High Performance Organization: A Case Study of the Logistics Industry in Thailand

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Abstract

This research aimed to analyze the key factors affecting High Performance Organizations (HPO) using a case study of the logistics industry in Thailand by studying the relationship between High Performance Work Systems (HPWS) and the High Performing Organization (HPO) of the logistics industry in Thailand, using a mixed methods research model with a combination of both quantitative and qualitative methods of research in both data collection and analysis. Quantitative research was used to analyze with the structural equation analysis method. The questionnaire was used as a research instrument, using a 5-level Likert assessment scale. The sample group was 260 companies (Third Party Logistics Service Provider: 3PLs) which are leading and reputable companies in the logistics industry of Thailand, developed by the Department of Business Development and had received ISO 9001 certification. The qualitative research was conducted by using an in-depth interview method with the executive members of the logistics service provider type 3PLs of four companies selected for the company's readiness to cooperate and provide information in the interview. Data and statistics analysis using descriptive statistics included percentage, average, and standard deviation. Statistical software (SPSS) was used for descriptive statistics and analysis by inferential statistics used statistical software (AMOS); two solutions were to analyze the survey by using Exploratory Factor Analysis (EFA) and Path Analysis (PA). From the results of the research, it can be concluded that the High Performance Work System (HPWS) is significantly and positively related to the achievement of a High Performance Organization (HPO) of the logistics industry in Thailand, consisting of three sub-factors: 1) social system factors as people; 2) technical system factors as work process; and 3) supporting system factors using information technology. There were direct and indirect influences on the high performance organization, and it was also found that the social system subfactors (people) had the greatest influence on management systems in the high performance organization of the logistics industry in Thailand. The overall component weight of 0.738 was a result of all indirect influences, followed by the technical system factors as work process with an element weight value of 0.410 and the supporting system factors using information technology to influence high performance organizations which influenced in the opposite direction with the element weight value of -0.361. This study contributes to the enrichment of the literature on the HPWS and HPO by proposing a model that was empirically tested on the validity and reliability in predicting a High Performance Organization (HPO).

Keywords: High Performance Organization (HPO), High Performance Work Systems (HPWS), Logistics Industry

Introduction

The government has put logistics on the national agenda. Under the national strategic framework for building competitiveness, which is part of the Twenty-Year National Strategy Plan (2018-2037) which aims to accomplish the goal of moving Thailand up to a high-income country within the next 20 years, continuing economic growth and increasing competitiveness will be required. Consequently, the National Strategy on Competitiveness Enhancement focused on three main concepts, namely: (1) learning from the past, (2) adjusting the present, and (3) creating new future values. In summary, the national strategy focuses on developing, enabling and supporting infrastructure, needed for the country's competitiveness enhancement, including physical infrastructure of transport networks, urban spaces, and technological and economic infrastructure in order to facilitate trades and services as well as to reduce logistics costs, promote improved mobility of capital and personnel, connect Thailand to the world, and prepare the country to be ready for anticipated future changes along

with the development of supporting factors, such as human resource development building a network of cooperation in the private sector with monitoring and evaluation of logistics system development. In the dimension of competitiveness of the organization to make the organization have higher potential for high performance, it is difficult for the organization to manage the flow of change resulting from both internal and external factors. Thus, various organizational management concepts have been created to help organizations manage change and strengthen the organization's ability to manage their work more efficiently and effectively.

Freight Overview: In 2019, total freight volumes of both domestic and international transport were 946,751 thousand tons, slightly reduced from 953,617 thousand tons in 2018, a 0.7% decrease. In particular, international freight transport volumes decreased at 3.6% while domestic freight volumes moderately rose at 0.9%. Due to the continuous growth of the logistics industry and businesses, value added logistics in 2019 is 486.7 billion baht increasing from 470.6 baht in 2018 or accounting for a 3.4% increase. This indicates that the development trend of logistics sectors focuses on inducing more effective responses to customer demand for just-in-time delivery services at reasonable prices in order to obtain customer satisfaction, to increase sales, and to gain profits leading to the increment of the national value added logistics (Office of the National Economic and Social Development Council, 2020).

In the current business environment, high performance is highly demanded among shareholders. Due to pressure, managers have been compelled to deliver quality output in order to achieve a competitive advantage with a minimum of resources. It is important to adapt ideas and practices from time to time since organizations and environments are continuously improving. Therefore, the organization will need to seek a form of organizational adaptability in terms of performance, coordination, and competition to accommodate the change. The ability to deliver quality products and services is critical for the sustainability of an organization in the long run, or it can be said that the organization must have the ability to survive and thrive, which is desirable for all organizations (Lorsuwannarat, 2009). The organization must have a clear strategy, employees of the organization are developed, and employees are aware of how to achieve the organization's goals. Results must be according to the goals continuously and focus needs to be on a continuous approach to improving customer quality (Bagorogoza & de Waal, 2010; Baker, Day, & Salas, 2006; de Waal, 2012; de Waal, Goedegebuure, & Tan Akaraborworn, 2014; Jamrog, Vickers, Overholt, & Morrison, 2008). The conceptual frameworks and factor measurements of human resource practices are established affecting performance results overall and organizational work and performance (Huselid & Becker, 1997) in the context of HR practices, such as a high performance work system.

Consequently, it makes the logistics business very competitive in the private sector. Therefore, the need to accelerate the development of a solid organization strengthened to prepare for the competition with foreign businesses can be seen from the trend of the organization. The organization will shift its focus to be a high performance organization with adjustments to the organizational structure and business structure work in a new way where the responsibility is given to each employee to be involved in each task. The whole process from start to finish; moreover, must also pay more attention to the development of employees' abilities and competencies to build immunity and competitiveness so as to lead an excellent organization, an organization that can compete and stays efficiently and sustainably also known as being a High Performance Organization performing (HPO).

This research realizes the importance of being a high performance organization of the logistics industry in Thailand because of the logistics service business. It is a business that the ASEAN Economic Community (AEC) has given priority to; it is one of the five areas of accelerated service liberalization under the framework of the

ASEAN Trade in Services Agreement and is a highly competitive business. Thus, this research uses the business of integrated logistics service 3PLs, which is a service provider covering two or more logistic activities. These businesses act as the population group in this research with 260 companies.

Objective

1. To analyze the key factors affecting a High Performance Organization (HPO): A case study of the logistics industry in Thailand.
2. To examine the relationship between High Performance Work Systems (HPWS) and the High Performance Organization (HPO) of the logistics industry in Thailand.

Literature Review

From studying and researching related concepts, theories, and research about enterprise features of High Performance Organization (HPO) to be used in this study, it was found that corporate performance is an organization that started out as an efficient organization. de Waal (2010; 2012) believes that the organization's performance relies on an effective system which consists of five factors: (1) management quality, (2) openness and action orientation, (3) long-term orientation, (4) continuous improvement and renewal, and (5) employee quality. The organization's performance provides the customer-centric or customer-focused focus for achieving high performance as noted by de Waal (2012) who researched and summarized the characteristics of the high performance organization. The HPO should have (1) strong financial results, (2) satisfied customers and employees, (3) high levels of individual initiative, (4) productivity and innovation, (5) aligned performance measurement and reward system, and (6) strong leadership. Similarly, high performing organizations should focus on leaders or have good leaders. Also, be concluded that being a high performing organization depends on the capabilities, roles, and characteristics of the management. The executive must (1) explain clearly to personnel and find suitable work for them, (2) facilitate things rather than giving orders, (3) be knowledgeable both as to work and outside of work, (4) encourage creativity, (5) report on performance to personnel regularly, (6) ensure management is frequently evaluated by personnel, (7) provide opportunities for personnel to give their opinions, (8) give opportunities and encourages free communication, (9) assist personnel in working regularly, and (10) be able to work as a team with people. And one of the main characteristics of a high performing organization is the presence of an effective strategic department and strategic management. As well, Buytendijk (2006) concluded that a high performance organization must set up the strategy and implementation through strategic focus and alignment, implementing the strategy to achieve so that the organization defines indicators of success at all levels to which a strategy is applied. Also, it is necessary to effectively organize information systems to link strategies and implement strategies to be more effective. More importantly, an organization must be ready to renew itself, adapt, change quickly, and succeed in a rapidly changing, ambiguous, turbulent environment (organizational agility). High Performance Organizations need to be adaptive, which requires four approaches, namely, (1) having an efficient information system, (2) standardization, (3) comprehensive channel control, and (4) use of a project management method. The more flexible the organization is and the faster it can adjust to inevitable industry changes, the better prepared it will be to win market share, improve organizational efficiency, and boost customer satisfaction and loyalty.

The Resource-Based View (RBV) of the firm explains how different resources influence firm performance. That is, successful and efficient application of organizational resources will facilitate a firm's competitive advantage (Barney, 1991). The RBV underpinned the framework of this study and explains the constructs in this study. The RBV was identified because it is the best suitable theoretical framework for addressing performance shortcomings. Also, it supports that rare, inimitable, non-substitutable resource capabilities that can present a highly competitive advantage for one organization over another organization. According to the RBV, the use of qualified employees who bring high skilled expertise may be compatible with cost reduction and innovation to access technical resources and knowledge outside the in-house firm capabilities. When properly planned and executed, firms that know intensive activities reduce innovation process obstacles and improve innovation performance (Gupta, Woodside, Dubelaar, & Bradmore, 2009).

Social Exchange Theory (SET) defines the employee-to-employer relationship using cooperative mutual benefits. All the human relationships are created by the use of a subjective cost-benefit analysis (Blau, 1964) and by demonstrating numerous resources that can be exchanged following specific rules and how such exchanges can create excellent performance relationships.

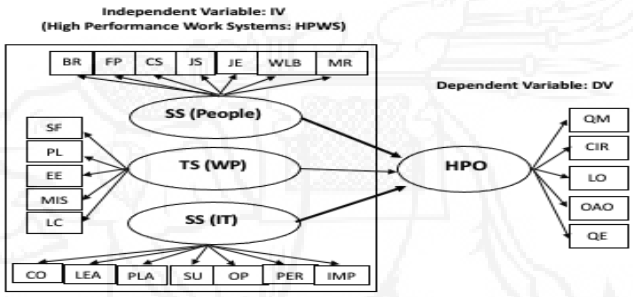

Figure 1 Research Framework.

As demonstrated in Figure 1, a critical review of previous studies, research questions, and objectives provided the basis to develop the framework for this study to establish the relationship between the variables. Firstly, the model demonstrated that the predicting variables, such as the HPWS (social system: people, technical system: work process, and supporting system: IT) have a direct influence on the outcome variable (HPO). Conclusively, this study is in line with the RBV and social exchange theory. The model above (Figure 1) represents the HPWS which encompasses three dimensions (social system, technical system, and supporting system). Hence, the above model proposes that the presence of the HPWS plays a great role in the achievement of the HPO.

Methods and Materials

Researchers present a mixed method by using both quantitative research and qualitative research, where quantitative research is the analysis of key factors. It involved the study and development of a causal model of factors affecting the High Performance Organization (HPO). A case study of the logistics industry in Thailand was carried out. The unit of analysis is like the population of organizations, namely organizations registered with the Department of Business Development, Ministry of Commerce which are logistics business operators in Thailand (Office of the National Economic and Social Development Council, 2020). The sample group of this quantitative research is 3PLs logistics service companies certificated and registered as a juristic act with the Department of

Business Development under the Ministry of Commerce and a member of the Thai Airfreight Forwarders Association (TAFA) of 260 companies with a defined sample used in the study of more than 200 samples, or 10-20 per 1 parameter as predictors (Kline, 2011; Hair, Black, Babin, & Anderson, 2010). All the items used in this study were made on a five-point Likert scale whereby 1 represents strongly disagree to 5 = strongly agree.

The sample size setting of Schumacker & Lomax (2010) and Anderson & Gerbing (1988) was used. The sample in the qualitative research is the senior management of the service logistics sector 3PLs for four companies (1 person per company) by using the purposive sampling method. The selection criteria are based on being a leading and reputable company in the logistics industry of Thailand, being a company that has been developed by the Department of Business Development and received ISO 9001 certification for the year 2019, being a company that has passed the logistics standard of the Department of Business Development, Ministry of Commerce and passed the logistics standards of Thailand (Logistics Scorecard: LSC) of the Bureau of Logistics Department of Primary Industries and Mines by relying on connections in interpersonal relationships.

Research Instrument/Setting, Validating and Reliability Finding

For the HPO-Dependent variable in this study, the HPO was operationalized as organizations that have achieved both financial and non-financial outcomes better than their competitors.

The quantitative research used de Waal & Tan Akaraborworn's High Performance Organizational Scale Questionnaire (2013) which was tested in joint research by de Waal et al. (2014) and can be used in Thai organizations to collect data from senior management to provide company-level information, divided into five parts: (1) General information of respondents, (2) High Performance Organization (HPO) 28 questions/5 factors, (3) High Performance Work Systems (HPWS) 34 questions/7 factors, (4) Logistics Scorecard (LSC) 23 questions/5 factors, and (5) Support by using Information Systems and Technology (IT) 22 questions/7 factors, using a 5-level Likert assessment scale (Sekaran & Bougie, 2013). The content validity was examined with an IOC value from 0.50 or more from 5 experts. The results of the analysis of the whole questionnaire were 60% or more, or the consistency was between 0.60-1.00, while the confidence examination was tried out on the sample group with the same characteristics as the sample, but not the sample of 300 companies. Survey data collection used both postal and online surveys.

Qualitative research, using the in-depth interviews with the senior management of the company, a provider of logistics 3PLs for four companies took about 30-60 minutes to take notes and record audio during the interview.

Data analysis and statistics used in data analysis using descriptive statistics included percentage, average, and standard deviation. Statistical software (SPSS) was used for descriptive statistics and analysis by inferential statistics used statistical software (AMOS); two solutions were to analyze the survey by using Exploratory Factor Analysis (EFA) and Path Analysis (PA).

Results

Part 1: Quantitative Analysis Results

Table 1 Demographic Information of the Sample Population

Information	TOT Sample Population (N = 260)	Percentage (%)
1. Gender		
Male	117	45.0
Female	143	55.0
2. Age (between 41-50 years)	228	87.7
3. Education (Master's degree)	236	90.8
4. Position (Director/Manager)	249	95.8
5. Duration in the Biz (20-25 years)	212	81.5
6. Permanent Employees (41-45 people)	169	65.0
7. Monthly Income (40,000-50,000 baht)	240	92.3

Table 2 Show Mean and Standard Deviation of Factors Affecting HPO

Opinion Levels	Mean	S.D.	Interpretation Results
1. HPO	4.11	0.230	Maximum
2. HPWS			
SSP	4.05	0.267	Maximum
TS	4.13	0.300	Maximum
SSI	4.07	0.294	Maximum

The opinion levels on the High Performance Organization (HPO) and the High Performance Work System (HPWS) of those in the HPO were overall at a high level with a mean of 4.11 and standard deviation of 0.230. According to the analysis of the study, the factors with the highest average level are continuous improvement and renewal, and internal processes are developed to be consistent and continuous.

Regarding the High Performance Work Systems (HPWS), it was found that the overall opinion level of the High Performance Work Systems (HPWS: SSP) was high with a mean of 4.05 and standard deviation of 0.267. Job enrichment was found to be statistically significant in predicting the HPO. The finding indicated that job enrichment is an important motivational element that can enhance organizational performance. This is important because through job enrichment, firms provide a good opportunity for employees to develop and get promoted, thereby maximizing employees job satisfaction, productivity, and product quality which subsequently boost the performance of the organization. The residual demonstrated consistency with past findings that giving employees job autonomy enhanced higher organizational performance, increased profitability, productivity, higher product quality, and higher employee satisfaction.

In terms of the technical system: work process, it was found that the opinions of the performance indicators and the overall logistics potential (TS) were at a high level, with a mean of 4.13 and standard deviation of 0.300; the highest mean was for setting strategy in the organization. The organization attaches great importance to strategic planning and strategy implementation.

In terms of supporting system: IT, by using information systems and technology, it was found that the opinions of various support by using information systems and technology (SSI) overall were at a high level with a mean of 4.07 and standard deviation of 0.294; the highest mean was for leadership where the top management places

importance on the information security management system and is documented along with communicating within the organization.

Factor Analysis (FA) and Structural Equation Modeling (SEM)

In this study, Exploratory Factor Analysis (EFA) was studied in order to extract the elements to suit the relationship of the factors of each extracted variable. Structural equations, in general principles, were used for checking the validity of the component model. That is a research hypothesis or an evaluation of the validity of a model's composition or the verification of the conformity between the component model and the empirical data according to the preliminary criteria. It can be displayed as follows:

Table 3 Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA)	Bartlett's Test of Sphericity	df	p-value	KMO
HPO	3690.880	351	0.000	0.790
HPWS				
Social System (SSP)	5655.729	561	0.000	0.866
Technical System (TS)	4418.221	276	0.000	0.893
Support System (SSI)	5109.163	378	0.000	0.913

Table 3 the Exploratory Factor Analysis (EFA) results showed that the observed variables were highly correlated. Since the index values were close to 0.80 and above, this indicates that the data were very suitable for factor analysis.

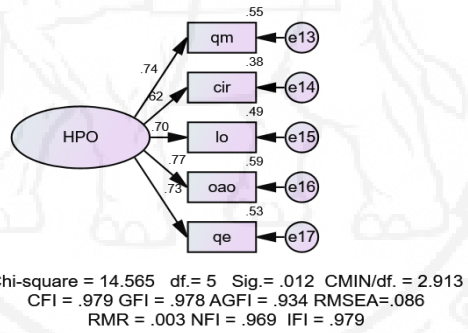

Figure 2 Confirmatory Factor Analysis (CFA) on HPO.

As demonstrated in Figure 2, the Confirmatory Factor Analysis (CFA) results for a High Performing Organization (HPO), consisting of five factors and a standardized element score from 0.62-0.77, means that the model was consistent with the empirical data to a good level. This can be determined from $X^2 = 14.565$, df = 5, RMSEA = 0.086, CFI = 0.819, NFI = 0.784, with the value of X^2 /df greater than 2, the RMR index less than 0.05. The results overall were considered acceptable. This demonstrated that the model was highly consistent with the empirical data.

The High Performance Work System (HPWS) Consists of Three Factors

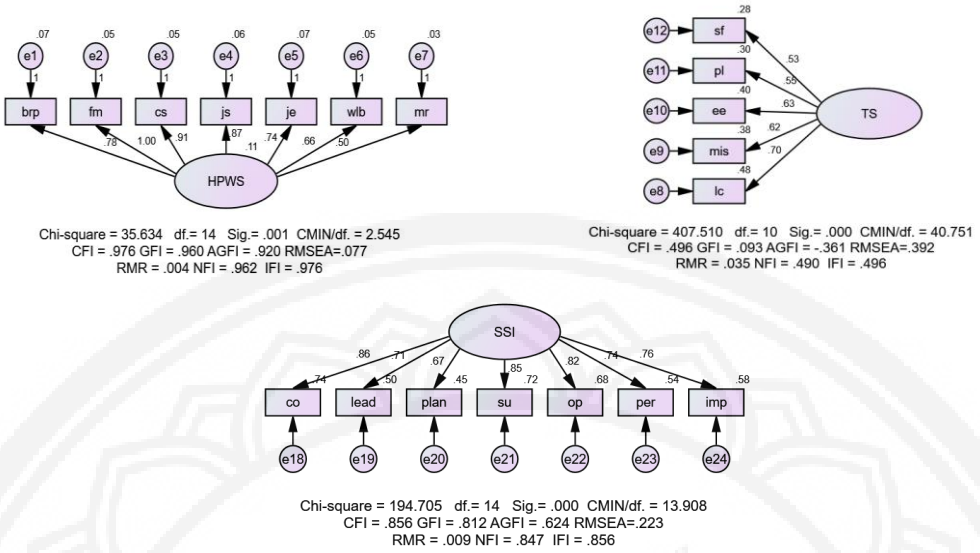

Figure 3 Confirmatory Factor Analysis (CFA) on SSP, TS and SSI.

As demonstrated in Figure 3, the Confirmatory Factor Analysis (CFA) results for the High Performance Work System (HPWS), consists of three factors;

1. The social system consisted of seven factors (SSP) with a normalized element score ranging from 0.50-1.00. The second-order Confirmation Factor Analysis (CFA) of the gauge showed that the model was moderately consistent with the empirical data. This was determined by X^2 = 35.634, df = 14, RMSEA = 0.077, CFI = 0.976, NFI = 0.962, with X^2/df being slightly greater than 2. The RMR index was less than 0.05; the results overall showed acceptable criteria. This demonstrated that the model was highly consistent with the empirical data.

2. The technical system consisted of five factors (TS), with a normalized element score ranging from 0.53-0.70. The second-order confirmation factor analysis of the gauge showed that the model was consistent with the empirical data to a fair level, which was determined by X^2 = 407.510, df = 10, RMSEA = 0.392 by the X^2/df greater than 2, the index CFI = 0.496 and NFI = 0.490. The RMR was greater than 0.05 which overall remained below the standard. This showed that the model was consistent with the empirical data.

3. The support system consisted of seven factors (SSI), with a normalized component score ranging from 0.71-0.86. The model was consistent with the empirical data at a good level. This was determined by X^2 = 194.705, df = 14, RMSEA = 0.223, with X^2/df greater than 2. The CFI index is 0.856 and NFI is 0.847; the RMR index was less than 0.05 which was considered within the acceptable criteria and showed that the model was consistent with the empirical data.

Structural Equation Modeling (SEM) Analysis

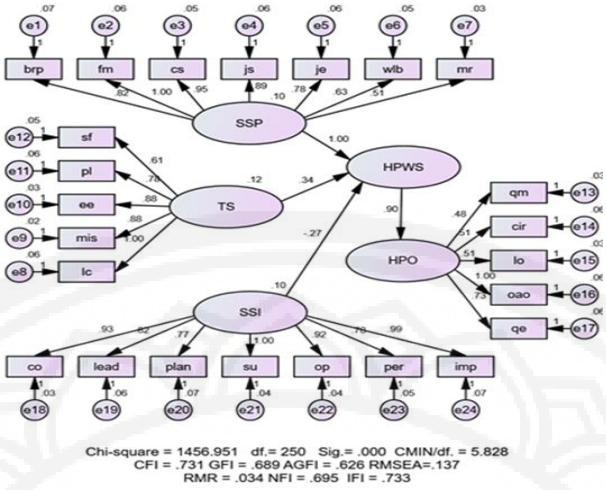

Figure 4 A Structural Model Showing the Influence of Success Factors on HPO.

Figure 4 shows that the model was consistent with the empirical data to a great extent. This can be seen from X^2 = 1456.951, df = 250, RMSEA = 0.137 by the X^2/df = 5.828, CFI index = 0.731 and NFI = 0.695. The RMR index is less than 0.05, which is considered within the acceptable criteria. The model was consistent with the empirical data.

The results of the linear influence analysis from the structural model, showing the influence of the success factor of the High Performance Organization (HPO), found that the social system factor, the technical system factor, and the supporting system factor had a statistically significant influence on the High Performance Work Systems (HPWS) at a 95% confidence level. When considering the influence, it was found that the High Performance Work Systems (HPWS) was most influenced by social system factors. When considering the overall influence analysis, it was found that the most influencing factor on High Performance Organization (HPO) was the High Performance Work Systems (HPWS): social system as people with an element weight value = 0.903

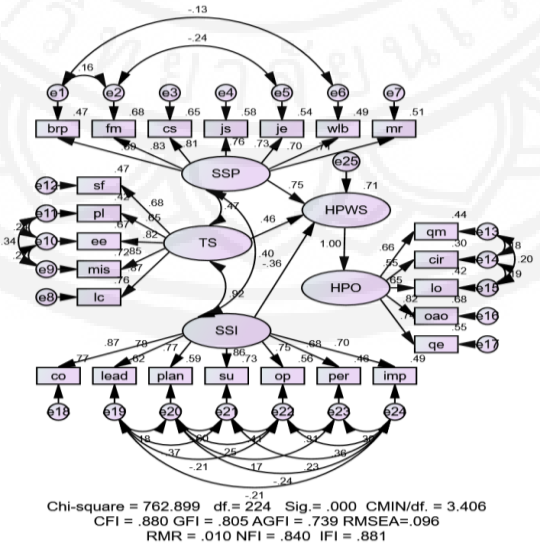

Figure 5 A Structural Model Showing the Influence of Success Factors on the HPO Modification Model.

Figure 5 shows the model was more consistent with the empirical data. This was determined by X^2 = 762.889, df= 224, RMSEA = 0.096, X^2 /df = 3.406, CFI index = 0.880, GIF and AGIF = 0.805 and 0.739, NFI and IFI = 0.840 and 0.881. The RMR index was less than 0.05 and RMSEA index was less than 0.1 which was considered acceptable, and the model is more consistent with the empirical data.

Table 4 Show Effect of Structural Equation Modeling Analysis

			Estimate	Standardized	S.E.	C.R.	P
HPWS	<---	SSP	1.000	0.749			
HPWS	<---	TS	0.555	0.464	0.250	2.218	0.027*
HPWS	<---	SSI	-0.489	-0.355	0.262	-1.867	0.062
HPO	<---	HPWS	0.738	1.000	0.072	10.248	0.000*

*Statistic Significant Level at 0.05

Table 4 shows the results of analysis of linear influences from structural equation models. The total effect of success factors on competent high performance organizations. It was shown that the factors used in this study were high performance work systems. This includes people factors, technical system factors as work process and supporting system factors using information technology. They have an influences on high performance work system with statistically significant. When considering the value of influences, it was found that the high performance work system was significantly and positively related to the achievement of a high performance organization, and it was also found that it was most influenced by the social system subfactors (people) followed by technical system factors as work process. Wherewith, the supporting system factors using information technology influence the high performance work system in the opposite direction. Also, the high performance work system influences high performance organizations in the same direction, respectively.

Table 5 Show Linear Effects Based on the Overall Model (incl. Direct and Indirect Effects)

	Total Effect			Direct Effect			Indirect Effect		
	SSI	TS	SSP	SSI	TS	SSP	SSI	TS	SSP
HPWS	-0.489	0.555	1.000	-0.489	0.555	1.000	0.000	0.000	0.000
HPO	-0.361	0.410	0.738	0.000	0.000	0.000	-0.361	0.410	0.738

Table 5 the overall influence analysis both directly and indirectly shows that the social system subfactors (people) had the greatest influence on management systems in the high performance organization. The overall component weight of 0.738 was a result of all indirect influences, followed by the technical system factors as work process with an element weight value of 0.410 and the supporting system factors using information technology to influence high performance organizations which influenced in the opposite direction with the element weight value of -0.361, respectively.

Part 2: The Qualitative Analysis Results are from data gathered from according to in-depth interviews with the executive management of the organization with the interviewing taking approximately 30-60 minutes using an in-depth interview format. For the interview data analysis, the procedure based on the Grounded Theory Data Analysis concept was employed using Content Analysis with the principles of Strauss & Corbin (1990).

The results of the analysis revealed that the High Performance Work System (HPWS) was an influential factor contributing to the success of the High Performance Organization (HPO) of the logistics industry in Thailand

through the relationship of 3 factors: 1) the social system, as people, 2) the technical system, as a work process, and 3) the supporting system, as information technology through the concept of Resource Base View Theory (RBV), and a developed research framework, including the research using the Grounded Theory method that the researchers created from the data obtained through the interviews.

Conclusion

This study aimed to analyze the key factors affecting High Performance Organizations (HPO) using a case study of the logistics industry in Thailand by studying the relationship between High Performance Work System (HPWS) and the High Performance Organization (HPO) of the logistics industry in Thailand, using a mixed methods research model with a combination of both quantitative and qualitative methods of research in both data collection and analysis. This research used the business of integrated logistics service 3PLs, which is a service provider covering two or more logistics activities. These businesses act as the population group in this research with 260 companies.

The results of this research showed that overall, the opinions of the High Performance Organization (HPO) were at a high level which the factor with the highest mean was Continuous Improvement and Renewal (CIR). Furthermore, the opinion levels of the High Performance Work System (HPWS), consisting of the social system subfactors (people) had the highest mean being the Job Enrichment (JE) factor. Overall, the technical system as a work process factor that measures logistics management efficiency and potential and is a form of assessment of organization abilities was at a good level; the factor with the highest mean was the factor in establishing the strategy of the firm. For the supporting system using information and technology, overall, the level was good level; the factor with the highest mean was the leadership factor.

The Exploratory Factor Analysis (EFA) found that observable variables were highly correlated. According to the index, Bartlett's test of Sphericity and KMO was greater than 0.80, which shows that the data was very suitable for Factor Analysis (FA).

The Confirmation Factor Analysis (CFA) found that the model was consistent with the empirical data to a good level based on X^2, df, RMSEA, X^2 /df, CFI index, and NFI index. Thus, an RMR index value less than 0.05 was considered acceptable.

The Structural Equation Model (SEM) found that the factors of High Performance Work Systems (HPWS) were derived from 3 abbreviated factors: 1) the social system as a people; 2) the technical system as a work process; and 3) the supporting system as information technology. All three had a statistically significant influence on the success factor of the High Performance Organization (HPO) at a confidence level of 95% and the High Performance Work Systems (HPWS) was strongly influenced by the social system as people. The overall factor loading = 0.903 and also, the model was consistent with the empirical data to a good level.

Discussion

Specifically, the discussion is structured according to the research objectives.

1. Analysis of the key factors affecting a High Performance Organization (HPO), a case study of the logistics industry in Thailand, found that the High Performance Work Systems (HPWS) derived from the following:

The social system factor as people. It has a strong direct influence on a High Performing Organization (HPO), which can be discussed as "people". They are the most important resource to develop jobs and to be able to produce jobs that are of high quality and can compete with other organizations. Also, Job Security (JS) and Best Recruitment Practice (BRP) factors were found to be critical to organizational competitiveness and result in the organization becoming a High Performance Organization (HPO) (Zhang, Di Fan, & Zhu, 2014) and follows the concept of encouraging employees to participate in their work, which enhances the benefits and performance of the organization (Huselid, 1995; Richard & Johnson, 2004). Therefore, understanding the High Performance Work System (HPWS) practice is both theoretical and practical. Especially in the current competitive market environment (Drummond & Stone, 2007), continuous development and training play an outstanding role in developing employees to have competent behavior in their work to achieve both quantitative and qualitative results in line with the organization's expected goals. Similarly, Wright & McMahan (1992) describe how compensation management plays an important role in stimulating and controlling human resources to feel an intrinsic motivation, such as organizational engagement and working behavior which are the resulting process that will create the productivity and competitiveness of the organization.

The technical system factor as a work process. The cooperation between firms was the most influencing factor for a High Performance Work Systems (HPWS). Moreover, the organization places importance on work processes, focusing on two processes: internal processes and customer service. Therefore, the logistics service provider should have a logistics management capacity assessment to assess the organization's operational ability by grading their organization in order to use their assessment of defects and plan for further development together with the improvement of the work process as well. Support is needed for networking with entrepreneurs to expand their marketing base and strengthen their business operations. In addition, it is important to develop a logistics information center to exchange information about business operations, import and export of goods, freight forwarding, and logistics activities as well as regulations and procedures of each business partner that are current and in response to events, especially in an emergency, and to promote the transformation of the business model to the concept of the sharing economy to achieve efficient use of resources and reduce business costs.

The supporting system factor contributing to the use of information systems and technology. The most influencing factor was leadership. Top management attaches great importance to the information security management system, and this is in writing and communicated thoroughly within the organization. Moreover, there is the utilization of knowledge and information technology systems to support efficient work processes, such as cost reduction, convenience, speed, and error reduction, bringing information technology to the development of various systems management. It also helps to increase productivity, control, and mitigate risks that arise to advance the business, such as leveraging online applications or platforms for shipping, warehouse management, and logistics activities throughout the supply chain. Also important is the development of efficient logistical database management so that operators can use the information as a tool for analysis, tracking, evaluation, and planning to optimize the business management. It can also be used to develop a simulation model in order to be able to adjust strategies and prepare for changes and market demands to keep up with the situation. As a whole, this research supports the fundamental concept of Resource Base Theory (RBV) on the influence of process capital, namely the High Performance Work Systems (HPWS) on a high performance organization of 3PLs logistics service provider, which is a critical factor that can affect the achievement and competitiveness of the logistics industry in Thailand.

2. The relationship between the High Performance Work Systems (HPWS) and the High Performance Organization (HPO) of the logistics industry in Thailand was analyzed from the results of linear influence analysis following the structural model. The influence of success factors on high performing organization showed that the factors used in this study were the High Performance Work Systems (HPWS), which consisted of three factors: 1) social system factors, 2) technical system factors, and 3) supporting factors through the use of information systems and technology which had a statistically significant influence on the High Performance Work Systems (HPWS) at a confidence level of 95%. The social system factors influenced the high performance work systems (HPWS) the most, and also the High Performance Work Systems (HPWS) influenced the High Performance Organization (HPO) in the same direction.

The findings of this study have also helped to advance the resource-based view that competitiveness is not an end itself but a means to an end. That is, competition is important for the achievement of competitive advantage because competitive advantage cannot be achieved if there is no competition in the market, even though a firm's resources are rare, valuable, inimitable and substitutable, competition compels firms to search for these resources in order to achieve market advantage.

Theoretical Implication

The conceptual framework of this study was based on previous empirical support and theoretical gaps identified in the literature. It was also supported and explained from two theoretical perspectives, namely Resource Base Theory (RBV) (Barney, 1991) and Social Exchange Theory (SET) (Blau, 1964). This study builds on the RBV by integrating the dynamic resource (HPWS) into a model of HPO.

Suggestions

1. In this study, only the most significant factors affecting the High Performance Organization (HPO) were examined; therefore, in the next study, additional factors that have not been studied in this research should be included, such as organizational culture, external environment, job characteristics, and job satisfaction.

2. In this research, the sample used in the study did not cover the logistics providers 4PLs and 5PLs. Therefore, in the next study, the factors affecting the high performance organization should be studied from a sample group of 4PLs and 5PLs logistics service providers to analyze and compare models and direction of influence in each variable and each model as to how they are similar and how they are different.

References

Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, *103*(3), 411-423. https://doi.org/10.1037/0033-2909.103.3.411

Bagorogoza, J., & de Waal, A. (2010). The Role of Knowledge Management in Creating and Sustaining High-performance Organisations: The Case of Financial Institutions in Uganda. *World Journal of Entrepreneurship, Management, and Sustainable Development*, *6*(4), 307-324. https://doi.org/10.1108/20425961201000023

Baker, D. P., Day, R., & Salas, E. (2006). Teamwork as an Essential Component of High-reliability Organizations. *Health Services Research*, *41*(4p2), 1576-1598. http://doi.org/10.1111/j.1475-6773.2006.00566.x

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99-120. https://doi.org/10.1177/014920639101700108

Blau, P. M. (1964). *Exchange and Power in Social Life*. New York: Wiley.

Buytendijk, F. (2006). The Five Keys to Building a High Performance Organization (Gartner Group). *Business Performance Management Magazine*, *4*(1), 24-47.

de Waal, A. A. (2010). Achieving High Performance in the Public Sector: What Needs to Be Done? *Public Performance & Management Review*, *34*(1), 81-103. Retrieved from https://www.tandfonline.com/doi/abs/10.2753/PMR1530-9576340105

de Waal, A. A. (2012). Characteristics of High Performance Organization. *Journal of Management Research*, *4*(4), 39-71. https://doi.org/10.5296/jmr.v4i4.2062

de Waal, A. A., Goedegebuure, R., & Tan Akaraborworn, C. (2014). Adapting the High Performance Organization Framework to the Thai Context. *Measuring Business Excellence*, *18*(2), 28-38. https://doi.org/10.1108/MBE-08-2013-0043

de Waal, A. A., & Tan Akaraborworn, C. (2013). Is the High Performance Organization Framework Suitable for Thai Organizations? *Measuring Business Excellence*, *17*(4), 76-87. https://doi.org/10.1108/MBE-01-2013-0001

Drummond, I., & Stone, I. (2007). Exploring the Potential of High Performance Work Systems in SMEs. *Employee Relations*, *29*(2), 192-207. https://doi.org/10.1108/01425450710720011

Gupta, S., Woodside, A., Dubelaar, C., & Bradmore, D. (2009). Diffusing Knowledge-based Core Competencies for Leveraging Innovation Strategies: Modelling Outsourcing to Knowledge Process Organizations (KPOs) in Pharmaceutical Networks. *Industrial Marketing Management*, *38*(2), 219-227. https://doi.org/10.1016/j.indmarman.2008.12.010

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (7th ed.). New Jersey, USA: Pearson Education.

Huselid, M. A. (1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corporate Financial Performance. *Academy of Management Journal*, *38*(3), 635-672. Retrieved from https://www.markhuselid.com/pdfs/articles/1995_AMJ_HPWS_Paper.pdf

Huselid, M. A., & Becker, B. E. (1997). The Impact of High Performance Work Systems, Implementation Effectiveness, and Alignment with Strategy on Shareholder Wealth. *Academy of Management Proceeding*, *1*, 144-148. https://doi.org/10.5465/ambpp.1997.4981101

Jamrog, J. J., Vickers, M., Overholt, M. H., & Morrison, C. L. (2008). High Performance Organization: Finding the Elements of Excellence. *People and Strategy*, *31*(1), 29-38.

Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (3rd ed.). New York: Guilford Press.

Lorsuwannarat, T. (2009). *Modern Organization Theory*. Bangkok: D K Printing World.

Office of the National Economic and Social Development Council. (2020). *Thailand's Logistics Report 2019*. Bangkok: Office of the National Economic and Social Development Council.

Richard, O. C., & Johnson, N. B. (2004). High Performance Work Practices and Human Resource Management Effectiveness: Substitutes or Complements? *Journal of Business Strategies*, *21*(2), 133-148.

Schumacker, R. E., & Lomax, R. G. (2010). *A Beginner's Guide to Structural Equation Modeling* (3rd ed.). New York: Routledge.

Sekaran, U., & Bougie, R. (2013). *Research Methods for Business: A Skill-building Approach* (6th ed.). New York: Wiley.

Strauss, A. L., & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Thousand Oaks, CA: Sage Publications.

Wright, P. M., & McMahan, G. C. (1992). Theoretical Perspectives for Strategic Human Resource Management. *Journal of Management*, *18*(2), 195-320. Retrieved from https://www.dphu.org/uploads/attachements/books/books_5027_0.pdf

Zhang, M., Di Fan, D., & Zhu, C. J. (2014). High-performance Work Systems, Corporate Social Performance and Employee Outcomes: Exploring the Missing Links. *Journal of Business Ethics*, *120*(3), 423-435. http://doi.org/10.1007/s10551-013-1672-8