Service Quality of Logistics Providers in Thailand: A Case Study of Industrial in The Eastern Region
คุณภาพการบริการของผู้ให้บริการด้านโลจิสติกส์ในประเทศไทย: กรณีศึกษาอุตสาหกรรมในเขตภาคตะวันออก

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Abstract

The objective of this research consists of (1) to study the service quality factors influencing enhancement logistics service providers in Thailand industry at Amata Industrial Estate and Leam Chabang Industrial Estate and (2) to compare the differences of service quality factors between Amata Industrial Estate and Leam Chabang Industrial Estate for improved to enhance logistics performance in Thailand industry. The methodologies for this study are descriptive analysis and hypothesis test (t-test) by using primary sources from population target in Amata Industrial Estate and Leam Chabang Industrial Estate. In the study conducted survey from entrepreneur in Industry. According to the research results found that entrepreneur gives the important about transfer unnecessary activities to expert to support their business which this factor is very important for decision about factors influencing enhancement logistics service providers. However, the results also shown the significant of service quality factors to improve and enhance logistics performance for Thailand industry in Amata Industrial Estate and Leam Chabang Industrial Estate which is Tangible factor related the physical facilities and appearance of personal characteristics. Tangible characteristics of service quality are concerned with the appearance of employees, physical facilities and other facilities. In the summary result of Hypothesis test shown that the 5 factors including reliability, responsiveness, tangible, empathy and assurance, they are no difference regarding to service quality factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

Keywords: Logistics service providers, Service quality factors

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์ดังนี้ (1) เพื่อศึกษาปัจจัยด้านคุณภาพการบริการที่มีผลต่อการเพิ่มประสิทธิภาพ
ของผู้ให้บริการด้านโลจิสติกส์ในประเทศไทยในเขตพื้นที่นิคมอุตสาหกรรมอมตะนครและนิคมอุตสาหกรรมแหลมฉบัง
(2) เพื่อเปรียบเทียบความแตกต่างของปัจจัยคุณภาพการบริการระหว่างเขตพื้นที่นิคมอุตสาหกรรมอมตะนครและนิคม
อุตสาหกรรมแหลมฉบังสำหรับการปรับปรุงและเพิ่มประสิทธิภาพการขนส่งในอุตสาหกรรมไทย วิธีการในการศึกษาครั้ง
นี้เป็นการวิเคราะห์เชิงพรรณนาและการทดสอบสมมติฐาน (t-test) โดยใช้แหล่งข้อมูลปฐมภูมิจากกลุ่มประชากรเป้า
หมายในเขตพื้นที่นิคมอุตสาหกรรมอมตะนครและนิคมอุตสาหกรรมแหลมฉบังด้วยวิธีการสำรวจและสัมภาษณ์เชิงลึก
จากผู้ประกอบการในอุตสาหกรรม ผลการวิจัยพบว่าผู้ประกอบการให้ความสำคัญกับการถ่ายโอนกิจกรรมที่ไม่จำเป็น
ไปยังผู้เชี่ยวชาญเพื่อสนับสนุนธุรกิจของพวกเขาซึ่งปัจจัยนี้มีความสำคัญต่อการตัดสินใจเกี่ยวกับปัจจัยที่มีอิทธิพลต่อผู้
ให้บริการโลจิสติกส์ อย่างไรก็ตามผลการวิจัยยังแสดงให้เห็นถึงความสำคัญของปัจจัยด้านคุณภาพในการให้บริการเพื่อ
ปรับปรุงและเพิ่มประสิทธิภาพการให้บริการด้านโลจิสติกส์สำหรับอุตสาหกรรมไทยในนิคมอุตสาหกรรมอมตะนครและ
นิคมอุตสาหกรรมแหลมฉบัง โดยมีปัจจัยหลักคือ การให้บริการที่เป็นรูปธรรมด้านสิ่งอำนวยความสะดวกทางกายภาพ
คุณลักษณะที่เป็นรูปธรรมของคุณภาพการบริการเกี่ยวข้องกับบุคลิกภาพภายนอกของพนักงาน สิ่งอำนวยความสะดวก
ทางกายภาพและสิ่งอำนวยความสะดวกอื่น ๆ ที่ผู้ให้บริการโลจิสติกส์สามารถจัดหาให้แก่ผู้ประกอบการ จากผลสรุป
ของการทดสอบสมมติฐานพบว่าปัจจัยทั้ง 5 ด้านได้แก่ ความน่าเชื่อถือ, การตอบสนอง, ความเป็นรูปธรรม, การเอาใจ
ใส่ และความเชื่อมั่น ไม่มีความแตกต่างเกี่ยวกับปัจจัยด้านคุณภาพการบริการระหว่างนิคมอุตสาหกรรมอมตะนครและ
นิคมอุตสาหกรรมแหลมฉบัง

คำสำคัญ: ผู้ให้บริการด้านโลจิสติกส์, ปัจจัยด้านคุณภาพในการให้บริการ

Introduction

The scope and influence of logistics has evolved in the late 1940s. In the 1950s, and 60s, military was the only organization which used logistics. The scope of logistics has been extended beyond the army, as it has been recognized as one of the important tools for developing competitiveness. Competitive advantage means the company can establish the differentiate image in the customer's eyes and the company also is operating at a lower cost and greater profit (Chandrasekaran, 2017). Logistics outsourcing is also big business in the US. (Patrick, Boolaky & Gungaphul, 2017). In 2000, third-party logistics service providers (3PLs), generated $56.4 billion revenue in the US, up from $46 billion in 1999, (Armstrong & Associates, 2011), Then in 2001

estimated total contract logistics market revenues were $60.8 billion. (Armstrong & Associates, 2011) In Asia Pacific region, Singapore was the leader of logistics service. With a substantial increase in external trade, demand for logistics services also grew rapidly. Singapore took the lead in investing heavily in logistics infrastructure, developing its port and transportation. In 1996, it was estimated by Singapore's Economic Development Board that the logistics sector in Singapore had committed a record S$1.1 billion in fixed assets, a hefty 70 % increase over 1995. Total business spending of the logistics sector in Singapore rose 40 % in 1996 to more than S$280 million (Shams, 2013). To enhance the competitive advantage in the current

global market, emerging trend of outsourcing in supply chain management has come a sig nificant topic of discussion among managers and academicians. As increasing in competitive pressure, the enhancement of logistics service provider has been considered since they become the support activity in organization to achieve their capabilities or core competencies as strategic alliance or partnership. Meanwhile, Eastern Economic Corridor (EEC) project is a strategic plan under Thailand 4.0 which is a success in the Eastern Economic Development plan. Thai government hopes to develop its eastern provinces into a leading ASEAN economic zone. The EEC focus on three eastern provinces of Thailand include Chonburi, Rayong and Chachoengsao off the coast of the gulf of Thailand (Royal Thai Embassy in New Delhi, 2019). Thus, this research focuses on 2 large Industrial Estates in Chonburi province to study the service quality factors influencing enhancement logistics service providers.

Research Objectives

1. To study the service quality factors influencing enhancement logistics service pro viders in Thailand industry at Amata Industrial Estate and Leam Chabang Industrial Estate

2. To compare the differences of service quality factors between Amata Industrial Estate and Leam Chabang Industrial Estate for improved to enhance logistics performance in Thailand industry.

Literature Review

The concept of Logistics service provider (3PL)

3PL is referred to as third party logistics, contract logistics, integrated logistics and outsourced logistics. 3PL has many definitions and interpretations, there is no uniform or standard definition that seems to satisfy academic researchers as well as company managers. Stank and Maltz refers to 3PL as any firm that provides a good or service that it does not own. Sink et al define 3PL services as multiple distribution activities provided by a third party, neither the provider nor the customer, who assumes no ownership of inventory. The goal of the 3PL company is to accomplish related functions that the producer does not want to manage. 3PL is a for-hire logistics service provider for the buyer or seller of raw materials, goods in process and finished products. Berglund et al define 3PL as a logistics service company providing service on behalf of a shipper res ponsible for the management, transportation and warehousing of goods. Lim defines 3PL as an external company responsible for getting the right products to the right place at the right time, and at the right cost. Some definitions appear to be broad and inclusive in nature, while others have a narrow and more exclusive focus. McGinnis et define 3PL activities as logistical activities that can be provided or required by either a buyer or a seller. Another definition of 3PL characterizes it as an external organization that performs all or part of a producer's or consumer's logistical functions. Sink and Langley refer to 3PL provider as an external supplier performing some or all of a manufacturer's or customer's logistical functions. In contrast, Murphy and Poist give a narrow and exclusive definition of 3PL that is a long-term, mutually beneficial relationship between a shipper and a logistics provider that offers various logistics service functions. Bagchi and Virum refer to 3PL as a long-term partner that provides all or a considerable number of logistics activities for the shipper.

As currently understanding, logistics is a broad concept defined as a part of the supply chain management that plans, imple ments, and controls the efficient and effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customer's requirements. Logistics service provider need to increase value to customer by providing logistics service more efficiently than their competitors by increasing value and establish efficiency through logistics activities for sustainable competitive advantage. Competitive in logistics must be used internal and external indicators for decision-making which related reliability or responsiveness of a business's structure (Carlos Kirby and Nicolau Brosa, 2011)

External	Reliability	Ability to perform tasks as ex-pected (e.g., predictability of the outcome of a process).	• Right quantity • Right quality • Ontime
	Responsiveness	Speed at which tasks are per-formed or in which supply chain delivers products.	• Order fulfillment cycle time • Delivery cycle time (includes transportation time) • Planning cycle time
	Agility	Ability to respond to external influences, responding to changes in the market, to gain or maintain competitive position.	• Flexibility of supply chain • Adaptability of supply chain
Internal	Costs	The cost of operating the process, which includes labor, materials, management, and transportation.	• Cost of goods sold • Cost of labor • Cost of transport
	Assets	Ability to efficiently useassets. Asset management strategies include inventory reduction andin-sourcing vs. outsourcing.	• Inventory days of supply • Capacity utilization • Cash-to-cash cycle time

SERVQUAL Model

The determinant Customer expectation on logistics service providers in manufacturing industry by SERVQUAL and Model of Service Quality Gaps which Parasuraman was established this model. SERVQUAL and Model of Service Quality Gaps was introduced by Shahin (2015) The aims of this model proposed seven major gaps in the service quality concept, the model is an extension of Parasuraman (1985) the three important gaps, which are more associated with the external customers are Gap1, Gap5 and Gap 6; since they have a direct relationship with customers.

Gap 1: Customers' expectations versus management perceptions: as a result of the lack of a marketing research orientation, inadequate upward communication and too many layers of management.

Gap 2: Management perceptions versus service specifications: as a result of inadequate commitment to service quality, a perception of unfeasibility, inadequate task standardisation and an absence of goal setting.

Gap 3: Service specifications versus service delivery: as a result of role ambiguity and conflict, poor employee-job fit and poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.

Gap 4: Service delivery versus external communication: as a result of inadequate horizontal communications and propensity to

over-promise.

Gap 5: The discrepancy between customer expectations and their perceptions of the service delivered: as a result of the influences exerted from the customer side and the shortfalls (gaps) on the part of the service provider. In this case, customer expectations are influenced by the extent of personal needs, word of mouth recommendation and past service experiences.

Gap 6: The discrepancy between customer expectations and employees' perceptions: as a result of the differences in the understanding of customer expectations by front-line service providers.

Gap 7: The discrepancy between employee's perceptions and management perceptions: as a result of the differences in the understanding of customer expectations between managers and service providers.

The determination of the perceived quality of services involves the calculation of the difference between the perception of the service and the ideal (desired, expected) service level, which, at the same time, makes it possible to capture the gap that occurs between the expectations and the perception of services as Figure 2.1 (Marta Kadubek and Janusz Grabara ,2014)

Conceptual Framework

To address the objectives research above a conceptual framework of the research a conceptual framework of the research showing the relationship Firm's organization and customer perception of service providers which indicated the gap of customer expectation and customer perception in service quality factors.
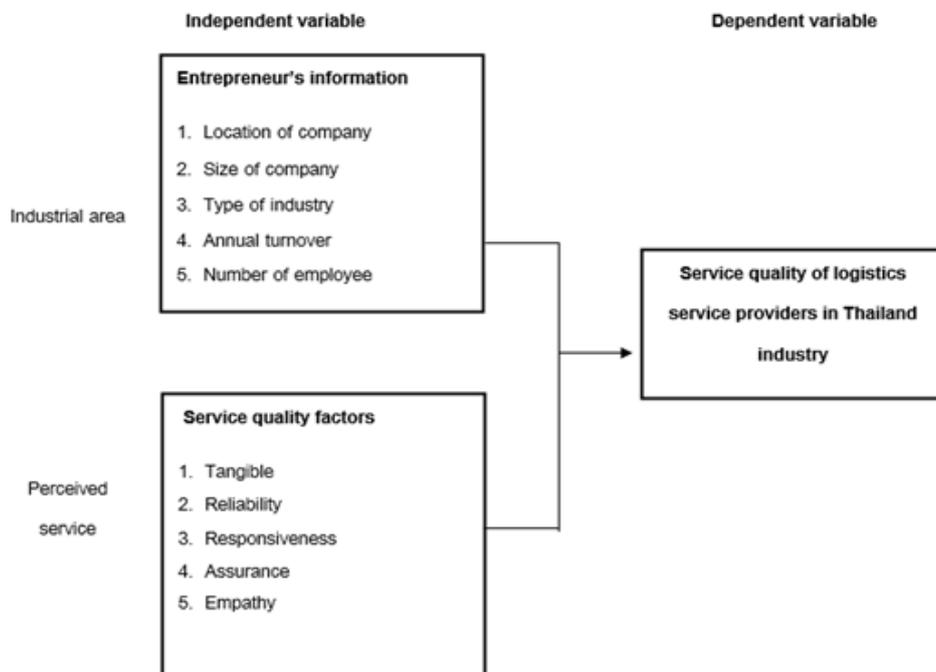

Figure 1 *Conceptual Framework*

Hypothesis

In this study, Data analysis is focusing on five hypotheses which would positively or negatively logistics management indicators affect enhancing logistics service provider factors. A detail of the hypotheses is shown as follows;

Hypothesis 1: There is difference regarding to tangible factors between Amata Industrial Estate and Leam Chabang Industrial Estate

Hypothesis 2: There is difference regarding to reliability factors between Amata Industrial Estate and Leam Chabang Industrial Estate

Hypothesis 3: There is difference regarding to responsiveness factors between Amata Industrial Estate and Leam Chabang Industrial Estate

Hypithesis 4: There is difference regarding to assurance factors between Amata Industrial Estate and Leam Chabang Industrial Estate

Hypothesis 5: There is difference regarding to empathy factors between Amata Industrial Estate and Leam Chabang Industrial Estate

Research Methodology

In an overview of research design, this research was designed to utilize a quantitative approach to address the research question of questionnaire. Three part of questionnaire were used to accumulate data from manufacturer was used service logistics provider in Amata Industrial Estate and Leam Chabang Industrial Estate. Before distributing the questionnaire to the targeted respondents. A pilot study was conducted with several industry experts and academic professionals. Based on their feedback, modifications were made to clarify of each item in the questionnaire. The researcher was collected the data by e-mail and digital questionnaires. The collected data

Population and Sample

The research was survey to conduct data from 2 industrial estates area consist of Amata industrial estate area and Leam Chabang industrial estate area. In the study, Researcher used simple random sampling technique through the probability sampling; each member of the population has an equal and known chance of being selected. That is a subject who met the criteria of selection was approached to ask for their willingness to participate in the study. Simple random sampling is simple to accomplish and is easy to explain to others. Because simple random sampling is a fair way to select a sample, it is reasonable to generalize the results from the sample back to the population.

For the sample size of the respondents. The sample size was calculated based on Yamane's formula (Yamane, 1973) for manufacturing industrial in Amata industrial estate area and Leam Chabang industrial estate area. As per calculated by Yamane formula, the number of target population in Amata industrial estate area (N) has 820 companies. The significant level (e) is 0.05. The required sample size (n) should be in the range of 269 companies. In Leam Chabang industrial estate area, the target populations in Leam Chabang industrial is 239 companies. Since there are small number of the population. Thus, the researcher decides to collect data for this area from total number of populations. A total of questionnaire in two group (Amata Industrial Estate and Leam Chabang Industrial Estate) were distributed to two targets industrial estate. The table present

about sample size of each industrial estate and questionnaires that were distributed to each industrial company.

Table 1

sample size of each industrial estate and questionnaires that were distributed to each industrial company. The survey is conduct in April 2018.

Industrial Estate area	Distribute
Amata Industrial Estate	269
Leam Chabang Industrial Estate	239
Sub-total	508

Source: Industrial Estate Authority of Thailand. (2017)

Research Tools

In the part of research Instrument, the researcher focuses on the framework of the research. The researcher will relate the theories and the literature review to develop the conceptual framework of the research. The results of this study will be presented in the way that referred to theoretical model of the study. In an overview of research design, this survey research was designed to utilize a quantitative approach to address the research question which including 3 parts of questionnaire. The questions can be divided into five dimensions covered by a total 25 questions for the modified perceptions part. The five dimensions of SERVQUAL are;

• Reliability refers the firm's ability to provide the service dependably and accurately.

• Responsiveness refers the willingness to help customers and provide prompt service.

• Ability refers the physical facilities, equipment, an appearance of personal characteristics of services quality are concerned with the appearance of employees.

• Assurance refers the knowledge and courtesy of employees as well as their ability to convey trust and confidence.

• Empathy refers the caring and individualized attention the firm provides its customers.

The part of questionnaire was used to accumulate data from manufacturer was used service logistics provider in Amata Industrial Estate and Leam Chabang Industrial Estate. The questionnaire was pretested at the other industrial estate in Samutprakarn area in order to ensure acceptance reliability. The researcher distributed questionnaire by e-mail and send a letter directly to purchasing department of the manufacturer which related to supporting the procurement of logistics service providers. The purchasing department considered the need of internal customers by procuring the good and service. The collected data were analyzed using the statistical program. Furthermore, the researcher tested the reliability of the questionnaire by Alpha coefficient according Cronbach's Alpha coefficient approach which Alpha coefficient for this study equal to 0.79.

Data Collection

The researcher used both primary and secondary data in this study. To collect the primary

data, the researcher was required to distribute copies of the self-administered questionnaires to target respondent by e-mailing. This approach is the most flexible method of data collection, as it gives respondents the freedom and privacy to complete the questionnaires.

The questionnaire consists of clos ed-ended question and rating scale. The results will be processed through statistical program. In additional to the primary source, the researcher used secondary data such as textbooks, previous research, business journals and other related information from the websites that were relevant to study.

Statistical Analysis

This study has used descriptive analysis and hypothesis test (t-test) by using primary sources from population target in Amata Industrial Estate and Leam Chabang Industrial Estate. In the study conducted the survey questionnaire from the manufacturer in Amata Industrial Estate and Leam Chabang Industrial Estate. hypothesis test (t-test) was applied to find different of service quality factors between Amata Industrial Estate and Leam Chabang Industrial Estate. The respondents will

be asked to express their attitude toward each factor in form of rating scale according Likert scale (1932). Researcher is focusing on five hypotheses which would positively or negatively logistics management indicators affect enhancing logistics service provider factors.

Result

A total of questionnaire in two group (Amata Industrial Estate and Leam Chabang Industrial Estate) were distributed to two targets industrial estate. The sample size is 508 companies. About two month after the date of distribute, follow-up call, mails and frequent visitation were made to non-respondents to encourage them to respond. When nec essary, a second round of follow-up efforts was undertaken to increase the response rate. After three months, a total of 308 questionnaires from industrial company in Amata Industrial Estate and Leam Chabang Industrial Estate were received. The response rate is 97% or 494 respondents consist of the Respondents from Amata Industrial Estate 284 and Respondents from Leam Chabang Industrial Estate 210. The details of issue and collection of questionnaires shown in table 2.

Table 2
Issue and collection of the questionnaire

Sample size	508
Respondents	494
Response Rate	97%

The 5 hypotheses in the study will show the different of service quality factors. All of the evaluation uses a significance level at 0.05 as the entrance for rejection or not rejection.

Table 3

Different in reliability between Amata Industrial Estate and Leam Chabang Industrial Estate

Location	n	Mean	Standard Deviation	t	Sig (2-tailed)
Amata Industrial Estate	284	3.35	0.42	0.52	0.61
Leam Chabang Industrial Estate	210	3.33	0.43		

The result of hypothesis test 1 in table 3 indicates that value significance (2-tailed) is 0.61, which is higher than the significant level (0.05). Therefore, the researcher accepts Ho and rejects Ha. Which implied that there is no difference regarding to reliability factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

Table 4

Different in responsiveness between Amata Industrial Estate and Leam Chabang Industrial Estate

Location	n	Mean	Standard Deviation	t	Sig (2-tailed)
Amata Industrial Estate	284	3.85	0.18	-0.36	0.72
Leam Chabang Industrial Estate	210	3.86	0.19		

The result of hypothesis test 2 in table 4 indicates that value significance (2-tailed) is 0.72, which is higher than the significant level (0.05). Therefore, the researcher accepts Ho and rejects Ha. Which implied that there is no difference regarding to responsiveness factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

Table 5

Different in Tangible between Amata Industrial Estate and Leam Chabang Industrial Estate

Location	n	Mean	Standard Deviation	t	Sig (2-tailed)
Amata Industrial Estate	284	3.86	0.41	5.71	0.73
Leam Chabang Industrial Estate	210	3.87	0.37		

The result of hypothesis test 3 in table 5 indicates that value significance (2-tailed) is 0.73, which is higher than the significant level (0.05). Therefore, the researcher accepts Ho and rejects Ha. Which implied that there is no difference regarding to tangible factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

Table 6

Different in Empathy between Amata Industrial Estate and Leam Chabang Industrial Estate

Location	n	Mean	Standard Deviation	t	Sig (2-tailed)
Amata Industrial Estate	284	3.01	0.14	0.17	0.86
Leam Chabang Industrial Estate	210	3.01	0.18		

The result of hypothesis test 4 in table 6 indicates that value significance (2-tailed) is 0.86, which is higher than the significant level (0.05). Therefore, the researcher accepts Ho and rejects Ha. Which implied that there is no difference regarding to empathy factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

Table 7

Different in Assurance between Amata Industrial Estate and Leam Chabang Industrial Estate

Location	n	Mean	Standard Deviation	t	Sig (2-tailed)
Amata Industrial Estate	284	3.40	0.40	1.31	0.19
Leam Chabang Industrial Estate	210	3.35	0.39		

The result of hypothesis test 5 in table 7 indicates that value significance (2-tailed) is 0.19, which is higher than the significant level (0.05). Therefore, the researcher accepts Ho and rejects Ha. Which implied that there is no difference regarding to assurance factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

In the summary result of Hypothesis test shown that the 5 factors of service quality (reliability, responsiveness, tangible, empathy and assurance) are no difference regarding to empathy factors between Amata Industrial Estate and Leam Chabang Industrial Estate. Which the result rejects the 5 hypotheses.

Table 8

Summary of Hypothesis tests

Hypotheses	Result	Conclusion
H1: There is difference regarding to tangible factors between Amata Industrial Estate and Leam Chabang Industrial Estate	Rejected	There is no difference regarding to tangible factors between Amata Industrial Estate and Leam Chabang Industrial Estate.
H2: There is difference regarding to reliability factors between Amata Industrial Estate and Leam Chabang Industrial Estate	Rejected	There is no difference regarding to reliability factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

H3: There is difference regarding to responsiveness factors between Amata Industrial Estate and Leam Chabang Industrial Estate	Rejected	There is no difference regarding to responsiveness factors between Amata Industrial Estate and Leam Chabang Industrial Estate.
H4: There is difference regarding to empathy factors between Amata Industrial Estate and Leam Chabang Industrial Estate	Rejected	There is no difference regarding to empathy factors between Amata Industrial Estate and Leam Chabang Industrial Estate.
H5: There is difference regarding to assurance factors between Amata Industrial Estate and Leam Chabang Industrial Estate	Rejected	There is no difference regarding to assurance factors between Amata Industrial Estate and Leam Chabang Industrial Estate.

Discussions

The main objective of the study is to study and compare the differences of service quality factors between Amata Industrial Estate and Leam Chabang Industrial Estate for improved to enhance logistics performance in Thailand industry. As such, the study measured expectations and perceptions of using service logistics provider and the gap between the two target areas. The researcher has analysis the result of service quality factors by separate 5 factors including tangible, reliability, responsiveness, empathy and assurance to survey the attitude of service quality factors in Amata Industrial Estate and Leam Chabang Industrial Estate.

In Amata Industrial Estate, the result of tangible factor is very important level ($\overline{X}$=3.86) which sufficient service personnel to deliver service ($\overline{X}$=4.17) is the most important of tangible factor. Reliability factor is moderate important level ($\overline{X}$=3.35) which fallibility in service ($\overline{X}$=3.82) is the first priority in reliability factor. Responsiveness factor is at very important level ($\overline{X}$=3.85) which employees in service provider companies give your prompt service ($\overline{X}$=4.06) is the most important of responsiveness factor. Empathy factor is at moderate important level

($\overline{X}$=3.01) when consider in detail, Service provider gives you individual attention ($\overline{X}$=3.10) is the most important of Empathy factor. Assurance factor is at moderate important level ($\overline{X}$=3.40) which feeling safe in your transactions with service provider ($\overline{X}$=3.88) is the most important in assurance factor. In Leam Chabang Industrial Estate, the results of tangible factor is at a very important level ($\overline{X}$=3.87) When considering in detail, Good interpersonal skill of contact personnel ($\overline{X}$=4.19) is the most important factor of tangible. Reliability factor is moderate important level ($\overline{X}$=3.33) which fallibility in service ($\overline{X}$=3.83) is the first priority factor in reliability factor. Responsiveness factor is at very important level ($\overline{X}$=3.86) which employees in service provider companies give your prompt service ($\overline{X}$=4.06) is the most important of responsiveness factor. Empathy factor is at moderate important level ($\overline{X}$=3.01) which Service provider has operation operating hours convenient to all its customers ($\overline{X}$=3.12) is the most important factor of empathy. Assurance factor is at moderate important level ($\overline{X}$=3.35) which feeling safe in your transactions with service provider ($\overline{X}$=3.90) is the most important in assurance factor. Although some interesting results were found in this research, the results of different tests yielded varied outcomes. Finding from Hypothesis test, the researcher

found that there is no difference regarding service quality factors (Tangible, Reliability, Responsiveness, Empathy and Assurance) between Amata Industrial Estate area and Leam Chabange Industrial Estate area. Thus, both areas are the same service quality factors in make decision to select and outsourcing logistics service provider. Finding from Hypothesis test, the researcher found that there is no difference regarding service quality factors (Tangible, Reliability, Responsiveness, Empathy and Assurance) between Amata Industial Estate area and Leam Chabange Industrial Estate area. Thus, both areas are the same service quality factors in make decision to select and outsourcing logistics service provider.

Although some interesting results were found in this research, the results of different tests yielded varied outcomes. Thus, there are still improvements that can be made for future research. Firstly, five dimensions of SERVQUAL is still unresolved issue when applied to studying service quality factor of logistics service provider in Thailand. The items related to expectations and perceptions might be too general for such a study. Also, in fact that manufacturer is required to respond to both expectations and perceptions of service quality at the same time could detract from the instrument's validity and reliability. While expectations might be always higher than perceptions. Thus, yielding a position gap between them. It is desirable to determine a threshold value for such a gap. The threshold value will help to differentiate between an acceptable and unacceptable service quality that need to be improved. Each logistics service provider could determine the threshold value based on customer need.

Based on the data analysis in this study the following statement can be describe

the importance service quality factor that customer would like logistics service provider to support which is "Tangible" related the physical facilities and appearance of personal characteristics. Tangible characteristics of service quality are concerned with the appearance of employees, physical facilities and other facilities.

Recommendation

The majoring limitation of this study are as following:

1. The study was conduct on a limited number of entrepreneurs in Amata Industrial Estrate and Leam Chabang Industrial Estate.

2. The study represents expectation and perception of the service quality factors at Amata Industrial Estrate and Leam Chabang Industrial Estate only

3. SERVQUAL, as a one-dimension instrument modified for the purpose of this study might not have been the most valuable instrument to measure expectations and perceptions of service quality factors.

4. Collecting respondents' data on expectations and perceptions of service quality at the same time could have compromised the reliability of the data.

5. The researcher suggests emphasizing on qualitative research and focus group interview methodology from both automotive companies and logistics providers in order to understand more deeply about their attitude and suggestion. There is need to develop a more valued and reliable instrument to measure service quality factors. SERVQUAL could serve as the basis for such new instrument.

With all the above limitation, the study provides a significant comparison of service quality factors between Amata Industrial Estrate and Leam Chabang Industrial Estate.

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