



Original Article

# The relationship between logistics integration capability, logistics resources and logistics costs of garment export enterprises in Vietnam

Nguyen Tien Dung<sup>1,\*</sup>, Ho Xuan Huong<sup>2</sup>, Dang Dinh Dao<sup>3</sup>

<sup>1</sup>Quy Nhon University

No. 170 An Duong Vuong, Quy Nhon City, Binh Dinh, Vietnam

<sup>2</sup>University of Economics Ho Chi Minh City

No. 59C Nguyen Dinh Chieu, District 3, Ho Chi Minh City

<sup>3</sup>Thuyloi University

No. 175 Tay Son Street, Dong Da District, Hanoi, Vietnam

Received: November 11, 2024

Revised: December 20, 2024; Accepted: April 25, 2025

**Abstract:** Reducing logistics costs is considered one of the most critical tasks for Vietnam's garment industry to maintain its position as one of the world's leading countries in garment export value in the future. In addition to the strategy of outsourcing logistics services, an increasing number of enterprises in the garment export sector are choosing to establish internal functional departments to actively manage their logistics activities. This approach not only enhances their control capabilities and reduces dependence on external service providers but also enables enterprises to proactively optimize processes and reduce logistics costs. This study utilizes the PLS-SEM model to explore the relationships between logistics integration capability, logistics location, and relational resources with the logistics costs of 125 garment export enterprises in Vietnam. The findings indicate that logistics integration capability, logistics location, and relational resources significantly reduce logistics costs. Furthermore, logistics integration capability acts as a mediator in the relationships between logistics location, and relational resources with logistics costs. These results underscore a vital mechanism through which enterprises can reduce logistics costs by leveraging their logistics integration capability, logistics location, and relational resources.

**Keywords:** Resource-based view, logistics costs, logistics integration capability, logistics resources, garment export enterprise.

## 1. Introduction

Enhancing logistics performance overall and reducing logistics costs specifically is considered one of the key strategies for firms to

sustain competitive advantage (Holl & Mariotti, 2018). To implement this strategy effectively, it is essential for firms to identify the factors influencing their logistics costs. This topic has continued to attract significant attention from

\* Corresponding author

E-mail address: [nguyentindung@qnu.edu.vn](mailto:nguyentindung@qnu.edu.vn)

<https://doi.org/10.57110/vnu-jeb.v5i2.366>

Copyright © 2024 The author(s)

Licensing: This article is published under a CC BY-NC 4.0 license.

both researchers and practitioners. Numerous researchers, based on the Resource-Based View (RBV), argue that logistics performance in general, and logistics costs in particular, are influenced by the resources and logistics capabilities possessed by the firm (Karia & Wong, 2013; Lyu et al., 2019a).

According to Lai et al. (2008) and Lee et al. (2016), logistics integration capability is considered one of the most important logistics capabilities for both manufacturing and trading companies, as well as logistics service providers, in enhancing the quality of customer service and reducing logistics costs. Through this capability, firms can effectively combine and allocate resources, maximizing their functions to support logistics operations. To strengthen integration capability, Lyu et al. (2019b) recommend selecting production or supply locations that facilitate communication and information exchange with customers and suppliers. Additionally, establishing strong relationships with these partners improves coordination and communication, thereby enhancing logistics integration and promoting more efficient supply chain operations (Shou et al., 2017).

On the other hand, when a firm selects a favorable location for its production plant or sales office—where there is a plentiful labor supply, access to government incentives, and easy connectivity to transportation networks such as road, rail, sea, and air—it facilitates better synchronization between production and consumption, leading to a reduction in logistics costs (Lyu et al., 2019b). Additionally, when a company builds and maintains strong relationships with customers and suppliers, these partners can participate in planning, executing, and coordinating logistics activities. This collaboration allows the firm to effectively leverage both its resources and those of its partners, thereby optimizing operational efficiency and reducing logistics costs (Srivastava et al., 2015).

To the best of the authors' knowledge, few studies have examined the simultaneous impact of logistics integration capability, logistics location, and relational resources on logistics costs. This study focuses on garment export enterprises, a sector heavily reliant on logistics to support raw material imports and production for export. Vietnam, one of the world's leading garment exporters with an export value of 35 billion USD in 2022 (Duong et al., 2024), provides a suitable context for the sample. Grounded in the RBV, this study addresses two gaps: (1) assessing the direct effects of logistics integration capability, logistics location, and relational resources on logistics costs, and (2) testing the mediating role of logistics integration capability.

## 2. Theoretical framework and hypothesis development

### 2.1. Resource-Based View

Barney (1991), building on Wernerfelt's (1984) work, developed the RBV with the VRIN framework to identify resources that create sustainable competitive advantages. This theory is relevant for studying the impact of logistics resources and capabilities on logistics costs, which reflect logistics performance (Olavarrieta & Ellinger, 1997). According to Lai et al. (2008), Lee et al. (2016), and Yang et al. (2009), logistics resources include both tangible (e.g., factories, equipment, location) and intangible resources (e.g., knowledge, organizational structure, relationships). Logistics capabilities, especially integration capability, are key resources that help firms optimize processes and reduce logistics costs (Teece et al., 2016).

### 2.2. Logistics costs

Lambert et al. (1998) define logistics costs as expenses related to the distribution and storage of goods, including customer service, transportation, warehousing, inventory management, purchasing, and order processing. However, Lai et al. (2008) offer a more suitable classification for the garment industry, focusing on transportation, warehousing, inventory management, order processing, and logistics administration costs. This is because purchasing costs are minimal and included in logistics administration, as raw materials for subcontracting are typically sourced from designated or traditional suppliers, reducing the need for supplier selection.

Engblom et al. (2012) and Zeng and Rossetti (2003) use direct measures like the percentage of logistics costs relative to revenue or total costs to assess logistics costs at the firm level. However, recent research favors alternative metrics, such as logistics cost advantage and logistics cost performance, proposed by Karia (2018) and Lai et al. (2008). These measures assess logistics cost management effectiveness, aiming to reduce costs and gain a competitive advantage. The implication of these two measures can be understood as follows: as logistics cost performance increases, the logistics costs of the firm decrease.

### 2.3. Logistics integration capability

In logistics operations, the integration of resources involves the coordination between various logistics resources to maximize customer value, minimize costs, and improve delivery speed (Lyu et al., 2019b). Bae (2012) categorizes logistics integration capability into two types: (1) internal integration within the firm, and (2) external integration with supply

chain partners. This integration occurs through collaboration and interaction, enabling the joint use of resources such as personnel, infrastructure, and information.

#### 2.4. Logistics location and relational resources

##### 2.4.1. Logistics location

Freeman (2010) defines logistics location as a firm's access to key resources, including suppliers, government agencies, skilled labor, services, and transportation networks. Lyu et al. (2019b) consider logistics location a valuable resource that, along with financial and technological assets, provides a competitive advantage. Carnasciali and Delazari (2011) argue that a favorable location offers a competitive edge, while Kim (2021) highlights its impact on transportation costs, influencing production and distribution planning for sustainable growth.

##### 2.4.2. Relational resources

Relational resources refer to a firm's ability to build close relationships with customers and suppliers, enhancing communication, coordination, collaboration, and information sharing (Karia & Wong, 2013). Morgan & Hunt (1999) classify these resources into internal relationships (within the firm) and external relationships (with suppliers, customers, and other stakeholders). Strong, long-term relationships improve operational outcomes, reduce transportation and inventory costs, and enhance service quality, thus lowering logistics costs (Srivastava et al., 2015).

#### 2.5. The impact of logistics integration capability, logistics location, and relational resources on logistics costs

##### 2.5.1. The impact of logistics integration capability on logistics costs

Firms can reduce logistics costs and improve operational efficiency by integrating resources to optimize equipment, space, and labor usage, thereby eliminating inefficiencies across the logistics process (Huo et al., 2014). Streamlining operations also minimizes unnecessary inventory, lowering holding costs and overstocking risks. Furthermore, integration enables managers to share critical information on demand, purchasing, production, and finance with internal departments and partners, improving demand forecasting and, consequently, enhancing logistics cost performance (Glenn Richey et al., 2009; Lee et al., 2016). Based on these arguments and supporting empirical evidence, the authors propose the following hypothesis:

H1: The greater the logistics integration capability, the lower the logistics costs.

##### 2.5.2. The impact of logistics location on logistics costs

Freeman and Styles (2014) argue that strategically locating production facilities helps

businesses reduce transportation costs, improve production-consumption synchronization, and create a more balanced transportation system, ultimately lowering logistics costs. Lyu et al. (2019b) further demonstrate that firms based in logistics parks with convenient road and rail networks strengthen connections with customers and partners, enhancing service quality and reducing logistics costs. Additionally, proximity to suppliers or distribution networks allows businesses to minimize the number of warehouses by building large distribution centers at strategic points. A favorable location also provides access to local support policies and skilled labor for logistics activities, indirectly lowering logistics costs (Lyu et al., 2019a). Therefore, the authors propose the following hypothesis:

H2: The more advantageous the logistics location, the lower the logistics costs.

##### 2.5.3. The impact of relational resources on logistics costs

Karia and Wong (2013) found that strong, long-term relationships with customers and suppliers enable their participation in logistics planning and coordination, enhancing satisfaction and reducing costs. Yang and Lirn (2017) further suggest that such relationships help firms optimize operations and improve logistics systems, creating a competitive advantage in logistics costs. Therefore, the authors propose the following hypothesis:

H3: The greater the relational resources, the lower the logistics costs.

#### 2.6. The mediating role of logistics integration capability in the relationship between logistics location, relational resources, and logistics costs

Amit and Schoemaker (1993) argue that resources are input factors in the production process, while capabilities are complex processes that enable firms to deploy resources effectively. However, resources alone are insufficient for sustaining long-term superior performance (Penrose, 2009). Capabilities are essential for transforming resources into valuable outputs by enhancing efficiency and coordination (Shou et al., 2017). The RBV emphasizes the relationship between resources, capabilities, and performance. Accordingly, the impact of logistics location and relational resources on logistics costs is both direct and mediated by integration capabilities.

Lyu et al. (2019b) provide evidence that logistics integration capability mediates the relationship between logistics location and logistics performance. They emphasize that beyond proximity to transportation routes, firms should consider how location supports communication and information exchange with customers and suppliers. Enhancing logistics integration capability can help reduce logistics

costs. Based on this, the authors propose the following hypothesis:

H4a: Logistics integration capability mediates the relationship between logistics location and logistics costs.

Shou et al. (2017) indicate that close relationships with customers and suppliers enable firms to implement, coordinate, share information, and enhance interaction and communication with these partners. This strengthens the logistics integration capability with them. Once logistics integration capability

is improved, it allows for more effective coordination of logistics activities, ensuring flexibility and optimization, which leads to a reduction in logistics costs (Liu & Lai, 2016). Therefore, the authors propose the following hypothesis:

H4b: Logistics integration capability mediates the relationship between relational resources and logistics costs.

In summary, the conceptual model of this research is illustrated in Figure 1.

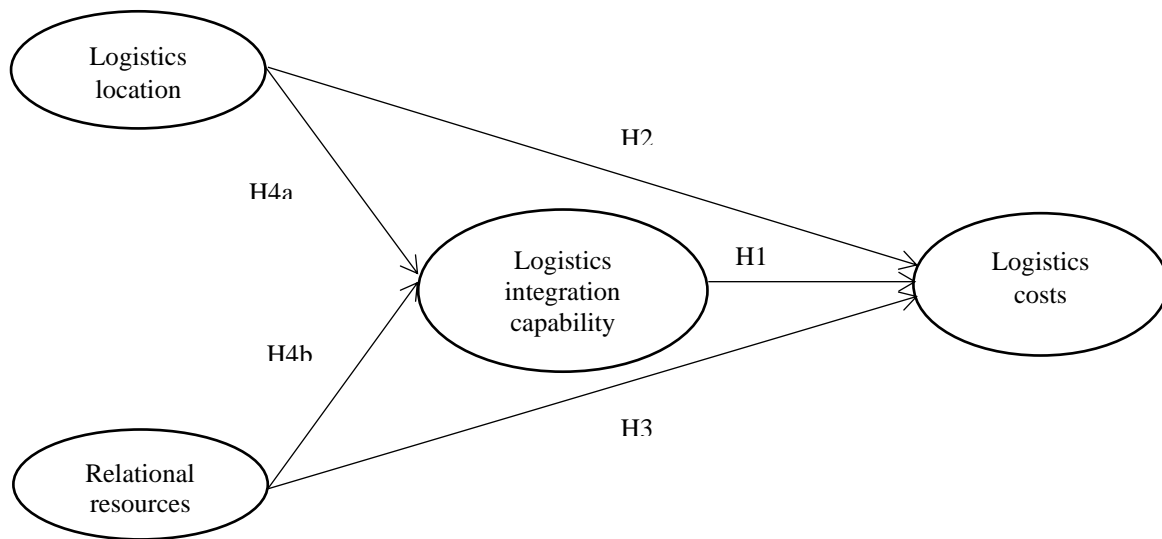


Figure 1. Conceptual model  
Source: Proposed by the authors.

### 3. Methodology

#### 3.1. Analysis method

The Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was employed to assess the reliability and validity of the measurement scales, as well as to evaluate the structural model and hypotheses. This method is particularly suitable for the current study for two reasons: (1) PLS-SEM is effective with small sample sizes compared to other methods like CB-SEM (Tran & Huang, 2022), and (2) unlike AMOS or LISREL, SmartPLS does not require the assumption of multivariate normality in the data (Kamble et al., 2023). The SmartPLS software (version 4.0) was used to analyze both the measurement model and the structural model. The criteria for evaluating the measurement model, structural model, and hypothesis testing followed the guidelines outlined by (Hair et al., 2019).

#### 3.2. Research sample and respondents

The authors employed a convenience sampling method and conducted the survey through two approaches: (1) contacting respondents via phone and email based on contact lists from the Vietnam Textile and Apparel Association (VITAS) and the Vietnam

Chamber of Commerce and Industry (VCCI); and (2) collecting survey responses at the SaigonTex – SaigonFabric Exhibition held in Ho Chi Minh City from April 10 to 13, 2024. The survey period lasted from February to April 2024. A total of 136 responses were collected, of which 11 were discarded due to missing information, leaving 125 valid responses for analysis. Hair et al. (2019) suggested that when using the PLS-SEM method, the “10-times rule” requires a minimum sample size of 50 observations for this study. Accordingly, the collected sample size of 125 observations satisfies this recommendation.

The survey respondents voluntarily participated, and each had at least two years of experience in the import-export and logistics sectors of garment enterprises in Vietnam. Respondents’ job positions included: Director or Vice Director (2.4%), Head or Deputy Head of Department (33.6%), and Head of the Import-Export or Logistics Department (64%). Regarding enterprise size, based on the number of employees, small enterprises (fewer than 100 employees) accounted for 13.6%, medium-sized enterprises (100-299 employees) for 20.8%, and large enterprises (more than 300 employees) for 65.6%. Most of the enterprises had been operating in Vietnam for five years or more

(79.2%), with a relatively even distribution across the three regions: Northern Vietnam (37.6%), Central Vietnam (34.4%), and Southern Vietnam (28%).

### 3.3. Measurements

All scales in the research model were adapted and modified from previous studies. The preliminary questionnaire was first translated from English to Vietnamese, and then back to English by two lecturers specializing in Economics and Business Administration to ensure accuracy. The research team conducted interviews with nine experts to assess the relevance of the research model and the scales. Based on the feedback from these interviews, the preliminary questionnaire was adjusted. The official questionnaire consists of two parts: Part 1 gathers information about the enterprise and the respondent, while Part 2 includes questions regarding resources, logistics capabilities, and logistics costs. The specific measurement scales are listed in Appendix A.1.

The logistics cost performance scale, which measures the logistics cost variable in the model (with higher performance corresponding to lower logistics costs), was adapted and modified from Lai et al. (2008) and consists of nine observed variables. However, after consulting with the nine experts, eight of them recommended using five observed variables directly related to logistics: order management costs, inventory costs, warehouse costs, transportation costs, and logistics administration costs. The logistics integration capability scale,

developed by Lyu et al. (2019b), is measured using four indicators. The logistics location scale is measured using a three-indicator scale developed by Lyu et al. (2019a). The relational resources scale is measured using a three-indicator scale adapted from Karia and Wong (2013). All observed variables were measured using a Likert scale, with points ranging from 1 (strongly disagree) to 7 (strongly agree).

## 4. Results

### 4.1. Measurement model

This study evaluated the measurement model using Cronbach's Alpha, composite reliability (CR), and average variance extracted (AVE), requiring Cronbach's Alpha and CR to exceed 0.70 and AVE to surpass 0.50. The results show that the measurement scales for logistics cost performance, logistics integration capability, logistics location, and relational resources meet the standards for reliability and validity.

To evaluate the discriminant validity of the research variables in the model, the results in Table 2 show that the square root of the AVE for each variable is greater than its correlation coefficients with other variables in the model. Additionally, all HTMT values are below 0.9. Therefore, it can be concluded that the discriminant validity of the research variables is assured. Based on these analyses, the measurement model meets the criteria for reliability, convergent validity, and discriminant validity.

Table 1: Accuracy analysis of constructs and indicators

Constructs	Items	Factors loading	Cronbach's Alpha	CR	AVE
Logistics cost performance (LCper)	LCper1	<b>0.662</b>	0.842	0.889	0.617
	LCper2	0.855			
	LCper3	0.744			
	LCper4	0.842			
	LCper5	0.810			
Logistics integration capability (INT)	INT1	0.808	0.802	0.870	0.625
	INT2	0.769			
	INT3	0.766			
	INT4	0.820			
Logistics location (LOR)	LOR1	<b>0.575</b>	0.689	0.824	0.617
	LOR2	0.871			
	LOR3	0.874			
Relational resources (RER)	RER 1	0.906	0.850	0.909	0.771
	RER 2	0.927			
	RER 3	0.795			

Notes: (1) LCper1 (0.662) and LOR1 (0.575) had outer loadings below 0.7, but their Cronbach's Alpha exceeded 0.6, CR surpassed 0.7, and AVE was above 0.5. As they are essential to capturing the constructs' dimensions, both variables were retained in the model; (2) Convergent validity is ensured as the AVE values for all latent variables exceed the threshold of 0.5.

Source: Data from authors' survey.

Table 2: Discriminant validity assessment using Fornell & Larcker’s criterion and HTMT values

Latent variables	LCper	INT	LOR	RER
Logistics cost performance (LCper)	<b>0.786</b>	0.717	0.628	0.621
Logistics integration capability (INT)	0.859	<b>0.791</b>	0.469	0.614
Logistics location (LOR)	0.788	0.591	<b>0.786</b>	0.682
Relational resources (RER)	0.746	0.720	0.538	<b>0.878</b>

Notes: (1) The bold values along the diagonal represent the square root of the AVE; (2) The correlation coefficients and HTMT values are located above and below the diagonal, respectively.

Source: Data from authors’ survey.

4.2. Structural model

4.2.1. The quality of the proposed model

According to Hair et al. (2019), the values of R<sup>2</sup> and Q<sup>2</sup> (Stone-Geisser’s Index) are used to assess the quality of the structural model in terms of the explanatory power and predictive relevance of the endogenous variables, respectively. The results of the structural model quality assessment show that the lowest R<sup>2</sup> and Q<sup>2</sup> values are 0.404 and 0.351, respectively, indicating that the structural model has good quality. Furthermore, the VIF values for all conceptual constructs are below 5.0, suggesting no multicollinearity issues among the explanatory variables.

4.2.2. Testing the hypotheses in the proposed research model

Direct effects

The study employed the bootstrapping technique with 5,000 resamples (n = 5,000) and

an initial sample size of 125 observations. The results indicate that all hypotheses were supported. Specifically, logistics integration capability, logistics location, and relational resources have positive and statistically significant impacts on logistics cost performance, demonstrating that these factors contribute to reducing logistics costs for firms.

For H1, the impact of logistics integration capability on logistics cost performance shows  $\beta = 0.467$ ,  $t = 7.026$ ,  $p = 0.000 < 0.05$ . For H2, the impact of firm location on logistics cost performance is  $\beta = 0.322$ ,  $t = 3.374$ ,  $p = 0.001 < 0.05$ . For H3, the impact of relational resources on logistics cost performance reports  $\beta = 0.162$ ,  $t = 1.738$ ,  $p = 0.082 < 0.1$ . The corresponding  $f^2$  values, which represent effect sizes, are 0.358 for the impact of logistics integration capability, 0.194 for the impact of logistics location, and 0.039 for the impact of relational resources on logistics cost performance.

Table 3: Results of hypotheses testing in the structural model

Paths (hypotheses)	Original sample (O)	Sample mean (M)	STDEV	T statistics	P-values	Results	f <sup>2</sup>
<b>Direct effects</b>							
INT → LCper	0.467	0.477	0.066	7.026	0.000	H1: Support	0.358
LOR → LCper	0.322	0.313	0.095	3.374	0.001	H2: Support	0.194
RER → LCper	0.162	0.155	0.093	1.738	0.082	H3: Support	0.039
<b>Specific indirect effects</b>							
LOR → INT → LCper	0.091	0.098	0.039	2.318	0.021	H4a: Support	
RER → INT → LCper	0.237	0.246	0.053	4.438	0.000	H4b: Support	

Notes: (1) LCper: Logistics cost performance; INT: Logistics integration capability; LOR: Logistics location; RER: Relational resources; (2) N = 125, Bootstrap sample size 5,000.

Source: Data from authors’ survey.

Intermediate effects (Specific indirect effects)

The study employs the bootstrapping method with 5,000 resamples using PLS-SEM software to examine moderating and mediating effects, instead of relying on the Baron-Kenny procedure or the Sobel test (Zhao et al., 2010). The research investigates the mediating role of logistics integration capability in the relationship between logistics location and relational resources on logistics cost performance among Vietnamese garment export enterprises. The results support both H4a ( $\beta = 0.091$ ,  $t = 2.318$ ,  $p = 0.021 < 0.05$ )

and H4b ( $\beta = 0.237$ ,  $t = 4.438$ ,  $p = 0.000 < 0.05$ ). These findings indicate that logistics integration capability partially mediates the relationship between logistics location, relational resources and logistics cost performance in enterprises.

5. Discussion

The research results indicate that logistics integration capability, logistics location, and relational resources directly contribute to reducing logistics costs for garment export companies in Vietnam. Specifically, the good

integration of both internal and external resources within a firm helps minimize unnecessary expenses and optimize logistics processes. This finding aligns with the research by Bae (2012), Lee et al. (2016), and Liu and Lai (2016). In addition, companies located near key transportation systems, such as roads, railways, seaports, and industrial zones, can easily access high-quality labor and government incentives, which helps reduce transportation and inventory costs, as highlighted by Lyu et al. (2019b, 2019a).

Relational resources in logistics operations also help reduce logistics costs by improving coordination and information sharing among partners to optimize logistics activities. These results support prior findings by Karia and Wong (2013) and Shou et al. (2017). Moreover, the mediating role of logistics integration capability further enhances the impact of logistics location and relational resources, allowing firms to leverage these factors to optimize their supply chains and reduce costs.

The findings of this study provide significant implications for managers. Specifically, enterprises should focus on enhancing their logistics integration capabilities, both internally and externally, to reduce logistics costs and optimize the efficiency of other resources. Additionally, they should leverage logistics location advantages by selecting strategic sites near seaports, distribution centers, or key transportation routes, while fostering sustainable relationships with partners to share information and mitigate supply chain risks. The logistics integration capability should be regarded as a critical mediating factor that effectively connects logistics location and relational resources to achieve overall cost reduction. Adopting these strategies with a long-term perspective can ensure sustainable competitive advantages in the context of globalization.

Although this study makes significant contributions to both theory and practice, there are several limitations. First, the research focuses solely on garment enterprises in Vietnam, so future studies could broaden the scope by testing the model in other countries to enhance its generalizability. Second, the study relies on cross-sectional data, which limits the ability to assess the long-term impact of the independent variables on the dependent variable. Future research should incorporate both longitudinal and cross-sectional data to more accurately verify causal relationships.

### Appendix A.1

---

#### **Logistics cost performance (Lcper)**

Reference: Lai et al. (2008)

Comparing with your major competitors:

---

LCper1: Your company has lower order management cost

---



---

LCper2: Your company has lower transportation cost

---

LCper3: Your company has lower warehousing cost

---

LCper4: Your company has lower inventory cost

---

LCper5: Your company has lower logistics administration cost

---

#### **Logistics integration capability (INT)**

Reference: Lyu et al. (2019b)

---

INT1. Your company demonstrates a strong capability to effectively integrate tangible logistics resources within the organization, including technology and infrastructure.

---

INT2. Your company demonstrates a strong capability to effectively integrate intangible logistics resources within the organization, including knowledge, relationships, and organizational structure.

---

INT3. Your company exhibits a robust capability to effectively integrate external tangible logistics resources, including the capital, assets, and personnel of customers and suppliers.

---

INT4. Your company demonstrates the ability to integrate external intangible logistics resources, including the information, knowledge, and relationships of customers and suppliers.

---

#### **Relational resources (RER)**

Reference: Karia and Wong (2013)

---

RER1. Your company establishes coordination/collaboration with business partners.

---

RER2. Your company is committed to sharing information with business partners.

---

RER3. Your company tends to recruit employees with strong communication skills.

---

#### **Logistics location (LOR)**

Reference: Lyu et al. (2019b)

---

LOR1. Factories, workshops, and warehouses of your company are located near major roadways.

---

LOR2. Factories, workshops, and warehouses of your company are located near railway stations, seaports, and airports.

---

LOR3. Factories, workshops, and warehouses of your company are located near major industrial zones (or retail systems) and logistics centers, with access to preferential policies (such as tax incentives) and easy access to a high-quality workforce.

---

### References

- Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(1), 33–46.  
<https://doi.org/10.1002/smj.4250140105>
- Bae, H. (2012). The influencing factors of logistics integration and customer service performance for value creation of port logistics firms. *The Asian Journal of Shipping and Logistics*, 28(3), 345–368.  
<https://doi.org/10.1016/j.ajsl.2013.01.004>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99.  
<https://doi.org/10.1177/014920639101700108>
- Carnasciali, A. M. dos S., & Delazari, L. S. (2011). A localização geográfica como recurso organizacional: Utilização de sistemas especialistas para subsidiar a tomada de decisão locacional do setor bancário. *Journal of Contemporary Administration*, 15(1),

- Article 1. <https://doi.org/10.1590/S1415-6552011000100007>
- Duong, A., Le Anh, D. T., Le Thi Cam, H., Nayak, R., George, M., Bui Thi Cam, L., & Quang, H. T. (2024). Navigating global supply networks: A strategic framework for resilience in the apparel industry. *Operations Management Research*, 17(2), 523–543. <https://doi.org/10.1007/s12063-024-00495-z>
- Engblom, J., Solakivi, T., Töyli, J., & Ojala, L. (2012). Multiple-method analysis of logistics costs. *International Journal of Production Economics*, 137(1), 29–35. <https://doi.org/10.1016/j.ijpe.2012.01.007>
- Freeman, J., & Styles, C. (2014). Does location matter to export performance? *International Marketing Review*, 31(2), 181–208. <https://doi.org/10.1108/IMR-02-2013-0039>
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139192675>
- Glenn Richey, R., Chen, H., Upreti, R., Fawcett, S. E., & Adams, F. G. (2009). The moderating role of barriers on the relationship between drivers to supply chain integration and firm performance. *International Journal of Physical Distribution & Logistics Management*, 39(10), 826–840. <https://doi.org/10.1108/09600030911011432>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Holl, A., & Mariotti, I. (2018). The Geography of logistics firm location: The role of accessibility. *Networks and Spatial Economics*, 18(2), 337–361. <https://doi.org/10.1007/s11067-017-9347-0>
- Huo, B., Qi, Y., Wang, Z., & Zhao, X. (2014). The impact of supply chain integration on firm performance. *Supply Chain Management: An International Journal*, 19(4), 369–384. <https://doi.org/10.1108/SCM-03-2013-0096>
- Kamble, S. S., Gunasekaran, A., Subramanian, N., Ghadge, A., Belhadi, A., & Venkatesh, M. (2023). Blockchain technology's impact on supply chain integration and sustainable supply chain performance: Evidence from the automotive industry. *Annals of Operations Research*, 327(1), 575–600. <https://doi.org/10.1007/s10479-021-04129-6>
- Karia, N. (2018). Knowledge resources, technology resources and competitive advantage of logistics service providers. *Knowledge Management Research & Practice*, 16(3), 414–426. <https://doi.org/10.1080/14778238.2018.1496570>
- Karia, N., & Wong, C. Y. (2013). The impact of logistics resources on the performance of Malaysian logistics service providers. *Production Planning & Control*, 24(7), 589–606. <https://doi.org/10.1080/095537287.2012.659871>
- Kim, J. (2021). Identifying the impact of highway accessibility on manufacturing firm location in Korea. *KSCCE Journal of Civil Engineering*, 25(9), 3523–3532. <https://doi.org/10.1007/s12205-021-2218-8>
- Lai, K.-H., Wong, C. W. Y., & Cheng, T. C. E. (2008). A coordination-theoretic investigation of the impact of electronic integration on logistics performance. *Information & Management*, 45(1), 10–20. <https://doi.org/10.1016/j.im.2007.05.007>
- Lambert, D. M., Stock, J. R., & Ellram, L. M. (1998). *Fundamentals of logistics management*. Irwin/McGraw-Hill.
- Lee, H.-Y., Seo, Y.-J., & Dinwoodie, J. (2016). Supply chain integration and logistics performance: The role of supply chain dynamism. *The International Journal of Logistics Management*, 27(3), 668–685. <https://doi.org/10.1108/IJLM-06-2015-0100>
- Liu, C.-L., & Lai, P.-Y. (2016). Impact of external integration capabilities of third-party logistics providers on their financial performance. *The International Journal of Logistics Management*, 27(2), 263–283. <https://doi.org/10.1108/IJLM-09-2014-0155>
- Lyu, G., Chen, L., & Huo, B. (2019a). Logistics resources, capabilities and operational performance. *Industrial Management & Data Systems*, 119(2), 230–250. <https://doi.org/10.1108/IMDS-01-2018-0024>
- Lyu, G., Chen, L., & Huo, B. (2019b). The impact of logistics platforms and location on logistics resource integration and operational performance. *The International Journal of Logistics Management*, 30(2), 549–568. <https://doi.org/10.1108/IJLM-02-2018-0048>
- Morgan, R. M., & Hunt, S. (1999). Relationship-based competitive advantage: The role of relationship marketing in marketing strategy. *Journal of Business Research*, 46(3), 281–290. [https://doi.org/10.1016/S0148-2963\(98\)00035-6](https://doi.org/10.1016/S0148-2963(98)00035-6)
- Olavarrieta, S., & Ellinger, A. E. (1997). Resource-based theory and strategic logistics research. *International Journal of Physical Distribution & Logistics Management*, 27(9/10), 559–587. <https://doi.org/10.1108/09600039710188594>
- Penrose, E. T. (2009). *The theory of the growth of the firm*. Oxford University Press.
- Shou, Y., Shao, J., & Chen, A. (2017). Relational resources and performance of Chinese third-party logistics providers. *International Journal of Physical Distribution & Logistics Management*, 47(9), 864–883. <https://doi.org/10.1108/IJPDLM-09-2016-0271>
- Srivastava, P., Srinivasan, M., & Iyer, K. N. S. (2015). Relational resource antecedents and operational outcome of supply chain collaboration: The role of environmental turbulence. *Transportation Journal*, 54(2), 240–274. <https://doi.org/10.5325/transportationj.54.2.0240>
- Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic Capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review*, 58(4), 13–35. <https://doi.org/10.1525/cmr.2016.58.4.13>
- Tran, Q., & Huang, D. (2022). Using PLS-SEM to analyze challenges hindering the success of green building projects in Vietnam. *Journal of Economics and Development*, 24(1), 47–64. <https://doi.org/10.1108/JED-04-2020-0033>
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Yang, C.-C., Marlow, P. B., & Lu, C.-S. (2009). Assessing resources, logistics service capabilities, innovation capabilities and the performance of container shipping services in Taiwan. *International Journal of Production Economics*, 122(1), 4–20. <https://doi.org/10.1016/j.ijpe.2009.03.016>
- Yang, C.-S., & Lirn, T.-C. (2017). Revisiting the resource-based view on logistics performance in the shipping industry. *International Journal of Physical Distribution & Logistics Management*, 47(9), 884–905. <https://doi.org/10.1108/IJPDLM-05-2017-0184>
- Zeng, A. Z., & Rossetti, C. (2003). Developing a framework for evaluating the logistics costs in global sourcing processes. *International Journal of Physical Distribution & Logistics Management*, 33(9), 785–803. <https://doi.org/10.1108/09600030310503334>
- Zhao, X., Lynch, J. G., Jr., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197–206. <https://doi.org/10.1086/651257>