

DOES PROACTIVE LOGISTICS MANAGEMENT ENHANCE BUSINESS MANAGEMENT?

Waiyawuththanapoom P., Vaiyavuth R., Tirastittam P., Zin S.S.,
Wongsanguan C., Aunyawong W.*

Abstract: This study aims to investigate the logistics awareness, logistics strategies, and logistics management on the business management and firm size moderating role among the relationships of logistics awareness, logistics strategies, logistics management, and business management of the logistic industry in Thailand. Thailand's logistics performance significantly improved in 2018, owing to the massive investment in transport infrastructure and relevant legal reforms. Current study investigates how the efficient logistics management will lead to efficient business management. Survey method was adopted to collect the data using questionnaire. The respondents were the employees of logistic companies in Thailand and were selected using simple random sampling. Smart-PLS was used to analyze data. The outcomes have indicated that logistics awareness, logistics strategies, and logistics management have a positive association with the business management of the logistics industry in Thailand. The findings also exposed that the firm size significantly moderates among the associations of logistics awareness, logistics strategies, logistics management, and business management of the logistic industry in Thailand. These outcomes provide the guidelines for new researchers while investigating this area in the future and also provide the guidelines for the policymakers while making policies regarding effective business management of logistic organizations.

Keywords: logistics awareness, logistics strategies, logistics management, firm size, business management.

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Introduction

Business management is a growing subject that emphasized economic activities. Mainly, the global economy shifts the paradigm of businesses to realize the importance of supply chain as well as logistic management. In the competitive

* **Phutthiwat Waiyawuththanapoom**, College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Thailand, **Ronnakorn Vaiyavuth**, Chulalongkorn School of Integrated Innovation, Chulalongkorn University, Thailand, **Pimploi Tirastittam**, College of Innovation and Management, Suan Sunandha Rajabhat University, Thailand, **Swe Swe Zin**, Myanmar Maritime University, Myanmar **Chalat Wongsanguan**, SCG Logistics Management, Thailand, **Wissawa Aunyawong**, College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Thailand,

✉corresponding author: phutthiwat.wa@ssru.ac.th

✉ronnakornv@chula.ac.th;pimploi.ti@ssru.ac.th;chalatw@scg.com;
wissawa.au@ssru.ac.th

environment and businesses, the practices of logistic management are widely used for the handling and transportation of products to markets. There are many determinants in the markets that are used to assess the performance of the business (Wong & Tang, 2018). Therefore, logistic management is a growing concern for organizations and logistic enterprises that improves business management. Along with that, the firm size also deeply impacts the logistic management because a reasonable design of firm size according to business could be more beneficial. In the 1980s, the initiatives taken for the logistic enterprises were typically passive and temporary in response to the regulations of governments. However, manufacturing, textile, and many other concerns were unable to meet the requirements for transportation and delivery. Therefore, the positive contribution of logistic enterprises has not only reduced the cost of the supply chain but also placed the efficiency of in-time dealing. It is more dependent on the firm size to make feasible policies for the logistic enterprises that are contributing more revenues for the business management in Thailand (Pinmongkhonkul, Khamkhunmuang, & Madhayamapurush, 2021).

Many previous studies has had taken other concerns to meet the performance of business management which has left numerous gaps. Therefore, in this study, Thailand is taken as a destination along with logistic enterprises to address the positive contribution in business management. Logistic enterprises are highly dependent on the policies developed by business management and firm size is an important factor that provides feasibilities among them (Doktoralina & Apollo, 2019). The supply chain is properly managed through the logistic enterprises. Most of the process of transportation and delivery is dependent on logistic management that positively helps to sustain the business management. Logistic enterprises have positively integrated significant thought in business management to improve performance. Therefore, various ways are adopted in Thailand to upgrade business management by taking appropriate firm size. It is clear that inappropriate firm size is always risky to the business performance. Both the logistic services and business management is dependent on the firm size that is the main contributor of performance through various ways (Brawn & Šević, 2018). Although the supply chain is directly linked with business management and logistic services the ultimate responsibility always lies in logistic management (Vo & Ngo, 2021).

Thailand majorly invested most of its revenues in transport infrastructure and the maintainability of logistic enterprises. That aimed to cut the cost of Thailand logistics up to 12% by GDP by 2021 from 14% since 2016. Thailand logistic enterprises were hitting approximately at 3-4% in 2015 whereas Vietnam was rising at 7%. Therefore, certain economic models took Thailand's **logistics** enterprises and market at 61.87 billion dollars in 2020 that depicts a high jump. 80% of the domestic transport is dependent on logistic services and 100 billion dollars is expected by 2026 which is a 40% increment than 2020. Logistic costs to the GDP of Thailand are considerably decreased since 2015 rating 13.9% in 2015, 13.8% in 2016, 13.6% in 2017, and 13.5% in 2018 and 2019 respectively. In 2019, the logistic costs were trending at

2.26 Trillion Baht which is 13.4% of nominal GDP while freight transport was at 9.47 hundred million tons. On the other hand, logistic costs were reduced from 12.9% to 13.4% in 2020 after the proper investment in logistic enterprises (Zhuo & Salleh, 2021).

It is understood that logistic management is the main factor in business management and on the other hand green logistic management is also influential. Therefore, the logistic enterprises are analyzed through different ways and tactics. To achieve a higher level of performance and high targets logistic enterprises of Thailand plays a vital role in business management. Various factors are important in business management that disrupt business management if there is certainty in gaps. The supply chain is one of the major factors which could be disruptive if the logistic enterprises do not exist. Therefore, logistic enterprises contribute various positive integrations in the business management if the element of firm size is also correct. It is further primarily important for the logistic enterprises of Thailand to contribute significant factors in business management to attain various benefits. The research objective of this investigation is, 1) to analyze logistic awareness and its impact on the business management in logistic enterprises of Thailand, 2) to investigate the impact of logistic strategies on the business management in logistic enterprises of Thailand, 3) to analyze logistic management and its influence on the business management in logistic enterprises of Thailand, 4) to examine the moderating effects of firm size on the relationship between logistic awareness, logistic strategies, logistic management, and business management (Abdeljaber et al., 2021).

Literature Review

In the business cooperative eras, businesses are assembled and functioned with many facilitators. Therefore, logistic management is considered the main facilitator in business management that supports businesses in many ways. Logistic management integrates its practices through the wide networks of handling products (Gudalov & Treshchenkov, 2020), storage, and transportation in Thailand. Y. Wang et al. (2019) examined the logistic awareness for collaboration of reliability and cost and time attributes to ascertain the attributes of logistics in business management and performance. For this purpose, the logistics aware MS collaboration optimisation LA-MSCO model is used by taking various logistic elements that show better performance with convergence and capability. Pu, Wang, and Chan (2020) analyzed the standards of e-logistics and its awareness that influences the performance of firms through supply chain development. For developing the adapting capabilities and alignments, the occupational exposure limits (OELS) model is used. The results show that enhancing the supply chain could positively impact financial and operational performance (Yu, Luo, Feng, & Liu, 2018). Phillips, Howard, Vaaler, and Hubbard (2019) emphasized the potential of integration standards among the business management using various methods. This asserts proper involvement of business management programs and logistic awareness not only in educational standards but also in the businesses. Considerably, the involvement of business

management courses and proper utilization of firm size could uplift the businesses (Tomteberget & Larsson, 2020).

H1: Logistics awareness significantly and positively influences business management.

The facility of logistic management positively contributes supply chain system in the business and improves business management (Sodhi & Tang, 2021). While considering the logistic management as deem need, it has plenty of benefits to the business management of Thailand logistic enterprises. The consistency in logistic management and innovation in it could also uplift the business progress. Y.-Y. Wang and Li (2018) investigated the margins which are lower due to a lack of significant platform adaptations. Logistic enterprises play a vital role by using various denominators to increase business management. The study shows the positive role of logistic elements among the manufacturers decreasing the growth of third-party commissions. For this purpose, various models have been used to interpret the role of logistic influences (Sodhi & Tang, 2021). The study suggests the environmental performance of an organization requires proper distribution practices of logistics.

H2: Logistics strategies significantly and positively influence business management.

The involvement of logistics in any business also highlights as the main determinant toward the performance of the business. Increasing issues of environment and other various ways could also be covered by significant logistic support. Among the logistic enterprises, Thailand is seen as a major user of logistic support for its businesses. Adebimpe and Adeoye (2021) investigated the practices and knowledge of logistic management systems among the workers of Nigeria. Randomly 180 workers dimensions have been selected while using descriptive approaches and a wide range of logistic variables. Study shows that semi-structured and self-administered logistics management system is better for business systems. C. Liu, Feng, Lin, Wu, and Guo (2020) proposed the innovation of the internet for e-commerce business where logistic management is an intelligent approach. Various machine learning techniques have been used using simultaneous elements of logistic management. This shows that a new generation of logistic models positively integrates new opportunities for entrepreneurs. Peršič, Markič, and Peršič (2018) analyzed the standards of socially responsible management and some sustainable development initiatives. These initiatives are prominent in helping to increase the business's performance while using various logarithm approaches. The study stated the positive impact of facilitating elements for productivity as well as business growth.

H3: Logistics management significantly and positively influences business management.

(Duke & Osim, 2020) The rapid use of logistic management in the world has also introduced various international standards. These standards had positively improved the logistic system integration among logistic enterprises of Thailand. This integration of logistic management has also extracted many positive values that have had positive and significant enhancement in business performance. In addition, van

Lieshout, Bennett, and Smith (2021) analyzed the prominence of the firm size that plays a significant role among businesses. The study evaluates the coverage of firm size with various factors where the firm size induces moderating role among them. Results prove the benefits of the firm size that demonstrate the dominant impact of firm size among businesses and enterprises of logistics. Lau, Lu, and Weng (2021) examined the awareness of preventive behaviors that are organized by logistic management awareness. Some structural equation modeling and factor analysis show the dominant influence of logistic awareness in the firms with the perception of safety and awareness. Gesell, Glas, and Essig (2018) stated the existence of knowledge and concepts of management among business-to-business communication. For this purpose, a wide range of logistic awareness structures have been used that states the role of management and practices to increase business management. J. Choi and Lee (2018) investigated that firm size is significantly linked with research and development in business management. The prominent role of firm size states its moderating effect among the logistic as well as business performance.

H4: Firm size significantly and positively moderates the relationship between logistics awareness and business management.

Logistic management is a considerably young but increasing and evolving subject around the world. This is a great awareness toward the corporate sectors to tackle their unstable movements of business networks, especially in Thailand. Due to the evolving logistic management, many businesses had integrated and introduced various positive practices of logistics for increasing their business performance. Y. S. Lee (2021) analyzed the pattern of business environment and entrepreneurs where the distribution of social capital and laborer skills are represented. Aggregates of income are usually dependent on the firm size where the firm size is highly influential toward the business management. Chhetri, Nkhoma, Peszynski, Chhetri, and Lee (2018) developed the strategic policy of global logistics in many countries of Asia. For this purpose, various methods are used taking numerous factors of logistic management that show the positive impact of logistic strategies over business management. Ajibade and Mutula (2019) examined the importance of management factors that contributes a significant approach to increase business management. Different methodologies are designed using management elements that integrate and promote efficient business management. G. J. Lee (2020) investigated and extended the effects of development and training in business management where firm size is important. Effective firm size positive contributes significant impact on the business management as well as on logistic strategies.

H5: Firm size significantly and positively moderates the relationship between logistics strategies and business management.

(Bayshulakova & Dubovtsev, 2020)A considerable question of adapting more significant logistic practices has been limelight among the business practices. Various business concerns are emphasizing the logistic management in their business by considering this as a network manager. In the manufacturing concerns,

the logistic enterprises are proactive elements that is supporting and facilitating business performance (Y.-Y. Wang & Li, 2018). Li, Zhong, Guan, Zhou, and Li (2020) assessed the impact of innovation on the firm's efficiency located in various clusters. Using the DAE models numerous firms have been used taking the management elements as well as firm size. Firm size positive introduces moderating impact on the business as well as logistic management. Nair and Blomquist (2019) examined the value creation in business management with supporting systems. Different scalable models are used using the management and logistic variables that support business management. The study reveals that, for failure prevention in management, the logistic approaches induce positive contribution in the business management. Kallmuenzer and Peters (2018) investigated the utilization of oriental performance for the influence on the organization behaviors. For this purpose, various firms have been elected using numerous models. Results show that firm size plays a vital role with a dominant impact on business performance.

H6: Firm size significantly and positively moderates the relationship between logistics management and business management.

Research Methods

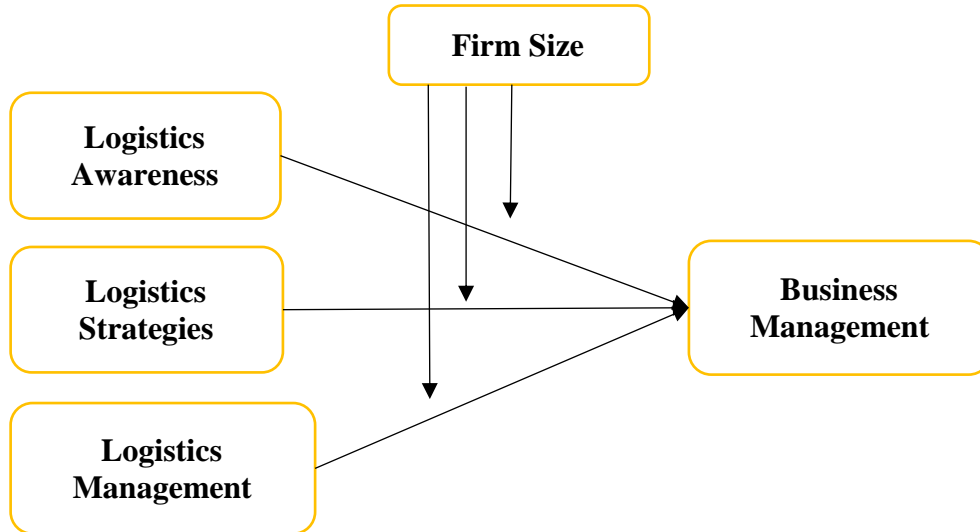
This research examines the role of logistics awareness, logistics strategies, and logistics management on business management and investigates the moderating role of firm size among the relationships of logistics awareness, logistics strategies, logistics management, and business management of the logistic industry in Thailand. The researchers collected the primary data using the questionnaires. The questionnaire was five-point Likert scale. The items of firm size were adapted from Bagozzi, Verbeke, and Gavino Jr (2003) such as “firm generate high level of sales, firm produces sales with long-term profitability.” Moreover, the items of logistic management were adapted from Irma Becerra-Fernandez (2001) such as “You are satisfied with the availability of logistics, for your tasks” and “You are satisfied with the management of logistics you need”. Additionally, the items of business management were adapted from Green, Welsh, and Dehler (2003) such as “To what extent is your boss exerting pressure on you to obtain results on this project”. The items of logistic management were adapted from Huang, Wang, and Seidmann (2007) such as “use of logistic repository increase productivity, I find logistic repository useful”. In the end, the items of logistic strategy were adapted from Grover, Cheon, and Teng (1996) such as “We have enhanced our logistic competence, We have increased control of logistic expenses”.

The respondents were the employees of logistic companies in Thailand and were selected using simple random sampling. The researchers have used the personal visit and mail methods to forward the surveys to the respondents. A total of 560 surveys were distributed, and after a month, only 295 were received and represented the response rate of around 52.68 percent.

As far as profile of the respondents is concern, 68% of the respondents were male whereas 32% were female. On the other hand, 24% of the respondents were between

the age of 18 years to 30 years, 57% of the respondents had the age between 30 to 40 years whereas 19% had the age more than 40 years.

The researchers have adopted the business management (BM) as the dependent variable with ten items and taken the firm size (FS) as the moderating variable with seven items. In addition, the researchers also took three predictors such as logistics awareness (LA) with six items, logistics strategies (LS) with nine items, and logistics management (LM) with six items (Y. Choi & Zhang, 2011). Figure 1 given below highlighted these constructs. Moreover, the smart-PLS was used to analyze data by the researchers because it is an effective tool that provides the best estimations in a complex framework and large data sets (R. Liu, 2021).



Findings

Table 1 given below shows the convergent validity that exposed the nexus among the items. The figures indicated that AVE values are bigger than 0.50, Alpha values are larger than 0.70, factor loadings are more than 0.50, and composite reliability (CR) values are not less than 0.70. These values indicated a high nexus among items and valid convergent validity.

Table 1. Convergent validity

Constructs	Items	Loadings	Alpha	CR	AVE
Business Management	BM1	0.588	0.890	0.913	0.570
	BM10	0.794			
	BM2	0.797			
	BM4	0.793			
	BM6	0.646			
	BM7	0.808			
	BM8	0.794			

Firm Size	BM9	0.788			
	FS1	0.953	0.959	0.968	0.834
	FS3	0.829			
	FS4	0.952			
	FS5	0.954			
	FS6	0.827			
	FS7	0.954			
Logistics Awareness	LA1	0.834	0.893	0.919	0.655
	LA2	0.856			
	LA3	0.699			
	LA4	0.763			
	LA5	0.835			
	LA6	0.856			
Logistics Management	LM2	0.861	0.922	0.941	0.762
	LM3	0.872			
	LM4	0.880			
	LM5	0.886			
	LM6	0.864			
	Logistics Strategies'	LS1	0.930	0.975	0.979
LS2		0.946			
LS3		0.936			
LS4		0.940			
LS5		0.944			
LS8		0.901			
LS9		0.936			

Table 2 given below has shown the discriminant validity that exposed the nexus among the variables. The researchers have used the Heterotrait Monotrait (HTMT) ratio to test the discriminant validity. The figures indicated that HTMT values are lower than 0.90. These values indicated the low nexus among variables and valid discriminant validity.

Table 2. Discriminant validity

	BM	FS	LA	LM
BM				
FS	0.535			
LA	0.559	0.886		
LM	0.427	0.400	0.468	
LS	0.504	0.514	0.528	0.437

Table 3 has shown the path analysis outcomes that indicated that logistics awareness, logistics strategies, and logistics management have a positive and significant association with the logistic industry's business management in Thailand and accepts H1, H2, and H3.

Table 3. Direct path

Relationships	Original Sample	Standard Deviation	T Statistics	P Values
FS -> BM	0.156	0.073	2.140	0.017
LA -> BM	0.263	0.087	3.008	0.002
LM -> BM	0.226	0.069	3.262	0.001
LS -> BM	0.106	0.080	1.311	0.096

Table 4 shows the path analysis findings and exposed that the firm size significantly moderates among the associations of logistics awareness, logistics strategies, logistics management, and business management of logistic Industry in Thailand and accepts H4, H5, and H6.

Table 4. Indirect path

Relationships	Original Sample	Standard Deviation	T Statistics	P Values
LA*FS -> BM	0.118	0.068	1.736	0.043
LM*FS -> BM	0.167	0.055	3.019	0.002
LS*FS -> BM	-0.327	0.063	5.219	0.000

Discussions and Conclusion

The study results have indicated that logistics awareness has a positive association with business management. These results are in line with the previous study of Wahab, Bahar, and Radzi (2021) according to which the logistics play a key role in the performance of business functions as they help in transferring the goods, people, or resources, and they may also help to create a communication network. The awareness of logistics about its quality, variety, uses, and easy availability enables the management to choose logistics for better performing business processes, including procurement, advertisement, marketing, and communication. The study results have also revealed that the logistics strategies are in a positive association with business management. The study findings are supported by the past study of Julianelli, Caiado, Scavarda, and Cruz (2020), which shows that the execution of logistics strategies defines how to sort out the best logistics service providers, to acquire the fast, energy-efficient, and less irritating logistics, and how to manage the logistics are really very helpful for the business manager to administer the different functions of the business. The results have revealed that logistics management is positively linked with business management. These results are in line with the past study of Abbas (2018), which suggests that for agility in production and marketing of goods and services, transportation of required resources and delivery of finished goods in the market is necessary, the effective logistics management is useful to manage the business processes like production and marketing (Yang, DaI, & Miao, 2021).

The study results have also indicated that firm size is a moderator between logistics awareness and business management. These results are also supported by the past study of Wudhikarn, Chakpitak, and Neubert (2018), which states that it is the

financial worth of the organization which enables the organization to use effective information technology or information channels that creates logistics awareness and financial strength also assists in carrying on the business processes efficiently. It has also been shown by the study results that the firm size is a moderator between the logistics strategies and business management. These results are approved by the past study of Agyabeng-Mensah, Afum, and Ahenkorah (2020), which reveals that the firm size determines the ability of the firm to form and implement the logistics strategies and effective administration of functioning in all departments. Thus, the large firm size improves the effects of logistics strategies on business management. The study results have also indicated that firm size is a moderator between logistics management and business management. These results are supported by the past study of C. Liu et al. (2020), according to which the large firm size helps both logistics management and business management and thus, improves the contribution of effective logistics management in better administrating the business processes.

The current study was aimed to be presented for the exploration of the influences of awareness of logistics, logistics related strategies, and logistics management on the effectiveness of business management and linking role of firm size between awareness of logistics, logistics related strategies, and logistics management on the effectiveness of business management. This study made empirical analysis in the economy of Thailand to collect data about the influences of awareness of logistics, logistics-related strategies, and logistics management, the firm size on the effectiveness of business management. The results of the study showed that as for applying good quality logistics in the business operation and making improvements in the existing logistics knowledge about the logistics is needed, the logistics awareness helps to manage business processes. The results also showed that the execution of the strategies designed for the logistics from acquisition to usage at different levels creates agility and quality improvement in the business processes. The business processes which cannot be carried out without the logistics services can better be managed if the logistics management is good. The study concluded that enlarged firm size improves the contribution of awareness of logistics, logistics-related strategies, and logistics management in the effectiveness of business management.

The current study has both theoretical and empirical implications. The study has great theoretical significance on account of its excellent addition to economic-based literature. This article gives a description of logistics' importance in business operations at different levels. It examines the influences of the awareness of logistics, logistics-related strategies, and logistics management on the effectiveness of business management which is a great contribution to literature as the first time so much detail has been given to logistics. The study examines the moderating influences of firm size on the association between awareness of logistics, logistics related strategies, and logistics management and the effectiveness of business management, which is something new in the literature because, prior to this literary effort, a little attention has been given to firm size as a moderator between the above-

mentioned variables. Moreover, this study is very significant to the businesses operating in Thailand or related economies for it provides a guideline to the business managers on how they carry business activities efficiently. It is highlighted by the study that business management can be effective if they have better logistics awareness, form and implement logistics strategies in a better manner, and logistics management is also effective.

This study has certain limitations which should be removed by the authors in the future to make it more valid. The study analyzes the role of only logistics-related variables like awareness of logistics, logistics-related strategies, and logistics management in getting the effectiveness of business management. The more significant factors like organization climate, organizational capabilities, and human resource quality can be contributing to the effectiveness of business management. Thus, future authors are asked to focus on these factors along with awareness of logistics, logistics-related strategies, and logistics management while analyzing the effectiveness of business management. Moreover, the supportive data about awareness of logistics, logistics-related strategies, and logistics management, firm size, and business management has been acquired collected applying a single source. Thus, the work is less comprehensive and less valid. Future researchers must collect the required data from multiple sources for enhanced validity.

References

- Abbas, H., (2018). Barriers to reverse logistics practices in pharmaceutical supply chains: an ISM approach. *International Journal of Business Excellence*, 16(1), 47-60.
- Abdeljaber, O., Al-masaeed, S., Azam, S. M. F., Ab Yajid, M. S., Alsoud, A. R. and Johar, M. G. M., (2021). The role of Trade Integration and Cross-Border Entrepreneurship in International Relations: A moderating role of IT Infrastructure. *Croatian International Relations Review*, 27(87), 63-94.
- Adebimpe, W. O., Adeoye, O. A., (2021). Knowledge and practice of vaccination logistics management among primary health care workers in Nigeria. *Human Vaccines & Immunotherapeutics*, 17(5), 1490-1495.
- Agyabeng-Mensah, Y., Afum, E. and Ahenkorah, E., (2020). Exploring financial performance and green logistics management practices: examining the mediating influences of market, environmental and social performances. *Journal of Cleaner Production*, 258, 120613.
- Ajibade, P., Mutula, S. M., (2019). Integrated Records Management: Using Software Design Approach to Support Business Process Management and Compliance in the Networked Environment. *New Review of Information Networking*, 24(2), 178-192.
- Bagozzi, R. P., Verbeke, W. and Gavino Jr, J. C., (2003). Culture moderates the self-regulation of shame and its effects on performance: the case of salespersons in The Netherlands and the Philippines. *Journal of applied psychology*, 88(2), 219.
- Bayshulakova, D., Dubovtsev, G., (2020). Sco activities at the present stage and the interests of the central asian countries. *Central Asia and the Caucasus*, 21(3), 7-14.
- Brawn, D. A., Šević, A., (2018). Firm size matters: Industry sector, firm age and volatility do too in determining which publicly-listed US firms pay a dividend. *International Review of Financial Analysis*, 58, 132-152.

- Chhetri, P., Nkhoma, M., Peszynski, K., Chhetri, A. and Lee, P. T.-W., (2018). Global logistics city concept: a cluster-led strategy under the belt and road initiative. *Maritime Policy & Management*, 45(3), 319-335.
- Choi, J., Lee, J., (2018). Firm size and compositions of R&D expenditures: evidence from a panel of R&D performing manufacturing firms. *Industry and Innovation*, 25(5), 459-481.
- Choi, Y., Zhang, N., (2011). Does proactive green logistics management improve business performance? A case of Chinese logistics enterprises. *African Journal of Business Management*, 5(17), 7564-7574.
- Doktoralina, C., Apollo, A., (2019). The contribution of strategic management accounting in supply chain outcomes and logistic firm profitability. *Uncertain Supply Chain Management*, 7(2), 145-156.
- Duke, E. O., Osim, S. E., (2020). The culture of slavery in traditional context and globalised society. *socialspacejournal. eu*, 23(4), 145-165.
- Gesell, C., Glas, A. H. and Essig, M., (2018). Business-to-Business communication in a dynamic environment: A systematic adductive analysis referring to ramp-up management. *Journal of Business-to-Business Marketing*, 25(4), 339-355.
- Green, S. G., Welsh, M. A. and Dehler, G. E., (2003). Advocacy, performance, and threshold influences on decisions to terminate new product development. *Academy of management journal*, 46(4), 419-434.
- Grover, V., Cheon, M. J. and Teng, J. T., (1996). The effect of service quality and partnership on the outsourcing of information systems functions. *Journal of management information systems*, 12(4), 89-116.
- Gudalov, N. N., Treshchenkov, E. Y., (2020). The Resilience of the EU Neighbours to the South and to the East: A Comparative Analysis. *Croatian International Relations Review*, 26(86), 6-41.
- Huang, M.-H., Wang, E. T. and Seidmann, A., (2007). Price mechanism for knowledge transfer: An integrative theory. *Journal of management information systems*, 24(3), 79-108.
- Irma Becerra-Fernandez, R. S., (2001). Organizational knowledge management: A contingency perspective. *Journal of management information systems*, 18(1), 23-55.
- Julianelli, V., Caiado, R. G. G., Scavarda, L. F. and Cruz, S. P. d. M. F., (2020). Interplay between reverse logistics and circular economy: critical success factors-based taxonomy and framework. *Resources, Conservation and Recycling*, 158, 104784.
- Kallmuenzer, A., Peters, M., (2018). Entrepreneurial behaviour, firm size and financial performance: the case of rural tourism family firms. *Tourism Recreation Research*, 43(1), 2-14.
- Lau, Y.-y., Lu, C.-S. and Weng, H.-K., (2021). The effects of safety delivery and safety awareness on passenger behaviour in the ferry context. *Maritime Policy & Management*, 48(1), 46-60.
- Lee, G. J., (2020). Employee training and development as an antecedent of firm customer capabilities: Longitudinal moderation by firm size and market type. *Journal of African Business*, 21(4), 462-475.
- Lee, Y. S., (2021). Entrepreneurs, Managers, and the Firm Size Distribution. *International Economic Journal*, 35(3), 367-390.
- Li, Y., Zhong, Z., Guan, J., Zhou, J. and Li, J., (2020). Firm size affecting efficiency of production and commercialization of knowledge: embedded in cluster development. *Asian Journal of Technology Innovation*, 28(1), 94-118.

- Liu, C., Feng, Y., Lin, D., Wu, L. and Guo, M., (2020). Iot based laundry services: an application of big data analytics, intelligent logistics management, and machine learning techniques. *International Journal of Production Research*, 58(17), 5113-5131.
- Liu, R., (2021). Research and Analysis of Ball Sports Learning in Inspiring and Aiding Students' Diversification Education. *Revista de Psicología del Deporte (Journal of Sport Psychology)*, 30(2), 67-80.
- Nair, S., Blomquist, T., (2019). Failure prevention and management in business incubation: practices towards a scalable business model. *Technology Analysis & Strategic Management*, 31(3), 266-278.
- Peršič, A., Markič, M. and Peršič, M., (2018). The impact of socially responsible management standards on the business success of an organisation. *Total Quality Management & Business Excellence*, 29(1-2), 225-237.
- Phillips, M., Howard, H., Vaaler, A. and Hubbard, D. E., (2019). Mapping industry standards and integration opportunities in business management curricula. *Journal of Business & Finance Librarianship*, 24(1-2), 17-29.
- Pinmongkhonkul, S., Khamkhunmuang, T. and Madhayamapurush, W., (2021). Ethnobotanical Study and Plant Dimension Classification in Kwan Phayao Community Areas, Phayao Province, Thailand. *AgBioForum*, 23(1), 65-71.
- Pu, X., Wang, Z. and Chan, F. T. S., (2020). Leveraging Open E-Logistic Standards to Achieve Ambidexterity in Supply Chain. *Journal of Computer Information Systems*, 60(4), 347-358.
- Sodhi, M. S., Tang, C. S., (2021). Supply chain management for extreme conditions: Research opportunities. *Journal of Supply Chain Management*, 57(1), 7-16.
- Tomteberget, D. T., Larsson, G., (2020). Interrelationship of daily uplifts, daily hassles, coping strategies and stress reactions over time among Norwegian military veterans. *Res Militaris*, 10(2), 1-21.
- van Lieshout, C., Bennett, R. J. and Smith, H., (2021). The British business census of entrepreneurs and firm-size, 1851–1881: New data for economic and business historians. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 54(3), 129-150.
- Vo, P. H., Ngo, T. Q., (2021). The Role of Agricultural Financing and Development on Sustainability: Evidence from ASEAN Countries. *AgBioForum*, 23(1), 22-31.
- Wahab, S. N., Bahar, N. and Radzi, N. A. M., (2021). An inquiry on knowledge management in third-party logistics companies. *International Journal of Business Innovation and Research*, 24(1), 124-146.
- Wang, Y.-Y., Li, J., (2018). Research on pricing, service and logistic decision-making of E-supply chain with 'Free Shipping' strategy. *Journal of Control and Decision*, 5(4), 319-337.
- Wang, Y., Zhang, Y., Tao, F., Chen, T., Cheng, Y. and Yang, S., (2019). Logistics-aware manufacturing service collaboration optimisation towards industrial internet platform. *International Journal of Production Research*, 57(12), 4007-4026.
- Wong, W. P., Tang, C. F., (2018). The major determinants of logistic performance in a global perspective: evidence from panel data analysis. *International Journal of Logistics Research and Applications*, 21(4), 431-443.
- Wudhikarn, R., Chakpitak, N. and Neubert, G., (2018). A literature review on performance measures of logistics management: an intellectual capital perspective. *International Journal of Production Research*, 56(13), 4490-4520.

- Yang, X., DaI, B. and Miao, Y., (2021). Dimensions of Coach Work Passion and Sportsman Performance: An Empirical Study on Psychological Attributes of Athletes in China. *Revista de Psicología del Deporte (Journal of Sport Psychology)*, 30(1), 162-175.
- Yu, K., Luo, B. N., Feng, X. and Liu, J., (2018). Supply chain information integration, flexibility, and operational performance: An archival search and content analysis. *The International Journal of Logistics Management*.
- Zhuo, W. X., Salleh, S. H., (2021). The Impact of Urbanization on Food Production and Residential Land Disputes (A Global Perspective). *AgBioForum*, 23(1), 42-55.

CZY PROAKTYWNE ZARZĄDZANIE LOGISTYKĄ WZMACNIA ZARZĄDZANIE BIZNESEM?

Streszczenie: Niniejsze badanie ma na celu zbadanie świadomości logistycznej, strategii logistycznych i zarządzania logistyką w zakresie zarządzania przedsiębiorstwem i moderowania wielkości firmy w relacjach między świadomością logistyczną, strategiami logistycznymi, zarządzaniem logistyką i zarządzaniem biznesowym w branży logistycznej w Tajlandii. Wydajność logistyczna Tajlandii uległa znacznej poprawie w 2018 r. dzięki ogromnym inwestycjom w infrastrukturę transportową i odpowiednim reformom prawnym. Aktualne badanie ma na celu zbadanie, w jaki sposób efektywne zarządzanie logistyką doprowadzi do efektywnego zarządzania biznesem. Do zbierania danych przyjęto metodę ankietową za pomocą kwestionariusza. Respondenci byli pracownikami firm logistycznych w Tajlandii i zostali wyłonieni za pomocą prostego doboru losowego. Do analizy danych wykorzystano Smart-PLS. Wyniki wskazują, że świadomość logistyczna, strategie logistyczne i zarządzanie logistyką mają pozytywny związek z zarządzaniem biznesowym w branży logistycznej w Tajlandii. Ustalenia ujawniły również, że wielkość firmy znacznie moderuje wśród powiązań świadomości logistycznej, strategii logistycznych, zarządzania logistyką i zarządzania biznesem w branży logistycznej w Tajlandii. Wyniki te dostarczają wskazówek dla nowych badaczy podczas badania tego obszaru w przyszłości, a także dostarczają wskazówek dla decydentów podczas tworzenia polityk dotyczących skutecznego zarządzania biznesowego w organizacjach logistycznych.

Słowa kluczowe: świadomość logistyczna, strategie logistyczne, zarządzanie logistyczne, wielkość firmy, zarządzanie przedsiębiorstwem

主动式物流管理是否增强了业务管理？

摘要：本研究旨在探讨物流意识、物流战略和物流管理对泰国物流业的物流意识、物流战略、物流管理和企业管理之间的关系的企业管理和企业规模调节作用。由于对交通基础设施的大量投资和相关的法律改革，泰国的物流绩效在 2018 年显着改善。当前的研究调查了高效的物流管理将如何导致高效的业务管理。采用问卷调查的方法收集数据。受访者是泰国物流公司的员工，采用简单随机抽样的方式选出。Smart-PLS 用于分析数据。结果表明，物流意识、物流战略和物流管理与泰国物流业的经营管理呈正相关。调查结果还表明，公司规模在泰国物流业的物流意识、物流战略、物流管理和业务管理的关联中显着缓和。这些结果为新的研究人员在未来调查这一领域提供了指导，也为决策者在制定有关物流组织有效业务管理的政策时提供了指导。

关键词：物流意识，物流战略，物流管理，企业规模，企业管理。