

Responsiveness in Supply Chains: Comparative Competitive Implications for Malaysia and Singapore

Anthony Vaz¹, Connie Chan Kang Ni²

¹*School of Sustainable Supply Chain & Logistics, Malaysia University of Science and Technology
Petaling Jaya, 47810.*

Selangor Darul Ehsan, Malaysia

²*Prosci, 2950 E. Harmony Road, Suite 150, Fort Collins, CO 80528.*

anthony@must.edu.my

Received Jan 06, 2026, Revised: Jan 20, 2026, Accepted: Jan 23, 2026, **Published Online:** Mar 26, 2026

Reviewers: Anonymous Peer Review

Citation: Vaz, A. & Chan, C. K. N. (2026). Responsiveness in Supply Chains: Comparative Competitive Implications for Malaysia and Singapore. *International Journal of Supply Chain Management*, 15(1), 29-38, <https://doi.org/10.59160/ijscm.v15i1.6377>

Abstract— In the dynamic and globalized logistics landscape, supply chain competitiveness increasingly hinges on responsiveness and punctuality. This study investigates how this critical speed dimensions contribute to competitive advantage in Malaysia and Singapore, two strategically located nations in Southeast Asia. Drawing on qualitative survey data from logistics professionals and the general population, the research examines the multifaceted causes of lateness and delays, encompassing individual behaviours, organizational practices, and systemic infrastructural factors. Findings reveal distinct cultural and operational differences influenced by Hofstede's Long-Term vs. Short-Term Orientation framework, highlighting Singapore's emphasis on discipline and future planning versus Malaysia's flexible time management approach. The study underscores the necessity for integrated behavioural and structural interventions, such as improved communication, real-time updates, and organizational policy reforms, to enhance supply chain performance and customer satisfaction. By contextualizing supply chain speed beyond mere transportation velocity to include communication and decision-making efficiency, this research provides actionable insights for practitioners and policymakers aiming to bolster logistics effectiveness and regional competitiveness.

Keywords— Supply Chain Responsiveness; Punctuality in Logistics; Competitive Advantage; Malaysia and Singapore; Time Orientation and Culture

1. Introduction

In today's globalized and highly competitive business environment, supply chains are no longer

judged solely by their ability to move goods from point A to point B. Instead, they are evaluated based on five critical dimensions of competitive advantage: quality, cost, flexibility, dependability, and speed. These dimensions form the backbone of strategic supply chain management, influencing customer satisfaction, operational efficiency, and market positioning. Among these, speed—which encompasses both responsiveness and punctuality—has become increasingly vital [10]. It is not merely about fast transportation but also about how quickly and accurately organizations respond to internal and external demands [11]. In logistics, speed translates into real-time communication, timely deliveries, and proactive problem-solving, all of which are essential for maintaining a competitive edge.

1.1. Background of the study

The geographical positioning of Malaysia and Singapore along the Melaka Straits—one of the busiest and most strategic maritime corridors in the world—makes them central players in global logistics. Singapore has long established itself as a logistics powerhouse, boasting world-class port infrastructure, advanced customs systems, and a culture of operational discipline. Malaysia, while still developing its logistics ecosystem, has made significant strides in building regional logistics clusters such as Port Klang and the Penang Port. However, challenges remain in areas such as responsiveness, infrastructure coordination, and workforce punctuality. The Melaka Straits itself

handles a substantial portion of global maritime trade, making the efficiency of logistics operations in these two nations not just a regional concern but a global imperative. Understanding how responsiveness and punctuality are practiced and perceived in these contexts offers valuable insights into improving logistics performance across Southeast Asia.

1.2. Problem Statement

The primary goal of this study is to investigate how responsiveness and punctuality contribute to competitive advantage in supply chains and logistics, with a focus on Malaysia and Singapore. Despite their strategic importance, both countries face challenges that stem from poor communication and inconsistent responsiveness. These challenges manifest in several ways:

1.2.1 Time to Start a Business

The time needed to start a business is given emphasis by nations to encourage investment. How a nation performs in this measure is a good indicator of the general responsiveness of the ruling government, its civil service and the general responsiveness of its citizens. According to the World Bank's 2019 data, the time required to start a business in Malaysia was 18 days, whereas in Singapore, it was significantly shorter at just 2 days [15]. This stark contrast highlights Singapore's streamlined regulatory environment and efficient administrative processes, compared to other nations in Figure 1, which are designed to facilitate rapid business setup and attract foreign investment. Malaysia, while making progress in improving its business climate, still faces bureaucratic hurdles and procedural delays that can slow down the initiation of new enterprises. For logistics and supply chain companies, this difference in startup time can influence decisions on regional headquarters, operational hubs, and investment priorities, especially when speed and responsiveness are critical to competitive advantage.

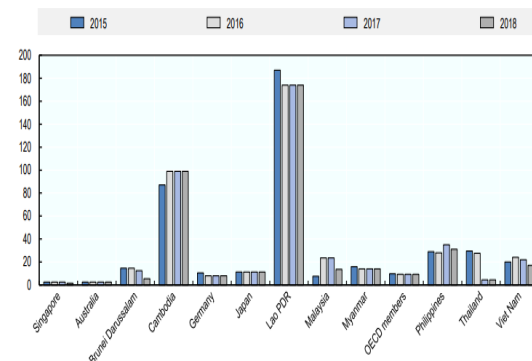


Figure 1. Time required to start a business, days

Source: [15].

1.2.2 Delayed deliveries

Delayed delivery is when a shipment, product or service fails to reach its intended destination. An example would be a shipment of electronics from Johor to Singapore that may be delayed due to miscommunication between the freight forwarder and customs officials, resulting in missed retail launch dates and financial penalties. A very rigid documentation process within the custom clearance and the resulting severe congestion will affect the trade flow in this particular zone [7], although blockchain brings critical advantages, such as real-time tracking of product movement, and fewer errors, which is stored in the shared platform for every stakeholder's view [9].

1.2.3 Customer Dissatisfaction

A logistics company that fails to respond promptly to a client's inquiry about shipment status risks losing that client to a competitor who offers real-time tracking and faster communication. Communication channels, such as phone calls, emails, live chat, or digital platforms, and how effectively these channels are utilized to ensure a seamless experience are important aspects for improved communication [3]. Customer Relationship Management (CRM) system features will need to consider several aspects of communication, especially when moving shipping containers for customers (Figure 2).

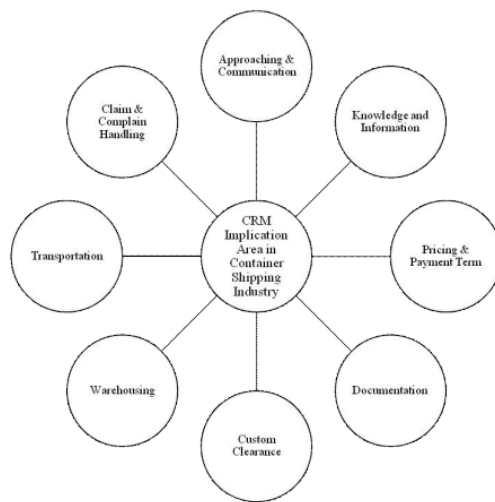


Figure 2. Aspects of CRM practices implemented across different service domains in the Container Shipping industry

Source: [3].

1.2.4 Operational Inefficiencies

In warehouse operations, delays in relaying instructions from supervisors to forklift operators can lead to bottlenecks, idle time, and reduced throughput. Key performance indicators (KPIs) on warehouse performance will be needed to improve communication for areas such as order accuracy, inventory turnover, and customer satisfaction [14].

1.2.5 Loss of Competitive Advantage

In international trade, companies that cannot guarantee timely delivery and responsive service are often bypassed in favour of more agile competitors, especially in time-sensitive industries like pharmaceuticals and perishables. Firms are increasingly engaging in complex international supply chains that involve sourcing raw materials from one country, manufacturing components in another, and assembling or distributing products in entirely different regions [4]. However, a decentralized approach balances cost efficiency with improved supplier collaboration, making it well-suited for manufacturers with geographically dispersed supplier networks [13].

These problems highlight the urgent need for a cultural and operational shift toward responsiveness and punctuality in logistics practices.

2.0 Expanding the concept of speed in supply chains

While speed is often associated with transportation velocity, in modern supply chains it encompasses a broader set of behaviours and systems that ensure timely and effective communication and action [16]. Several external change factors impact speed in supply chains (Figure 3).



Figure 3. External change factors

Source: [8].

2.1 Internal Change Factors

Several dimensions illustrate how speed can be operationalized internally, within logistics firms.

2.1.1 Promptness in Returning Calls

In logistics, time-sensitive decisions often hinge on quick communication and information processing technology can help reduce the time taken to make decisions [12]. For instance, a warehouse manager needing urgent clarification on a shipment's arrival time must be able to reach the freight coordinator without delay. A delay of even 30 minutes in returning a call can result in missed loading windows, overtime costs, or rerouting. Organizations that institutionalize prompt callbacks within 15 minutes for critical operations, demonstrate a culture of urgency and reliability.

2.1.2 Telephone Etiquette and First Contact Efficiency

The receptionist or front-line staff in a logistics firm serves as the first point of contact for clients, suppliers, and partners [2]. Answering calls within three rings is not just a courtesy, it signals organizational readiness and attentiveness. For example, a port operator in Singapore who answers promptly and directs inquiries efficiently contributes to the overall perception of the port's professionalism and responsiveness. In contrast, repeated missed calls or long hold times can damage reputations and erode trust.

2.1.3 Polite and Timely Logistics Personnel

Drivers, freight forwarders, and haulage companies are the face of logistics operations. Their punctuality and demeanour directly affect customer experience. A polite driver who arrives on time, communicates clearly, and handles goods with care reinforces the brand's reliability. Similarly, port operators who coordinate efficiently with customs and shipping agents ensure smooth transitions and avoid costly delays. It has been found that factors such as service quality, cost, delivery, reliability and reputation, customer service, product range, geographic reach, technology and automation,

cultural and social factors, and operational flexibility influence the customer in determining or choosing their freight forwarder for taking services which affects the performance of freight forwarding company [5]. In Malaysia, initiatives to train drivers in customer service and time management are beginning to show positive results, though more widespread adoption is needed.

2.1.4 Responsive Staff and Organizational Culture

Responsiveness must be embedded in the organizational culture. This includes empowering staff to make decisions quickly, encouraging proactive communication, and rewarding timely action. It has been researched that leadership triggers the mechanisms which influences adaptability, sense-giving, behavioural modelling, symbolic communication, system alignment, and distributed authority [1]. For example, logistics teams that use WhatsApp group mechanisms share real-time updates on shipment status, traffic conditions, or equipment availability can resolve issues faster than those relying solely on formal emails. However, leaders should also encourage traditional communication methods such as face-to-face meetings and emails remain essential for documentation, strategic planning, and formal coordination.

3. Theoretical Framework

This study draws on the time orientation aspect of Hofstede's Cultural Dimensions Theory (Figure 4). Hofstede's Cultural Dimensions Theory was developed and introduced in 1980 by Dutch social psychologist Geert Hofstede [6]. The framework was first published in his influential 1980 book, *Culture's Consequences*. His research suggests that cultural values shape behaviour in societies and organisations and for this study, the dimension of time orientation is emphasised. Although the theory views people in a country as a whole without considering subcultures and regional differences within a country, it provides a preliminary understanding of what to consider and what are some areas of potential opportunities for time orientation.

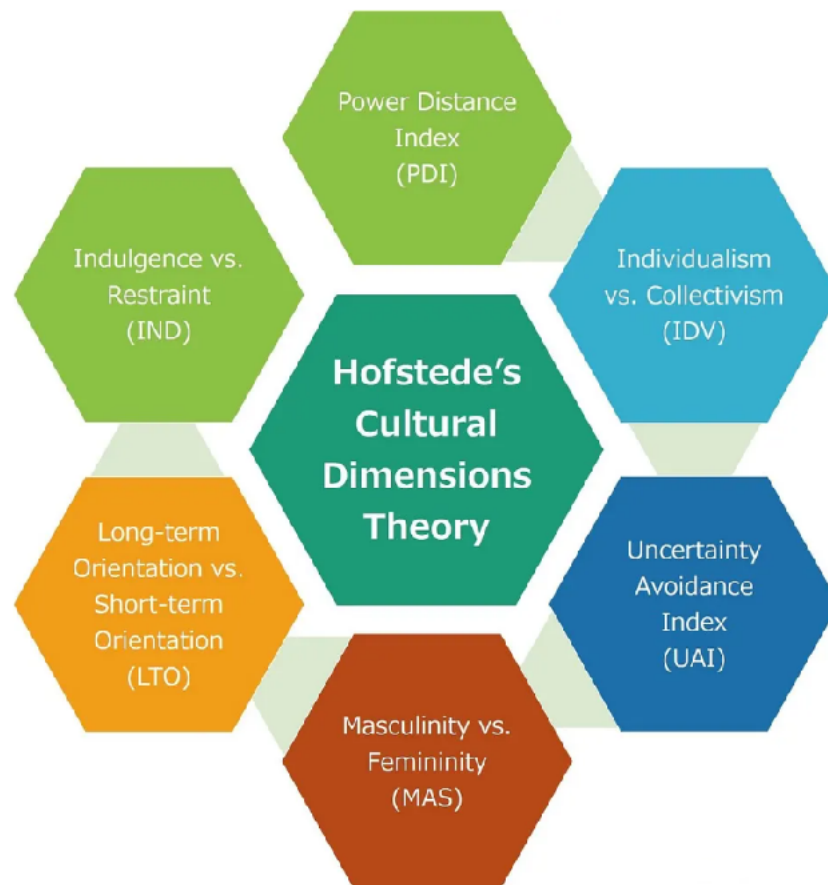


Figure 4. Hofstede's Cultural Dimension Theory

Source: [6].

In Hofstede's Cultural Dimensions Theory, the Long-Term Orientation vs. Short-Term Orientation dimension is most relevant to punctuality and lateness. Societies with a strong long-term orientation, such as Singapore, tend to value discipline, planning, and future-oriented behaviours like punctuality, which aligns with its reputation for logistics excellence. Whereas more short-term oriented cultures, such as Malaysia, which places greater tolerance for flexible time management may place greater emphasis on flexibility, relationships, and tolerance for lateness.

These cultural differences influence how organizations and individuals perceive and practice responsiveness and punctuality, affecting logistics outcomes.

3.1. Methodology

This study adopts a qualitative research design, drawing upon survey-based data to explore factors

influencing punctuality and lateness in Malaysia and Singapore. The unit of analysis for the study is twofold: first, individuals working within professional settings such as logistics professionals, supply chain managers, and operational staff; and second, members of the general population residing in Malaysia and Singapore. This approach ensures

that perspectives are captured from both industry practitioners, for whom punctuality is often critical to operational efficiency, and the broader public, where cultural and social norms play a significant role in shaping time-related behaviour.

This methodological framework provides a comprehensive basis for analyzing lateness and punctuality, while accounting for the cultural and structural differences that may exist between Malaysia and Singapore.

3.1.1 Questionnaire Enhancements

The existing questionnaire effectively captures perceptions of punctuality and its influencing factors. For this study, demographic and qualitative responses to the following questions will be analysed to uncover deeper insights into these two open-ended questions.

Question 1: What is the most common reason you (or your colleagues/classmates) are late?

Question 2: What one change would most improve punctuality in your context?

Data collection was carried out using an online questionnaire distributed through professional

networks, organizational mailing lists, and widely accessible social media platforms. This method provided a practical and efficient means of reaching diverse respondents across both countries, while also encouraging participation from individuals with different age groups, gender, qualification groups, type of job and employment status.

A total of 172 valid responses were collected, representing a fairly broad cross-section of the target population (Table 1).

Table 1: Demographic Data

		Frequency	Percent			Frequency	Percent
Gender	Male	108	62.8	Highest Qualifications	Secondary	27	15.7
	Female	64	37.2		Undergraduate	45	26.2
					Tertiary	50	29.1
					Master/Doctor	16	9.3
		Frequency	Percent				
Type of job	Blue Collar	30	17.4				
	White Collar	120	69.8				
	Others	22	12.8				
				Employment Status	Student	34	19.8
		Frequency	Percent				
Age	18-25	34	19.8	Self-Employed	23	13.4	
	26-35	76	44.2	Employed	102	59.3	
	36-45	35	20.4	Unemployed	13	7.6	
	46-55	20	11.6				
	+56	6	9.3				

3.1.2 Demographic Analysis

The demographic profile of respondents reflects a diverse sample across gender, age, education, employment status, and job categories in both Malaysia and Singapore. A majority of participants were male (62.8%), with females comprising 37.2% of the sample. The largest age group were those aged 26–35 years (44.2%), followed by 36–45 years (20.4%), indicating that the study predominantly represents working-age adults. In terms of education, respondents were fairly distributed across qualification levels, with a substantial portion holding tertiary qualifications (29.1%) and undergraduate degrees (26.2%), suggesting that most participants were reasonably

well-educated. Employment status showed that the majority were employed (59.3%), with smaller groups of students (19.8%) and self-employed individuals (13.4%), providing a balance of perspectives from different economic roles. The occupational breakdown revealed that most respondents were white-collar workers (69.8%), though blue-collar (17.4%) and other categories (12.8%) were also represented, ensuring input from both professional and manual work contexts. This demographic distribution provides a robust basis for analyzing punctuality and lateness across a varied spectrum of social and professional backgrounds.

3.1.3 Thematic Analysis

Table 2: Thematic Analysis Summary

The thematic analysis (Table 2) highlights several recurring factors influencing lateness and punctuality across respondents. Among the most frequently cited reasons for lateness were family

responses), and improvements in public transport (19 responses), along with institutional measures such as staggered work starts (17 responses) and stricter organizational policies (16 responses).

Question 1		Question 2	
Theme	Frequency	Theme	Frequency
Family duty	22	Use reminders	24
Meeting overrun	19	Real-time updates	20
Public transport delay	18	Better transport	19
Traffic congestion	17	Core hours	18
Underestimating travel time	16	Staggered starts	17
Bad weather	15	Stricter policies	16
Oversleeping	14	Awareness campaigns	15
Vehicle breakdown	13	Employer transit	13
Work overload	13	Other	13
Other (unique/miscellaneous)	13		
Flexible culture	12		

duties (22 responses), meeting overruns (19 responses), public transport delays (18 responses), and traffic congestion (17 responses), reflecting a mix of personal, organizational, and infrastructural challenges. On the solutions side, respondents emphasized the importance of using reminders (24 responses), real-time transport updates (20

These findings suggest that punctuality is shaped by a combination of individual time management practices, workplace expectations, and external systemic factors, underscoring the need for both behavioral and structural interventions to address lateness effectively.

3.1.4 Thematic (Empathy) Map

Table 3. Thematic (Empathy) Map

Theme	Thinking	Feeling	Doing	Saying
Family Duty	Concerned about family duty	Neutral	Trying to manage family duty	"Family duty."
Meeting overrun	Concerned about meeting overrun	Neutral	Trying to manage meeting overrun	"Meeting overrun"
Public transport delay	Concerned about public transport delay	Frustrated	Trying to manage public transport delay	"Public transport delay"
Traffic congestion	Concerned about traffic congestion	Frustrated	Trying to manage traffic congestion	"Traffic congestion"
Underestimating travel time	Concerned about underestimating travel time	Neutral	Trying to manage underestimating travel time	"Underestimating travel time."
Bad weather	Concerned about bad weather	Neutral	Trying to manage bad weather	"Bad weather"
Oversleeping	Concerned about oversleeping	Neutral	Trying to manage oversleeping	"Oversleeping"
Vehicle breakdown	Concerned about vehicle breakdown	Neutral	Trying to manage vehicle breakdown	"Vehicle breakdown"
Work overload	Concerned about work overload	Frustrated	Trying to manage work overload	"Work overload"
Other	Concerned about other reasons	Neutral	Trying to manage other reasons	"Varied explanations"
Flexible Culture	Concerned about flexible culture	Neutral	Trying to manage flexible culture	"Flexible Culture"

The empathy map analysis (Table 3) provides deeper insight into how respondents cognitively

and emotionally experience lateness and punctuality issues. While most themes reflect a

sense of concern, whether about family duties, transport delays, or workload, emotional responses varied, with frustration most evident in relation to traffic congestion, public transport delays, and work overload. Despite these challenges, respondents were generally seen as “trying to manage” the situations, indicating active but often strained coping strategies. The way participants

“say” and verbalize these issues (e.g., citing “family duty” or “meeting overrun”) reinforces that lateness is not perceived as carelessness, but rather as the result of external pressures and competing responsibilities. This suggests that interventions to improve punctuality must address both structural barriers and personal coping mechanisms.

3.1.5 User Journey Map

Table 4. User Journey Map

Theme/Trigger	Experience	Reaction	Impact
Family Duty	Experience family duty on way to work/class	Arrive late, feel stressed	Affects punctuality and perception by others
Meeting overrun	Experience meeting overrun	Arrive late, feel stressed	Affects punctuality and perception by others
Public transport delay	Experience public transport delay	Arrive late, feel stressed	Affects punctuality and perception by others
Traffic congestion	Experience traffic congestion	Arrive late., feel stressed	Affects punctuality and perception by others
Underestimating travel time	Experience underestimating travel time	Arrive late, feel stressed	Affects punctuality and perception by others
Bad weather	Experience bad weather	Arrive late, feel stressed	Affects punctuality and perception by others
Oversleeping	Experience oversleeping	Arrive late, feel stressed	Affects punctuality and perception by others
Vehicle breakdown	Experience vehicle breakdown	Arrive late, feel stressed	Affects punctuality and perception by others
Work overload	Experience work overload	Arrive late, feel stressed	Affects punctuality and perception by others
Other	Experience other reasons	Arrive late, feel stressed	Affects punctuality and perception by others
Flexible culture	Experience flexible culture	Arrive late, feel stressed	Affects punctuality and perception by others

The User Journey Map (Table 4), surrounding lateness reveals a consistent emotional and behavioural pattern across various triggers. Whether due to family duties, meeting overruns, transport delays, or weather conditions, individuals typically experience stress and arrive late, which in turn impacts their punctuality and how they are perceived by others. This repeated cycle of external disruptions leading to emotional

strain and reputational consequences highlights the systemic nature of lateness. Even in contexts with a flexible culture, the emotional toll remains, suggesting that flexibility alone may not fully mitigate the stress associated with being late. The map underscores the need for holistic interventions that address both the practical barriers and the emotional experiences tied to punctuality.

3.1.6 Proposed Strategies of this study

Table 5. Proposed Strategies to improve punctuality

Strategy	Most Common Country	Most Common Age Group	Most Common Employment Status
Use reminders	Malaysia	26-35	Employed

Real-time updates	Malaysia	26-35	Employed
Better transport	Malaysia	26-35	Employed
Core hours	Singapore	26-35	Employed
Staggered shifts	Malaysia	26-35	Employed
Stricter policies	Malaysia	26-35	Employed
Awareness campaigns	Malaysia	26-35	Employed
Employer transit	Malaysia	26-35	Employed
Other	Malaysia	26-35	Employed

The proposed strategies to promote punctuality (Table 5) reflect a comprehensive approach that aligns well with the thematic findings on lateness causes and emotional experiences. The emphasis on practical tools such as the use of reminders and real-time updates addresses the need for individual time management and coping mechanisms, assisting individuals in actively managing external disruptions. Infrastructure improvements like better transport and employer transit support the systemic changes necessary to mitigate delays caused by public transport and traffic congestion. Organizational strategies including core hours, staggered shifts, and stricter policies highlight the role of workplace expectations and structural adjustments in fostering punctuality. Awareness campaigns further complement these efforts by promoting a culture of punctuality and understanding around the diverse challenges faced by employees. Collectively, these strategies demonstrate a balanced focus on both behavioural and structural interventions, which is essential for effectively addressing the multifaceted nature of lateness illustrated in the findings. They cater predominantly to the employed age group of 26-35 in Malaysia and Singapore, positioning these strategies within a relevant demographic context to maximize impact.

3.1.7 Conclusion

In conclusion, this study highlights the critical role of responsiveness and punctuality in enhancing supply chain competitiveness within Malaysia and Singapore. The findings emphasize that supply chain speed extends beyond mere transportation velocity to include effective communication, decision-making efficiency, and organizational culture. Distinct cultural orientations influence how these nations manage time and punctuality, with Singapore exemplifying long-term discipline and Malaysia demonstrating greater flexibility. To address delays and inefficiencies, integrated behavioural and structural interventions such as

real-time updates, improved communication, and policy reforms are essential. These measures can significantly boost logistics performance, customer satisfaction, and regional competitiveness in the increasingly dynamic global supply chain landscape.

References

- [1] Al Hakim, Y. R., Sigita, D. S., & Irfan, M. (2022). Leadership Influence in Shaping Responsive Organizational Culture in the Face of Ongoing Change. *Journal of Social Science Studies*, 2(1), 207-212.
- [2] Baumann, S. (2022). *Handbook on Digital Business Ecosystems. Strategies, Platforms, technologies, Governance and Societal Challenges*. Edward Elgar Publishing Limited. UK.
- [3] Baxi, B., & Chaurasiya (2021), *H. CUSTOMER RELATIONSHIP MANAGEMENT PRACTICES BY FREIGHT FORWARDING AND SHIPPING INDUSTRY*. Publisher: Apple Books. ISBN: 978-93-92006-03-6
- [4] Cecil, P. (2024). Cross-Border Supply Chain Optimization: Strategies for Managing International Operations While Maintaining Speed and Cost Efficiency. *International Journal of Scientific Research and Management (IJSRM)*, 12(05), 6565-6588.
- [5] Garg, A. (2024). *A Study of the Factors Affecting the Performance of the Freight Forwarding Industry with Respect to Customer Preferences*. In *Emerging Trends in Smart Societies* (pp. 345-348). Routledge.
- [6] Hofstede, G. (1984). Cultural Dimensions in Management and Planning. *Asia Pacific Journal of Management*, 1, 81-99. <https://doi.org/10.1007/BF01733682>
- [7] Jeevan, J., Keng Bin, L., Rosni Othman, M., Mohd Salleh, N. H., Somu, R., & Ming Ming, S. (2021). Cross-border freight movement between Thailand-Malaysia-Singapore: utilising border based dry ports

- for effective inland transaction. *Pomorstvo*, 35(2), 341-352.
- [8] Kot, S. (2023). *Development Insights on Supply Chain Management in Small & Medium-sized Enterprises*. Logos Verlag Berlin GmbH Deutsche Nationalbibliothek.
- [9] Maashari, J, A, A. (2025). Role of Blockchain Technology in Supply Chain Management. *International Journal of Supply Chain Management*, 14(2), 66-73, <https://doi.org/10.59160/ijscm.v14i2.6296>
- [10] Moh'd Anwer, A. S. (2022). An investigation of transportation logistics strategy on manufacturing supply chain responsiveness in developing countries: the mediating role of delivery reliability and delivery speed. *Heliyon*, 8(11), e11283.
- [11] Özcan, S., Oflaç, B. S., Tokcaer, S., & Özpeynirci, Ö. (2024). Mastering timely deliveries using dynamic capabilities: perspectives from logistics service providers and shippers. *The International Journal of Logistics Management*, 35(5), 1653-1677.
- [12] Payne, Y. (2023). *Speed is Essential in Quick Response Logistics; Technology is the Key to Unlocking Quick Response Logistics: Leveraging Tech for Speed*. Retrieved from <https://www.iienstitu.com/en/blog/quick-response-logistics-leveraging-technology-for-speed>
- [13] Rajesh, A. N. (2025). Strategic VMI Adoption in LSP Operations: Minimizing Truck TAT in JIT Supply Chains. *International Journal of Supply Chain Management*, 14(3), 16-27. <https://doi.org/10.59160/ijscm.v14i3.6308>
- [14] Venkatesh Sundarraman, K., & Mohamed Mustafa, M. F. A. (2024). Enhancing Warehouse Efficiency Of 3PL Warehouse: Suggesting Key Performance Indicators For Quality and Productivity. Retrieved from <https://odr.chalmers.se/items/642a9606-b82a-415c-8511-7f5acf96079f>
- [15] World Bank (2021), *Time required to start a business (days) – Thailand, Philippines, Brunei Darussalam, Australia, Malaysia, Vietnam, Myanmar, Cambodia, Lao PDR, Germany, Japan, Singapore, OECD members*. Retrieved from <https://genderdata.worldbank.org/en/indicators/ic-reg-durs>
- [16] Chowdury, M.D. & Khan, M. D. (2025). The impact of lead time and requisition quantity on delivery performance for fixed assets and recurring items. *International Journal of Supply Chain Management*, 14(6), 25-34.