363**	**0.047**	**0.398**	**7.656**	**0.000**	**0.29**	**3.448**
- Infrastructure	-0.026	0.044	-0.033	-0.592	0.554	0.249	4.018
- Human Resource	**0.169**	**0.04**	**0.235**	**4.181**	**0.000**	**0.249**	**4.009**
- Technology	0.013	0.028	0.023	0.475	0.635	0.339	2.95
- Procurement	0.045	0.042	0.053	1.088	0.277	0.33	3.032
- Financial and investment	-.036	0.028	-0.064	-1.278	0.202	0.31	3.221
- Professional development and training	.030	0.031	0.054	0.97	0.333	0.251	3.978
- Government support for exports	**0.069**	**0.032**	**0.124**	**2.156**	**0.032**	**0.238**	**4.2**
- Fostering a supportive business environment	-0.003	0.027	-0.006	-0.126	0.90	0.403	2.481

From Table 12, the results found that seven independent variables (out of 8) had a statistically significant effect on the business performance of SMEs in the northeastern border trade area of Thailand. All variables had the tolerance and the VIF values were pass the criteria, i.e., Tolerance > 0 and VIF < 5.53 (Pheunpha, 2023), so there was no problem with a very high level of correlation between independent variables. All predictors were suitable for analysis in the multiple regression model in descending order of influence size as follows:

- Marketing of value chain influences the business performance of SMEs statistically significantly at 0.01 level. Beta regression coefficient = 0.398; that is, if SMEs were an increase in marketing by 1 unit, it resulted in the business performance of SMEs increasing by 0.398 standard units, with the other independent variables being constant.

- Human resource of value chain influences the business performance of SMEs statistically significant at 0.01 level. Beta regression coefficient = 0.235; that is, if SMEs were an increase in human resource taking by 1 unit, it resulted in the business performance of SMEs increasing by 0.235 standard units, with the other independent variables being constant.

- Inbound of value chain influences the business performance of SMEs, which is statistically significant at the 0.01 level. Beta regression coefficient = 0.202; that is, if SMEs were an increase in Inbound by 1 unit, it resulted in the business performance of SMEs increasing by 0.202 standard units, with the other independent variables being constant.

- Government support for exports influences the business performance of SMEs, which is statistically significant at the 0.01 level. Beta regression coefficient = 0.124; that is, if SMEs were an increase in government support for exports by 1 unit, it resulted in the business performance of SMEs increasing by 0.124 standard units, with the other independent variables being constant.

Meanwhile, other independent variables did not influence the business performance of SMEs in the northeastern border trade area of Thailand.

The equation to predict the business performance of SMEs in the standard score terms.

The business performance in the northeastern border trade area = 0.398** (Marketing) + 0.235**(Human resource) + 0.202**(Inbound) + 0.124**(Government support for exports)

6. Discussion

The findings from the study provide a comprehensive overview of the current state of government support, value chain management, and business performance among SMEs in the Northeastern Border Trade Zone, Thailand. The analysis indicates that overall perceptions of government support were low. Most support dimensions, including financial and investment support, professional development and training, and export support, received low ratings. Only creating a supportive business environment was rated at a moderate level. In contrast, SMEs expressed high satisfaction with overall value chain management. All primary and support activities were evaluated at high levels, with the most favorable ratings given to service and procurement. Technological development was the only aspect rated at a relatively low but still moderate level. Lastly, the overall business performance of SMEs in the region was rated highly. Businesses reported particularly strong performance in customer relations and internal processes. Financial performance learning and growth were perceived at a moderate level. In summary, while SMEs in the Northeastern Border Trade Zone, Thailand, exhibit strong internal operations and value chain effectiveness, there is a clear need for enhanced and more effective government support, especially in areas critical to business development and international trade.

The empirical results of the regression study reveal that multiple components of the value chain significantly influence the business performance of SMEs in the Northeastern Border Trade Zone of Thailand. These findings align strongly with classical and contemporary literature on value chain analysis and government support mechanisms.

Value Chain Components and Business Performance, as conceptualized initially by Porter and Normann (1985), the value chain framework dissects a business into primary and support activities that add value to products and services. The present findings demonstrate that several primary activities—marketing, inbound logistics, and human resources—significantly enhance business performance among SMEs. The most influential factor was marketing ($\beta = 0.398$), confirming that effective promotion and sales strategies are critical to SME competitiveness. This supports the observations of Mousa and El-Said (2023), who emphasized that investments in the marketing and branding aspects of the value chain can significantly enhance brand resonance and profitability. In the age of digital commerce, marketing is not just about visibility but also about strategic engagement and differentiation, particularly for small businesses in competitive or resource-constrained environments.

Human resource management ($\beta = 0.235$) also had a notable impact. This reinforces the argument made by Porter and Normann and supported by Pejić Bach et al. (2023), who showed that investment in human capital through training and development significantly contributes to both financial and non-financial performance. The findings align with government-backed initiatives like the UK's "Help to Grow" scheme, which shows that structured training programs can lead to tangible improvements in business outcomes (The Times, 2024).

Inbound logistics (β = 0.202) was another key contributor, reflecting the importance of efficient resource acquisition and management in SME performance. This aligns with the integrated framework proposed by Mouzas and Bauer (2022), which stressed the role of operational efficiency and supply chain resilience, especially during global disruptions like COVID-19. Interestingly, government support for exports (β = 0.124) was the only external support variable found to have a statistically significant, though more negligible, effect. This echoes the findings of studies such as those by Kumar (2023) and The Times (2024) of UK Export Finance, which emphasize that export facilitation—especially in emerging markets—can play a catalytic role in helping SMEs access new markets and scale operations. However, the relatively lower impact might suggest issues with the implementation or accessibility of such programs in Thailand, as noted by the Thailand Development Research Institute (TDRI, 2023).

Government Support: A Critical Yet Underleveraged Resource, although export support had some effect, other government interventions—such as financial support, training, and business environment creation—were not found to influence SME performance in this context significantly. This contrasts with the broader literature, which generally supports the positive relationship between government support programs and SME growth (Anwar & Li, 2021; Supari & Anton, 2022). Local challenges in policy design and execution may explain the discrepancy. TDRI (2023) highlighted that complex administrative processes and low awareness among SME owners often hinder program effectiveness. Moreover, Roxas and Chadee (2013) and Firman et al. (2018) noted that the impact of government support is often mediated by entrepreneurial orientation—a factor not directly measured in the present study.

Furthermore, integrating Fintech into GSPs—as shown by ScienceDirect (2024)—has been recognized as a game-changer in improving access and effectiveness. However, if such digital transformations are not fully implemented or adopted in the Northeastern region, the benefits of these programs might remain limited. This discussion affirms that internal value chain optimization and external support systems are pivotal for SME growth. While the former demonstrates a clear and direct impact, the latter requires more targeted policy refinement and implementation to realize its full potential in Thailand's Northeastern Border Trade Zone.

7. Theoretical and Practical Implications

This study reinforces the theoretical framework that a well-aligned value chain enhances SME performance, particularly when optimizing internal activities like marketing, logistics, and HR. It also emphasizes that while government support is critical, its impact depends on how well these initiatives are designed, communicated, and executed at the grassroots level. For policymakers, the results point to the need to:

Simplify and digitalize access to support programs.

Enhance awareness and outreach efforts to SMEs.

Integrate entrepreneurial training into support initiatives to improve their mediating effects.

SME owners should focus on strengthening internal operations—mainly marketing and HR—as these have the most immediate and tangible effects on performance.

8. Suggestions for future research

Based on the findings and discussion of this study, several avenues for future research are recommended to deepen the understanding of factors influencing SME performance, especially within the context of the Northeastern Border Trade Zone of Thailand:

1) Explore the Role of Entrepreneurial Orientation (EO): Given that EO mediates the relationship between government support and SME performance (Roxas & Chadee, 2013; Firman et al., 2018), future studies should incorporate EO as a mediating or moderating variable. This could help explain why specific government programs yield limited effects despite their potential.

2) Examine Implementation Gaps in Government Support Programs: Future research should adopt a qualitative or mixed-methods approach to investigate barriers SMEs face in accessing or benefiting from government initiatives. This could include analyzing issues

related to policy awareness, administrative complexity, digital literacy, or regional disparities in resource allocation.

3) Assess the Impact of Fintech Integration: As highlighted by ScienceDirect (2024), Fintech integration into government support mechanisms can significantly enhance access and performance. Future studies could evaluate the current state and effectiveness of digital tools and platforms for government support in Thailand's border trade zones.

Investigate Longitudinal Impacts of Value Chain Optimization: A longitudinal study would help track how value chain improvements influence SME performance over time. This could also account for external shocks such as pandemics or economic downturns, providing more robust insights into strategic resilience.

Comparative Studies Across Regions or Sectors: Conducting comparative analyses between different border trade areas or industrial sectors could reveal contextual factors that amplify or reduce the influence of value chain components and government support on SME performance.

By addressing these suggestions, future research can provide a more holistic and actionable understanding of how SMEs can leverage internal capabilities and external support to drive sustainable performance and competitiveness.

References

Abbas, J., Zhang, Q., Naseem, U., Akhtar, P., & Jabarullah, N. H. (2021). Sustainable innovation in small and medium enterprises (SMEs): The role of policy, institution, and government support. *Sustainability, 13*(2), 720. https://doi.org/10.3390/su13020720

Al-Shammari, M. M. (2023). Production value chain model for sustainable competitive advantage. *Management Systems in Production Engineering, 31*(1), 27–32. https://doi.org/10.2478/mspe-2023-0004

Anwar, M., & Li, S. (2021). Government support for SMEs in the Fintech era: Enhancing access to finance. *Journal of Small Business Management, 59*(3), 456–472.

Asadullah, M., & Gunawan, T. H. (2022). Government support, financial literacy, and the sustainability of micro and small enterprises in Indonesia. *Journal of Asian Finance, Economics and Business, 9*(2), 139–148. https://doi.org/10.13106/jafeb.2022.vol9.no2.0139

Bomani, M., Kahiya, E. T., & Mpofu, F. Y. (2022). Evaluating the efficacy of government financial interventions for SMEs. *International Journal of Business and Economic Development, 10*(2), 89–105.

Chen, Y., Liu, Z., & Wang, H. (2023). Optimizing organizational performance in manufacturing: The role of IT capability, green supply chain integration, and green innovation. *Journal of Cleaner Production, 423*, 138848. https://doi.org/10.1016/j.jclepro.2023.138848

Dubey, S. K., Gills, R., Singh, A., Sah, U., & Roy Burman, R. (2022). Agricultural value chains: A cardinal pillar for future development and management of farming. In A. Kumar, R. Roy Burman, & U. S. Gautam (Eds.), *Agriculture, livestock production and aquaculture*, 243–267. Springer Nature. https://doi.org/10.1007/978-3-030-93262-6_13

Decharin, S. (2003). *Implementing Balanced Scorecard*. Chulalongkorn University Publishing.

Department of Foreign Trade. (2025). *Monthly border trade statistics: February 2025*. Ministry of Commerce, Thailand.

Dogbe, C., Domfeh, K. A., Asare, M. K., & Danquah, J. B. (2022). Exploring the relationship between government institutional support and export strategic performance. *Journal of International Business Studies, 53*(4), 678–695.

El-Said, O., Ahmed, M., & Hassan, A. (2023). The effect of investment in the brand value chain on profitability and market value of the firm: Lesson of success taken from Amazon. *Future Business Journal, 9*(1), 19. https://doi.org/10.1186/s43093-023-00196-2

Firman, F., Hermawan, A., & Yuliani, D. (2018). Government support programs and firm performance: The mediating role of entrepreneurial orientation. *Journal of Entrepreneurship in Emerging Economies, 10*(3), 386–407.

Firman, F., Hermawan, A., & Yuliani, D. (2018). Government support, entrepreneurial orientation, and strategic renewal in SMEs. *International Journal of Entrepreneurship, 22*(1), 1–10.

Future Business Journal. (2024). Mitigating the impact of COVID-19 on SMEs through government policy intervention: A systematic literature review and bibliometric analysis. *Future Business Journal, 10*(50). https://link.springer.com/article/10.1186/s43093-024-00346-0

Gunawan, R. (2024). Implementation of Balanced Scorecard to achieve the company's strategic objectives. Eduvest - *Journal of Universal Studies*, 4(3), 818–826. https://doi.org/10.59188/eduvest.v4i3.1064

Harvie, C., Narjoko, D., & Oum, S. (2015). *Small and medium-sized enterprises in developing Asia: New approaches to overcoming constraints*. ADB Institute.

Hutem, S. (2021). Organizational factors related to the business success of OTOP entrepreneurs that have been ranked as a 5-star in Nonthaburi Province. *Journal of Accountancy and Management*, 13(1), 112–124.

Kanchanawasi, S. (2008). *Traditional theory testing. (6thed.).* Bangkok : Chulalongkorn University Press.

Kaplan, R. S., & Norton, D. P. (1996). Using the balanced scorecard as a strategic management system.

Kaplinsky, R and Morris, M. (2002), A Handbook for value chain Research. Brighton: Institute of development studies, University of Sussex.

Kim, K., & Kim, Y. (2020). Government support and small- and medium-sized enterprise (SME) performance: The moderating effects of strategic orientation. *Asia Pacific Journal of Innovation and Entrepreneurship, 14*(2), 192–205. https://doi.org/10.1108/APJIE-11-2019-0084

Kohnová, L., & Salajová, N. (2023). Impact of Industry 4.0 on companies: Value chain model analysis. *Administrative Sciences, 13*(2), 35. https://doi.org/10.3390/admsci13020035

Kumar, R. (2023). An analysis of government support programs for small business development and growth. *Scholedge International Journal of Business Policy & Governance*. https://www.thescholedge.org/index.php/sijbpg/article/view/871

Leenawong, M. (2012). Perspectives on performance evaluation. *Srinakharinwirot Business Journal, 1*(3), 1–12.

Li, X., & Wang, Y. (2024). The impact of digital transformation on corporate supply chain management: Evidence from listed companies. *Finance Research Letters, 60*, 104890. https://doi.org/10.1016/j.frl.2023.104890

Liu, M. (2019). Innovation and export performance of small and medium-sized enterprises in emerging markets. *Journal of Small Business Management, 57*(2), 531–547. https://doi.org/10.1111/jsbm.12415

Ma, Y. (2024). The impact of sustainable supply chain management practices on business performance: A case study of Huawei. *SHS Web of Conferences, 181*, 03015. https://doi.org/10.1051/shsconf/202418103015

Marikyan, D., Papagiannidis, S., & Alamanos, E. (2023). Government digital support and SME resilience: Evidence from the COVID-19 pandemic. *Government Information Quarterly, 40*(1), 101728. https://doi.org/10.1016/j.giq.2022.101728

Ministry of Commerce. (2023). *SME Go Inter: Enhancing cross-border trade potential*. Department of International Trade Promotion.

Mishra, R., & Smyth, R. (2022). The role of government in enhancing SME competitiveness through knowledge and innovation: Evidence from Southeast Asia. *Journal of Small Business Management*. https://doi.org/10.1080/00472778.2022.2041935

Mousa, G. A., & El-Said, O. A. (2023). The effect of investment in the brand value chain on

profitability and market value of the firm: Lesson of success taken from Amazon. *Future Business Journal, 9*(1), 19. https://doi.org/10.1186/s43093-023-00196-2

Mouzas, S., & Bauer, F. (2022). Rethinking business performance in global value chains. Journal of Business Research, 144, 679–689. https://doi.org/10.1016/j.jbusres.2022.02.012

Nguyen, X. H., Nguyen, L. T., Pham, M. A., Nguyen, T. L., & Dam, Q. V. (2023). Influence of green supply chain management on business performance of Vietnamese electronic firms. *International Journal of Research and Review, 10*(2), 753–771.

Office of SMEs Promotion. (2023). *Thailand SME white paper 2023*. Ministry of Industry.

Office of Small and Medium Enterprises Promotion. (2025). *Thailand's MSME White Paper 2025.* https://en.sme.go.th/en/page.php?modulekey=437

Ong, J. W., Goh, G. G. G., & Yong, S. H. S. (2022). The impact of green practices in value chain on firm performance in the context of a developing country. *F1000Research, 11*, 264. https://doi.org/10.12688/f1000research.73589.2

Panyaruang, K. (2016). Strategies competitive advantage that affects the success of the operation based on the Balance Scorecard concept in small and medium enterprises food processing in Suphanburi Province [Master's thesis, Silpakorn University]. Silpakorn University Institutional Repository. https://sure.su.ac.th/xmlui/handle/123456789/20446

Pejić Bach, M., Klinčar, A., Aleksić, A., Rašić Jelavić, S., & Zeqiri, J. (2023). Supply chain management maturity and business performance: The Balanced Scorecard perspective. *Applied Sciences, 13*(4), 2065. https://doi.org/10.3390/app13042065

Pholphirul, P. (2021). Small and medium enterprises and cross-border trade in the Greater Mekong Subregion. *Journal of Asian Economic Integration, 3*(2), 134–156. https://doi.org/10.1177/26316846211015432

Porter, M. E. (2008). *Competitive advantage: Creating and sustaining superior performance*. simon and schuster.

Roongsong, T. (2022). The relationship between digital communication and public service according to the bank's Balanced Scorecard goals. *Thai Media Fund Journal, 1*(4), 1–12.

Roxas, B., & Chadee, D. (2013). Effects of formal institutional support on SME performance in the Philippines: The mediating role of entrepreneurial orientation. *Journal of Entrepreneurship in Emerging Economies, 5*(2), 121–133.

ScienceDirect. (2024). Fintech and government collaboration in enhancing SME access to finance. *Technological Forecasting and Social Change, 196*, 122871. https://doi.org/10.1016/j.techfore.2023.122871

Smith, A., & Johnson, B. (2022). Rethinking business performance in global value chains. *Journal of Business Research, 144*, 679–689.

Supari, M., & Anton, R. (2022). The impact of government subsidies on SME sustainability. *Small Business Economics, 58*(1), 123–140.

Thailand Development Research Institute (IDRI). (2024). *Revamp policies to boost Thai SMEs*. https://tdri.or.th/en/2024/08/revamp-policies-to-boost-thai-smes/

The Times. (2024, April 12). 10,000 small business leaders sign up to the management programme. https://www.thetimes.co.uk/article/10000-small-business-leaders-sign-up-to-management-programmeurl-enterprise-network-s3f8vfvpj

The Times. (2024, April 18). UK Export Finance to increase its support for SMEs fivefold. https://www.thetimes.co.uk/article/uks-export-credit-agency-to-increase-its-support-for-smes-fivefold-enterprise-network-q3df5xm5s

Williams, C. (2005). *Management* (3rd ed.). South-Western Thomson.

Zhang, L., Chen, Y., & Zhao, X. (2023). The impact of digital transformation on supply chain capabilities and supply chain competitive performance. *Sustainability, 15*(13), 10107. https://doi.org/10.3390/su151310107