

Factors affecting the choice of parcel transportation services Parcel carriers in Rayong Province

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Abstract

This research aims to (1) study the factors of transportation services (7R) that affect the choice of private parcel delivery companies in Rayong Province, (2) study the quality of service that affects the choice of private parcel delivery companies in Rayong Province, and (3) study the behavior of using services that affect the choice of private parcel delivery companies in Rayong Province. This research is a quantitative research using a questionnaire to collect data via Google forms. The sample size of customers who have used the services of general road freight service providers in Rayong Province is 398 people, which were obtained from purposive sampling. The sample size was calculated according to Yamane's formula. Data were analyzed using the mean and standard deviation. The results of the research found that the overall opinion on the quality of service that affects the choice of private parcel delivery companies in Rayong Province is at a high level. Keywords: Service quality, Service selection, 7Rs transportation

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1. Introduction

In the present day, the private parcel delivery business has been experiencing rapid growth due to changes in consumer behavior driven by the expansion of e-commerce and online shopping. This has led to a continuous increase in demand for parcel delivery services. Consumers have various options for selecting private courier services, each of which employs different marketing strategies and unique selling points to attract customers.

Rayong Province is one of the key economic centers in Thailand, with a growing online business sector as well as small and medium-sized enterprises (SMEs) that heavily rely on private parcel delivery services. However, with the increasing number of service providers, consumers must consider several factors before making a decision, such as delivery speed, service fees, service quality, reliability, and technological features that facilitate parcel tracking.

Therefore, studying the factors influencing the choice of private parcel delivery services in Rayong Province is crucial for understanding consumer behavior and service preferences. The findings can serve as a guideline for improving service quality among private courier companies and help online businesses and SMEs select the most suitable and cost-effective delivery services.

2. Research Objectives

1. To study the transportation factors (7Rs) influencing the choice of private parcel delivery services in Rayong Province.
2. To examine the service quality factors affecting the selection of private parcel delivery companies in Rayong Province.
3. To analyze consumer behavior influencing the choice of private parcel delivery services in Rayong Province.

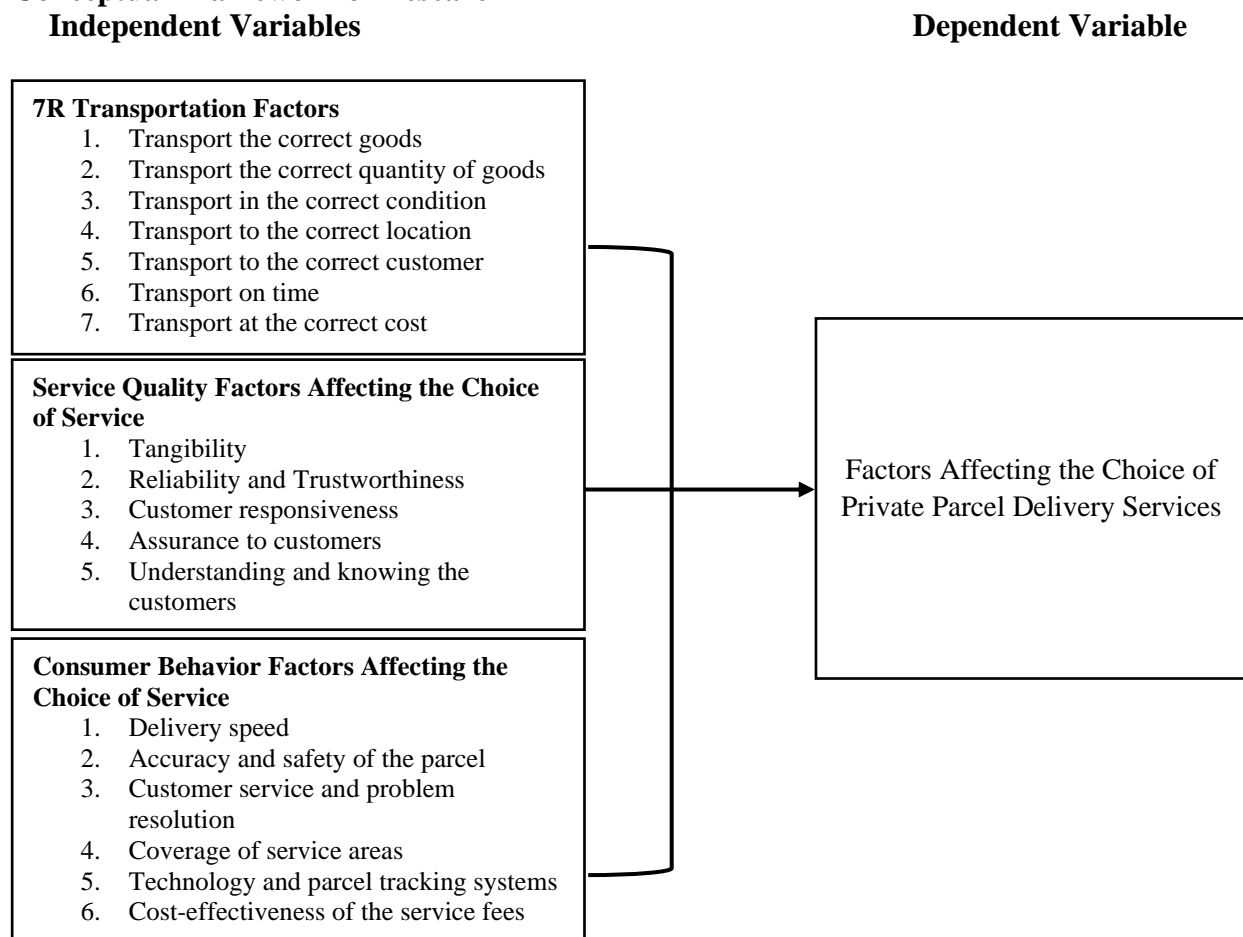
3. Research Hypotheses

Hypothesis 1: Transportation factors (7Rs) have an impact on the choice of private parcel delivery services in Rayong Province.

Hypothesis 2: Service quality affects the choice of private parcel delivery services in Rayong Province.

Hypothesis 3: Consumer behavior influences the choice of private parcel delivery services in Rayong Province.

Conceptual Framework of Research



4. Related Literature

4.1 Concepts and Theories on Service Quality

The SERVQUAL model by Parasuraman, Zeithaml, & Berry (1988) is one of the tools used to measure service quality, considering five key dimensions. These can be applied to evaluate the quality of private parcel delivery companies as follows:

1. **Reliability:** The ability to provide accurate, consistent, and on-time service. Customers receive their parcels on time without errors or losses. The company maintains clear standards and can consistently uphold service quality.
2. **Assurance:** Customers have confidence in the company's service. Employees are knowledgeable, competent, and provide accurate information. There is a guarantee system for products in case of loss or damage.
3. **Tangibles:** The tools, equipment, and technology used in the service, including transport vehicles, staff, and service points, are clean and professional. The parcel tracking system is easy to use.
4. **Empathy:** Providing service with care and understanding, meeting the needs of customers. The company offers multiple contact channels such as Call Center, Chatbot, and Line Official to support all customer segments, whether individual or large businesses.
5. **Responsiveness:** The speed of service delivery and problem resolution. The company has an automatic parcel status notification system and provides assistance to customers when problems or delivery errors occur.

4.2 Concepts and Theories on 7Right Logistics (7R)

S. Sudalaimuthu & S. Anthony Raj (2009) describe 7Right Logistics (7R) as follows:

1. **Right Product:** The correct product is delivered, with the product meeting the required quality or specifications as demanded by the customer.
2. **Right Quantity:** The correct quantity is delivered, with the quantity matching the customer's requirements, neither too much nor too little. Coordination with the warehouse is necessary.
3. **Right Condition:** The product is delivered in the correct condition, without damage such as breaks, cracks, or tears.
4. **Right Customer:** The product is delivered to the correct recipient, with services that meet or exceed customer expectations, leading to satisfaction. This could include product guarantees, after-sales service, or providing replacement equipment during repairs.
5. **Right Place:** The product is delivered to the correct location, as specified by the customer. The delivery location must be clearly identified, including the address, contact name, and phone number to ensure the product arrives at the right place.
6. **Right Time:** The product is delivered at the correct time, according to the agreed schedule. The delivery time (Lead Time) must be precise, neither too early nor too late. Timely delivery is critical to customer satisfaction and the reliability of the organization.
7. **Right Cost:** The cost of delivery must be appropriate for the product's weight, size, and quantity. This may also include insurance for the product during transit.

Figure 1: 7Rs (7 Rights of Logistics)



4.3 Concepts and Theories on Consumer Behavior in Using Parcel Delivery Services

Surapun Phayomyam (2002, p. 18) defines behavior as actions that are triggered or influenced by various stimuli. These actions or behaviors occur after a person has processed, refined, and intentionally decided to carry out actions that can be perceived and recognized by others. It is evident that behaviors can vary significantly even when motivated by the same cause or purpose. The way behavior is exhibited may differ depending on the individual, time, place, or situation. This difference occurs because every action of a person with normal physical condition goes through a thinking and decision-making process that involves emotions and feelings, which in turn causes everyone's behavior to change or adapt according to the relevant situation.

Since behavior arises from such processes, it can be divided into three parts:

1. The expression or gestures (acting)
2. The thoughts regarding the behavior (winking)
3. The feelings present at that moment (feeling)

4.4 Concepts and Theories on Decision-Making in Using Parcel Delivery Services

Kotler & Keller (2006) describe the consumer decision-making process for purchasing goods as comprising five steps, starting from the event that creates a need to the event after the purchase. The key steps are summarized as follows:

1. **Problem Recognition:** The buying behavior begins when the consumer experiences a need, which may arise from external stimuli such as advertisements that grab attention, or from

seeing others using the product. Additionally, internal stimuli, such as feelings of hunger or the need for essential items, can also trigger the recognition of a need.

2. **Information Search:** Once the consumer has a need, the next step is searching for information about the desired product. This process may not occur if the consumer has a high urgency for the product and can buy it immediately. However, if the need is at a normal level and the product is not readily available, information search will occur as part of the decision-making process.

3. **Evaluation of Alternatives:** After obtaining information, the consumer understands and evaluates various alternatives. This involves deciding which brand or product to choose. Consumer decision-making approaches vary according to the situation and the available options. Marketers should understand how consumers evaluate alternatives, as this process is not straightforward and differs for every person and situation.

- **Attributes and Benefits:** Consumers consider the benefits and features of the product and how well they fulfill their needs.
- **Degree of Importance:** The importance of product features often outweighs uniqueness. Therefore, brand trust can always change.
- **Brand Beliefs:** Consumers evaluate the trustworthiness of the brand based on past experiences.
- **Utility Function:** Consumers assess how satisfied they are with various brands by comparing the product features with the satisfaction they expect, which makes decision-making easier.
- **Evaluation Process:** This method uses various factors such as satisfaction, brand trust, and product features to compare and rank products to determine the highest-scoring product before making the final purchase decision.

4. **Purchase Decision:** After evaluating alternatives, the consumer prioritizes their choices. The next step is considering the attitudes of others toward the purchase (Attitudes of Others) and unexpected factors (Unexpected Situations). Even though the consumer may have evaluated and chosen a product or brand, it does not guarantee a purchase will occur because these factors may introduce risks that affect the consumer's decision.

5. **Post-Purchase Behavior:** After the purchase, the consumer experiences the product, which may lead to satisfaction or dissatisfaction. If the consumer is satisfied and recognizes the benefits of the product, it may result in repeat purchases or recommendations to others. However, if the consumer is dissatisfied, they may decide not to buy the product again in the future, which can negatively impact sales as word-of-mouth may influence others not to purchase the product.

5. Research Methodology

This research employs quantitative research design, collecting data from customers who use private parcel delivery services in Rayong Province through a questionnaire. The questionnaire is divided into three sections: the 7Rs of logistics factors, service quality factors, and service usage behavior. A 5-point Likert scale was used for measurement. Data collection includes both primary data from a questionnaire distributed to a sample group of 398 respondents and

secondary data from reliable sources. Data analysis was performed using statistical software, first verifying the completeness of the data before conducting descriptive statistics and multiple regression analysis to examine the relationships between variables. This approach allows for hypothesis testing and systematic conclusion formulation.

6. Research Findings

The study found that a total of 389 respondents participated in the survey. The majority were women, aged between 21-40 years, with a bachelor's degree, and most were employed in companies as delivery staff.

In examining the factors affecting the choice to use parcel delivery services such as KEX Express, Flash Express, and J&T Express in Rayong Province, the findings show that the overall service quality was rated highly. The factors were categorized into the 7Rs of logistics, service quality, and service usage behavior, and the results, ranked from high to low, were as follows:

- **7Rs Logistics Factors:** Overall, the 7Rs factors were rated highly. Specific aspects such as "correct product delivery," "correct quantity," "correct condition," "delivery to the correct customer," "on-time delivery," and "correct cost" all had high average scores. However, "delivery to the correct location" had the lowest rating.
- **Service Quality Factors:** The overall service quality was rated highly. Among the specific factors, the respondents strongly agreed with aspects such as "reliability and trust," "responsiveness to customers," and "tangibility." "Assurance" and "empathy" received similarly high ratings, while "understanding the customer" had the lowest rating.
- **Service Usage Behavior:** The overall opinion was rated highly, with factors like "speed of delivery," "accuracy and safety of parcels," "customer service and problem-solving," "technology and parcel tracking system," "coverage of service area," and "value for money" all receiving similar high ratings.

The study found that the factors in 7Rs logistics, service quality, and service usage behavior had a positive relationship and significantly influenced the choice of using private parcel delivery services like KEX Express, Flash Express, and J&T Express in Rayong Province. The statistical results supported all three research hypotheses:

- **Hypothesis 1:** The 7Rs logistics factors affect the choice to use private parcel delivery services in Rayong.
- **Hypothesis 2:** Service quality affects the choice to use private parcel delivery services in Rayong.
- **Hypothesis 3:** Service usage behavior affects the choice to use private parcel delivery services in Rayong.

7. Summary of Research Findings and Discussion

The study found that the level of service quality, including factors like **reliability, trust, responsiveness to customers, tangibility, assurance, and understanding and familiarity with customers**, was rated highly. This reflects the current business focus on improving service quality. Specifically, service quality is developed through care, trust, and responsiveness to customer needs. When a high-quality service is provided, customers are more likely to choose

private parcel delivery services. Therefore, in service development, it is essential to focus on reliability, trust, customer responsiveness, tangibility, assurance, and understanding, as these factors will enhance the efficiency of parcel delivery services. This finding is consistent with previous research by Paphinda Khamanee & Sira Sriyothin (2022) and Nichapat Bua Kaew & Kritsada Chiawattanasuk (2019).

Additionally, the study found that **service quality, reliability, trust, customer responsiveness, tangibility, assurance, and understanding** have a positive relationship and significantly impact the choice of using private parcel delivery services like **KEX Express, Flash Express, and J&T Express** in Rayong. This is in line with the proposed hypotheses. When private parcel delivery services provide high-quality service in these areas, it reflects that the quality of service meets customer expectations. High service quality ultimately improves the efficiency of parcel transportation. This supports findings from Athrawadee Phunyam, Piyawat Boonchoen, Jenjira Srijampa, and Kittichai Athikulrat (2024), as well as Bulaphon Boonduang (2021).

8. Recommendations

8.1 Recommendations for Applying the Research Findings

1. The company should prioritize improving employees' communication skills and develop multiple communication channels. Additionally, the company should enhance coordination methods and provide printed materials to thoroughly communicate information to customers. This will help ensure customer satisfaction in an appropriate manner.
2. The company should focus on punctuality, ensuring that goods are delivered to their destinations on time. Employees should be able to deliver services quickly and effectively, demonstrating good communication with customers regarding transportation services. Moreover, the company should invest in securing equipment for the goods to prevent any damage during transport.

8.2 Recommendations for Future Research

1. Future studies should explore other factors that may affect the efficiency of product delivery in companies like **Raksamphung Logistics Co., Ltd.**, such as information technology systems, personnel, marketing mix, etc. The study should focus on understanding customer needs even more comprehensively.
2. There should be further research using qualitative methods. Since customer satisfaction involves certain factors that may not be measurable using quantitative research techniques, qualitative studies can provide a deeper understanding. Furthermore, customer satisfaction can change over time due to various factors, including business environment, market trends, competition, and other related influences.

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