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# FACTORS INFLUENCING THE QUALITY OF RELATIONSHIPS BETWEEN ENVIRONMENTAL SERVICE PROVIDERS AND THE BUSINESS PERFORMANCE OF INDUSTRIAL CUSTOMERS IN HO CHI MINH CITY

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# CHAPTER 1. RESEARCH PROBLEM OVERVIEW

## 1.1. THE NECESSITY OF THE RESEARCH PROBLEM
### 1.1.1. Practical Context

Vietnam's economy is witnessing a strong growth surge due to flexible foreign investment policies, especially marked by the stable annual GDP growth. The General Statistics Office's report for 2022 indicates that Vietnam's economy quickly recovered from difficulties with agriculture, forestry, and aquaculture increasing by 3,36%, industry and construction by 7,78%, and services by 9,99%. Vietnam now has 407 industrial parks spread across 61 of the 63 provinces with a total area of about 125,000 hectares. These industrial parks have attracted more than 11,000 FDI projects with a total investment of over 230 billion USD and 10,200 domestic investment projects with a total capital of up to 254 trillion VND. These enterprises have contributed to creating about 50% of the national export value, helping Vietnam move from a trade deficit to trade balance and surplus, and significantly contributing to the state budget revenue (Duong Ngoc 2023 and Khanh Vy & Hong Vinh 2024). However, the process of industrialization and modernization, along with the development of trade and service activities, has caused environmental pollution problems, especially in industrial zones and densely populated areas like Ho Chi Minh City.

To manage society, the government has issued a series of regulations on environmental protection work and regularly conducts monitoring, inspection, and audits of pollution control in enterprises under the legal framework; aiming especially at enhancing the voluntary spirit of enterprises in environmental protection because only when enterprises recognize their role and responsibility, the environmental protection work can truly bring value.

Thus, to achieve this, it is necessary to conduct research on the quality of relationships in the environmental services sector to clearly show industrial customers (enterprises using environmental services) that "protecting the environment in enterprises increases financial income and brand awareness"; proving to customer enterprises that in the long term, it will save fuel, reduce operating

costs, possibly lead to reduced product costs, enhance competitive advantage, thereby improving the "business results" of customers.

In summary, researching the quality of relationships to develop the environmental services sector contributing to environmental protection in Vietnam in general and Ho Chi Minh City in particular is extremely necessary and useful.

### 1.1.2. Theoretical Context

Statement by Hoang Le Chi (2013, page 37): "In developing economies, especially transitioning economies, business relationships have significant differences compared to developed economies. Reviewing previous studies, it is evident that research on the relationship quality model in transitioning economies is very rare"; simultaneously, Athanasopoulou (2009, page 605) also suggested, "For the concept of relationship quality to be more comprehensive, it needs to be studied in different industries and cultures." Relationship Quality (RQ) as a topic that emerged from the marketing field but "has attracted the attention of scholars and researchers from different research fields over the past two decades" (Leonidou et al., 2013). This may be related to "the desire and need of businesses to develop mutually beneficial and successful relationships with their collaborators and partners" (Athanasopoulou, 2009).

Researchers have conducted empirical studies on RQ, leading to the emergence and development of diverse theoretical frameworks or models and different structures. These frameworks and structures relate to identifying factors contributing to the success of RQ and characteristics that make RQ highly valued by stakeholders.

In conclusion, based on the results of RQ studies and their subsequent research proposals on RQ, "exploring relationship quality" is a currently urgent research topic.

### 1.1.3. Background Theory and Gaps in Relationship Quality Theory

Since business relationships between enterprises are complex, explaining them with a single theory is limited and lacks objectivity. Instead, combining different theories to analyze the diverse aspects of business relationship quality is necessary. This combination allows examining the relationship from multiple perspectives, thereby providing deeper and more comprehensive explanations. Moreover,

the multidimensional application of theories also contributes to the development and refinement of relationship quality theory.

In conclusion, adhering to the above viewpoint, this dissertation will base on the suggestion to combine two theories: Transaction Cost Theory (TCE) and Gronroos's Service Quality Theory (2007) as the foundation for researching relationship quality in the environmental services industry.

### 1.1.4. The Necessity of Continuing Research on Relationship Quality for Industrial Customers in Vietnam

The author identifies that there is a gap that necessitates continued research on B2B relationship quality in the environmental services sector in Vietnam. This involves surveying industrial customers—enterprises utilizing services—and the outcomes of B2B relationship quality being "the business results of industrial customers as service-using enterprises" to demonstrate that "if the relationship quality with the service-providing enterprise is better, then the business outcomes of the service-using enterprise are higher."

In summary, to delve deeper into the nature of influencing factors and the results received by partners from relationship quality in the environmental services sector in Vietnam is essential. This is also a valid reason for the author to undertake this research in their dissertation. Therefore, based on the practical context and theoretical background, the author finds this research problem necessary and useful. It is currently being directed by scientists and managers both domestically and internationally, especially in the field of environmental services. Hence, the author decided to choose the topic "**Factors Affecting the Relationship Quality of Environmental Service Providers and the Business Performance of Industrial Customers in Ho Chi Minh City**".

### 1.2. RESEARCH QUESTIONS

Question 1: What factors influence the relationship quality between environmental service providers and industrial customers, and how does relationship quality affect the business performance of industrial customers in Ho Chi Minh City?

Question 2: What is the extent of influence of those factors on relationship quality, and how does relationship quality influence the business performance of industrial customers in Ho Chi Minh City?

Question 3: What management implications are appropriate to develop relationship quality and what management implications to enhance the business performance of industrial customers?

## 1.3. RESEARCH OBJECTIVES

**- General Objective:** The general objective of the study is to construct and verify the relationship between factors influencing components of relationship quality and how relationship quality affects the business performance of industrial customers. This, in turn, will propose several management implications for developing relationship quality and enhancing the business performance of industrial customers who use environmental services.

**- Specific Objectives:**

(1) To overview related studies on relationship quality to synthesize and form a theoretical basis to identify the fundamental factors influencing relationship quality and the components of relationship quality affecting the business performance of industrial customers;

(2) To develop hypotheses and a research model using qualitative and quantitative research methods to test the influence of major factors on relationship quality and how components of relationship quality affect the business performance of industrial customers;

(3) To propose some recommendations aimed at helping environmental service providers and industrial customers develop relationship quality and enhance the business performance of industrial customers.

## 1.4. RESEARCH AND SURVEY SUBJECTS

### 1.4.1. Research Subjects

The research subjects are RQ and the factors influencing RQ between environmental service providers and industrial customers; RQ and the business performance of industrial customers in HCM City.

### 1.4.2. Survey Subjects

Survey subjects are business owners or legal representatives of industrial customers—enterprises using environmental services. They could be CEOs/managers or CFOs/accounting managers or directors/heads of departments or persons in charge; or leaders of

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environmental protection teams within enterprises using environmental services in industrial zones and export processing zones in Ho Chi Minh City.

## 1.5. RESEARCH SCOPE

### 1.5.1. Content Scope

(1) Factors influencing the relationship quality between environmental service providing enterprises and industrial customers

(2) The impact of relationship quality on the business performance of industrial customers as enterprises using environmental services.

### 1.5.2. Spatial Scope

Surveying industrial customers as enterprises using environmental services in industrial zones and export processing zones in HCM City.

### 1.5.3. Temporal Scope

To carry out and complete the research process, the timeframe of the dissertation was conducted from 2019 to 2022.

Data are primary data collected through in-depth interviews and surveys via detailed questionnaires conducted from May 2022 to November 2022.

## 1.6. RESEARCH METHODOLOGY

The research method combines qualitative and quantitative methods: (step 1) qualitative research; (step 2) quantitative research.

## 1.7. RESEARCH SIGNIFICANCE

### 1.7.1. Theoretical Significance

Firstly, it contributes to completing the theoretical framework on relationship quality among businesses in the environmental service sector, especially in the context of the business environment culture in a transitioning and developing country.

Secondly, it uses Transaction Cost Theory (TCE) and Service Quality Theory (SQ) to form factors influencing relationship quality in the research context of the environmental service industry.

Thirdly, the study has adjusted the scale for the components of the theoretical model and tested the measurement model based on market data in Vietnam. Thus, contributing to supplementing and completing the scale for concepts when researching in the field of environmental services.

### 1.7.2. Practical Significance

**Significance for Service Providing Enterprises:** It helps policymakers and EMS enterprise managers have a more accurate and comprehensive view of the factors affecting relationship quality in the field of EMS, based on which to propose appropriate solutions to build and increase relationship quality for enterprises in the field of EMS in particular and service sectors in general. Additionally, the research results can also be a reference for other studies on relationship quality in business.

**Significance for Service Using Enterprises:** It helps managers of enterprises using environmental services have a more comprehensive view of the factors affecting relationship quality in the field of EMS in particular and service sectors in general, based on which to propose appropriate solutions to build and strengthen relationship quality to improve business results because "using environmental services means protecting the environment in enterprises increases financial ncome, increase brand awareness"; helping enterprises using environmental services (protection) in the long run will save fuel, reduce operating costs which could lead to reduced product costs, enhance competitive advantage, thereby improving "business results".

### 1.8. DISSERTATION STRUCTURE

The main content of the dissertation consists of the following five parts:

Chapter 1. Overview of the Research Problem
Chapter 2. Theoretical Foundation and Research Model
Chapter 3. Research Design
Chapter 4. Research Results and Discussion
Chapter 5. Conclusions and Managerial Implications

# CHAPTER 2.
# THEORETICAL BASIS AND RESEARCH MODEL

## 2.1. INDUSTRIAL CUSTOMERS
### 2.1.1. Concept of industrial customers

Industrial customers, also known as business customers or industrial customers in English, are organizations with purchasing needs for their operations and production processes.

Based on the usage of products or services in their operations, businesses in the industrial market are classified into types such as manufacturing enterprises, commercial organizations, and governmental organizations.

### 2.1.2. Buying Behavior of Industrial Customers

Differences between the buying behavior of industrial customers and that of consumers include: more direct purchasing, lower purchasing frequency, and higher order value.

### 2.1.3. Mutually Beneficial Partner Roles

Mutually beneficial B2B partnerships not only offer new business opportunities but also foster mutual support, respect, and fairness in all transactions. These are crucial factors for building and strengthening B2B relationships, serving as a solid foundation for sustainable success in today's competitive market.

## 2.3. RELATED THEORETICAL FRAMEWORK
### 2.3.1. Transaction Cost Theory

Choosing suppliers is crucial for organizations to reduce operating costs and improve efficiency. Selecting suitable suppliers to provide affordable materials and high-quality services is essential for meeting customer demands and ensuring product or service delivery.

### 2.3.2. Service Quality Theory

Service quality theory, built upon research on product quality and customer satisfaction, defines service quality as the overall assessment of excellence by customers. While researchers agree on the significant role of service quality in satisfaction and business effectiveness, there's no consensus on its measurement.

## 2.2. RELATIONSHIP QUALITY (RQ)
### 2.2.1. Concept of Relationship Quality

Relationship quality refers to the level of engagement, commitment, trust, and satisfaction aiming for long-term relationships between parties. It is assessed based on the mutual perception of both partners in the relationship.

### 2.2.2. Measurement of Relationship Quality

*2.3.2.1. Trust*

*2.3.2.2. Satisfaction*

*2.3.2.3. Commitment*

### 2.2.3. B2B Relationship Quality

In general, B2B relationships within the industrial environment can exist between suppliers and customers. In the context of industrial B2B, it may involve raw material manufacturers, raw material processing, packaging organizations, labeling organizations, service organizations, industrial equipment, and component suppliers. It can take the form of supplying goods or services produced by manufacturers to customers…

### 2.2.4. Factors Influencing Relationship Quality

This study is based on Transaction Cost Economics (TCE) and Service Quality (SQ) theories to identify factors influencing relationship quality.

### 2.2.5. Outcomes of Relationship Quality

Anthanasopoulou (2009) suggests that the outcomes of relationships between organizations should be reflected in business performance. Therefore, this criterion will be used to assess typical Vietnamese studies.

## 2.4. OVERVIEW OF RESEARCH LITERATURE ON RELATIONSHIP QUALITY

### 2.4.1. Review of Relevant Previous Studies

From the literature review, the author observes:

When the surveyed entities are businesses using services, the results of relationship quality studies mostly focus on "customer loyalty"; whereas, when the surveyed entities are service providers, the results mostly revolve around the "business performance of the service provider."

Thus, the author identifies a research gap that needs further exploration: investigating industrial customer targets and the outcome

of B2B relationship quality as "the business performance of industrial customers".

### 2.4.2. Research Gaps

(1) Studying B2B relationship quality in the case of environmental service industries in Vietnam;

(2) This study combines the Transaction Cost Economics (TCE) and Service Quality (SQ) theories for better explanations of business relationships;

(3) In this thesis, the author surveys customer targets as businesses using services and the outcome of this relationship quality is "the business performance of businesses using services".

## 2.5. RESEARCH CONCEPTS AND HYPOTHESES FORMATION

### 2.5.1. Application of Transaction Cost Theory

The study discusses three aspects of transaction costs: Positive opportunity behavior, Long-term relationship culture, Legal environment.

*H1: If positive pportunistic behavior is better (businesses aim for mutual benefits), then relationship quality is better.*

*H2: If the long-term relationship culture is higher, then relationship quality is better.*

*H3: If the regulatory environment is better, then relationship quality is better.*

### 2.5.2. Application of Service Quality Theory

The primary aspect to study the impact of service quality on RQ is: Human and Facilities.

*H4: If humans are better, then relationship quality is better*

*H5: If facilities are better, then relationship quality is better.*

*H6: If relationship quality is better, then the business performance of the enterprise is higher.*

### 2.6. RESEARCH MODEL

### 2.6.1. General Research Model

### 2.6.2. Proposed Research Model

Based on the arguments above, the author presents the research model as follows:

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**Research Hypotheses:**

*H1: If positive Oportunistic behavior is better, then RQ is better.*

*H2: If the long-term relationship culture is higher, then RQ is better.*

*H3: If the regulatory environment is more stable, then RQ is better.*

*H4: If humans are better, then RQ is better.*

*H5: If facilities are better, then RQ is better.*

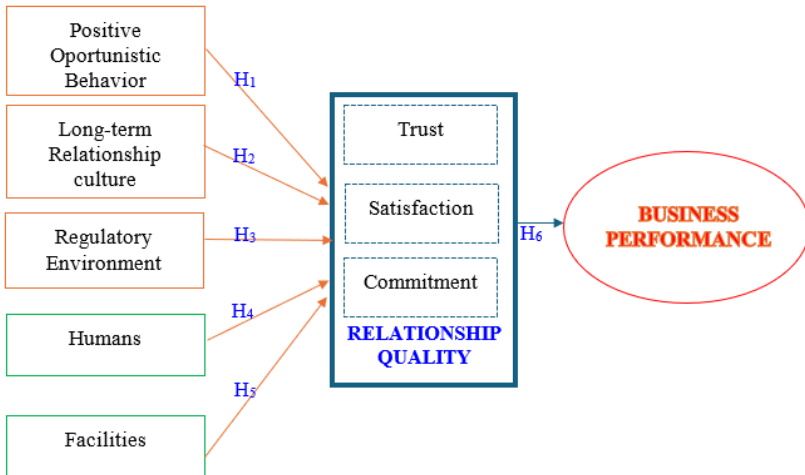*H6: If RQ is better, then business performance is higher.*



Figure 2.6. Research Model
*(Source: Self-synthesis and proposal by the author, 2022)*

# CHAPTER 3. RESEARCH DESIGN

## 3.1. SELECTION OF RESEARCH METHOD

The research process consists of three stages as follows: Stage 1: Theoretical overview; Stage 2: Preliminary research; Stage 3: Formal research.

## 3.2. PRELIMINARY QUALITATIVE RESEARCH

### 3.2.1. Expert Interviews to Identify Research Models

### 3.2.2. Group Discussions to Confirm Research Models

The primary group for this study's discussions comprises 05 education experts (Ph.D.) with experience in economics/business management fields, working at universities in Vietnam. They possess substantial understanding of the author's research area to affirm the influencing factors, components, and outcomes of relationship quality…

## 3.3. PRELIMINARY MEASUREMENT SCALES

The selected scales in this study have been validated globally and adjusted to fit Vietnam. The author utilizes a 5-point Likert scale, ranging from 1 as "completely disagree" to 5 as "completely agree". The study focuses solely on industrial customers, i.e., businesses using environmental services, through questions measuring the partner's perception based on the surveyed individual's perception, referencing research by Wilson & Nelson (2000), Nguyen Thi Mai Trang (2002, 2004, 2014), Hoang Le Chi (2012), Nguyen Thi Thanh Van (2018)…

### 3.3.1. Positive Opportunity Behavior

### 3.3.2. Long-term Relationship Culture

### 3.3.3. Regulatory Environment

### 3.3.4. Humans

### 3.3.5. Facilities

### 3.3.6. Trust

### 3.3.7. Satisfaction

### 3.3.8. Commitment

### 3.3.9. Business Performance

## 3.4. QUALITATIVE RESEARCH RESULTS

After constructing the preliminary measurement scales, the author evaluates their reliability and content validity through the third

round of qualitative research, consisting of interviews and discussions with 14 experts:

### 3.4.1. Design of Preliminary Questionnaire

Interviews and discussions are conducted with 14 experts: 09 directors/deputy directors of environmental services enterprises and 05 education experts (Ph.D.) in economics/business management fields. The experts select their viewpoints on each question, and the author moderates group discussions sequentially on each factor to ensure content consistency until completion.

### 3.4.2. Results of Qualitative Research

Table 3.10. Formal Measurement Scale

| CONTENT | SOURCE |
|---|---|
| **1. Positive Opportunity Behavior (OB)** | |
| OB1. Our company often keeps its promises to the environmental company. | Knemeyer & Murphy (2004); Nguyen Thi Thanh Van (2018) |
| OB2. The environmental company often keeps its promises to our company. | |
| OB3. Our company often provides a comprehensive and honest view of ongoing activities to the environmental company. | Nguyen Thi Mai Trang et al. (2004); Nguyen Thi Thanh Van (2018) |
| OB4. The environmental company often provides a comprehensive and honest view of ongoing activities to our company | |
| **2. Long-term Relationship Culture (LRC)** | |
| LRC1. Our company tends to continue choosing its partners because they believe that the prices offered by the environmental company are always the most reasonable. | Ganesan (1994); Tai & Chan (2001); Nguyen Thi Thanh Van (2018) |
| LRC2. Our company tends to prioritize quality over price when choosing the environmental company. | Ryu & Cook (2005); Nguyen Thi Thanh Van (2018) |
| LRC3. Our company usually does not want to change to another environmental company even if the environmental company occasionally fails to fulfill obligations | Ganesan (1994); Tai & Chan (2001); Nguyen Thi Thanh Van (2018) |
| **3. Regulatory Environment (RE)** | |
| RE1. The policy mechanism in the environmental service industry is supported by the Party and the State, promoting sustainable development. | Vo & Baumgarte (2000); Nguyen Thi Thanh Van (2018); |

| CONTENT | SOURCE |
|---|---|
| | The author adjusted/ supplemented. |
| RE2. The state has perfected the system of policies and laws on environmental protection, prioritizing environmental education and communication. | Agboli & Ukaegbu (2006); Nguyen Thi Thanh Van (2018); |
| RE3. State management activities on environmental protection have been carried out effectively and efficiently | The author adjusted/ supplemented. |
| **4. Human Resources (HU)** | |
| HU1. The personnel of the environmental company are always dedicated, understanding, empathetic, ready to serve, and capable of resolving all service-related issues for our company. | *The author adjusted/ supplemented this observed variable according to the management implications proposed in the study by Hoang Le Chi, 2013.* |
| HU2. The personnel of the environmental company always communicate and interpret procedures clearly, simply, logically, and reliably; they also provide and share timely information with our company. | |
| HU3. The personnel of the environmental company have professional communication skills and can handle issues promptly and accurately. | |
| HU4. The personnel of the environmental company have extensive experience, are skilled in their profession, and regularly update their scientific and technological knowledge | |
| **5. Facilities (FA)** | |
| FA1. The trading premises of the environmental company are neat, clean, well-maintained, and emphasize brand promotion. | *The author adjusted/ supplemented this observed variable according to the management implications proposed in the study by Hoang Le Chi, 2013.* |
| FA2. The facilities of the environmental company have simple, clear, and convenient service instructions and procedures. | |
| FA3. The environmental company possesses modern technology and always embraces advanced technology. | |
| FA4. The equipment of the environmental company is modern, efficient, well-maintained, and reliable | |
| **6. Trust (TR)** | |

| CONTENT | SOURCE |
|---|---|
| TR1. We believe that the environmental company wants to be sincere with our company. | Swar et al. (2012); Nguyen Thi Thanh Van (2018) |
| TR2. We feel that the environmental company wants to make decisions that benefit our company in any situation. | |
| TR3. Our company is willing to assist the environmental company without expecting compensation | |
| **7. Satisfaction (SA)** | |
| SA1. Our company is satisfied with the trading methods of the environmental company. | Nguyen Thi Mai Trang et al. (2004); Nguyen Thi Thanh Van (2018) |
| SA2. Our company is satisfied with the quality of service provided by the environmental company. | Chu & Wang (2012); Nguyen Thi Thanh Van (2018) |
| SA3. Our company is satisfied with the prices offered by the environmental company | |
| **8. Commitment (CO)** | |
| CO1. Our company and the environmental company tend to commit to becoming long-term allies. | Nguyễn Thị Mai Trang et al. (2004); Morgan & Hunt (1994); Nguyen Thi Thanh Van n (2018) |
| CO2. Our company does not view the environmental company as just a partner but aims to be an integral part of our company. | Chu & Wang (2012); Nguyen Thi Thanh Van (2018) |
| CO3. Our company senses that the environmental company also considers us an important part of their company | |
| **9. Business Performance (PER)** | |
| PER1. Our company's profits have increased recently due to close cooperation with the environmental company. | Chu & Wang (2012); Han et al. (2009); Nguyen Thi Thanh Van (2018) |
| PER2. Our company's revenue growth has increased recently due to close cooperation with the environmental company. | Panayides (2007); Cho et al. (2008) |
| PER3. Our company's market share has increased since establishing a good relationship with the environmental company. | Han et al. (2009); Nguyen Thi Thanh Van (2018) |

| CONTENT | SOURCE |
|---|---|
| PER4. Our company's profitability has increased since establishing a good relationship with the environmental company | Panayides (2007); Cho et al. (2008) |

*(Source: synthesized/adjusted by the author after consulting with experts)*

### 3.5. FORMAL QUANTITATIVE RESEARCH

### 3.5.1. Research Sample

*3.5.1.1. Determining the Sample Size*

The study distributed a total of 500 survey questionnaires.

*3.5.1.2. Sampling Method*

Convenience sampling method was used, with the surveyed sample being industrial customers - businesses in 14/14 industrial parks/ export processing zones in Ho Chi Minh City (HCMC); the author used the Cochran formula based on confidence level and margin of error. Thus, the surveyed sample of approximately 271 businesses will represent the market of 877 businesses with a confidence level of 95% and a margin of error of 5%. Therefore, the author chose $n \geq 310$ survey samples for this study.

*3.5.1.3. Investigation Method*

Due to the difficulty in accessing the surveyed subjects, the author used the method of sending questionnaires directly to interview subjects.

*3.5.1.4. Surveyed Subjects*

Middle to senior management: legal representatives, they could be CEOs/managing directors, or CFOs/accounting managers, or directors/department heads, deputy department heads in charge; or heads of environmental protection groups.

*3.5.2. Analysis Method and Quantitative Criteria*

Data were evaluated for reliability, exploratory factor analysis, confirmatory factor analysis, and structural equation modeling. In addition, other quantitative techniques were also applied.

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# CHAPTER 4. RESEARCH RESULTS AND DISCUSSION

## 4.1. EVALUATION OF THE ENVIRONMENTAL SERVICES INDUSTRY STATUS

### 4.1.1. Environmental Status in Ho Chi Minh City

According to statistics from the Ministry of Industry and Trade, by the end of 2022, the whole country had a total of about 391 operating industrial parks; among them, there were 290 operating industrial parks, 66 parks under construction, and 35 parks planned for future development. Currently, Vietnam has 407 industrial parks spread across 61/63 provinces and cities. Specifically, HCMC has about 16 export processing zones, industrial parks, and high-tech zones, most of which have invested in centralized industrial wastewater treatment systems and are basically under control. For the 27 planned and constructed industrial clusters, only two active clusters have centralized wastewater treatment systems. In addition to industrial parks, export processing zones, manufacturing facilities, and services... HCMC also controls wastewater discharge from residential areas, stipulating that projects with an area of 20 hectares or more must invest in centralized domestic wastewater treatment systems. According to the latest statistics, the city currently has 42 residential area projects with an area of 20 hectares or more (10 projects are operational), of which 7 projects have built centralized wastewater treatment systems. Most residential area projects with an area of less than 20 hectares do not have wastewater treatment systems and discharge directly into the environment. HCMC is also one of the leading localities in the country in terms of the number of industrial parks. Clearly, the establishment of industrial parks has brought about significant and positive changes to the country's economic structure. However, industrial parks also cause significant pollution, directly affecting the climate, people, and ecosystems.

### 4.1.2. Development of the Environmental Services Industry

Vietnam in general and HCMC in particular are in the process of industrialization and modernization. Participating in international trade agreements will open up opportunities for the development of the environmental services industry. The environmental services

market in Vietnam is still wide open; the demand for high-tech equipment for waste collection, transportation, treatment of waste, wastewater, exhaust gases... presents great opportunities for development. One solution is to study the factors affecting the quality of the relationship between service-providing and service-using businesses. This will help policy makers, enterprise managers have a better understanding of the environmental services sector. From there, appropriate measures can be taken to improve the quality of the relationship, helping the environmental services industry in Vietnam assert its position and meet market demands for environmental protection.

### 4.1.3. Building and Strengthening Relationship Quality

A quality relationship also promotes the development of loyalty and creates conditions for long-term cooperation, minimizes conflicts, and enhances operational efficiency. In addition, close cooperation between service providers and service-using businesses can lead to sharing of expertise, advanced technology, and best practices, enhancing environmental processing capacity and ensuring compliance with the law.

A good relationship also contributes to improving the reputation and image of both parties in the eyes of the public and customers, helping them become pioneers in environmental protection efforts and sustainable development. This is a core factor in building a green economy and creating a better future for the next generation.

### 4.2. DESCRIPTIVE STATISTICS OF THE SURVEY SAMPLE

Table 4.2. Descriptive Statistics of the Survey Sample

| Group | Quantity | Percentage |
|---|---|---|
| **Type of Enterprise** | | |
| Joint ventures | 05 | 1,4 |
| Private enterprises | 21 | 5,8 |
| Limited liability companies | 274 | 76,1 |
| Joint-stock companies | 60 | 16,7 |
| Total | 360 | 100 |
| **Position (Job Title)** | | |
| Business owners | 76 | 21 |
| Chief Executive Officer | 104 | 29 |

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| Group | Quantity | Percentage |
|---|---|---|
| Chief Financial Officer | 72 | 20 |
| Department Heads | 65 | 18 |
| Other positions | 43 | 12 |
| Total | 360 | 100 |
| **Types of Production categorized by Environmental Pollution Level** | | |
| High pollution (Level I) | 56 | 1,4 |
| Medium pollution (Level II) | 42 | 5,8 |
| Low pollution (Level III) | 262 | 76,1 |
| Total | 360 | 100 |
| **Distribution Area (HCMC)** | | |
| Binh Chanh District | 79 | 21,9 |
| Binh Tan District | 77 | 21,4 |
| Tan Binh District | 52 | 14,4 |
| Thu Duc City | 49 | 13,6 |
| Cu Chi District | 39 | 10,8 |
| District 7 | 22 | 6,1 |
| Nha Be District | 21 | 5,8 |
| District 12 | 21 | 5,8 |
| Total | 360 | 100 |

*(Source: Author's data analysis)*

Through the formal quantitative survey, 400 out of 500 distributed questionnaires were collected, achieving a success rate of 80%. After screening, 40 questionnaires were deemed inadequate due to incomplete responses and were therefore excluded. Consequently, 360 valid questionnaires were included for analysis and processing. With 360 valid questionnaires out of a total of 877 enterprises in the 14 industrial parks and export processing zones scattered throughout Ho Chi Minh City, the number of valid questionnaires in each industrial park and export processing zone reached at least 20% of the total number of enterprises (see Table 4.2). Thus, the sample size represented the entire market (360 > 271, see section 3.5.1.2).

**4.3. RESEARCH RESULTS**

**4.3.1. Reliability Assessment Results of the Scale**

According to the statistical data, the Alpha coefficient of the overall scale > 0.8, and the variable-to-total correlation coefficient > 0.3, indicating that no observed variable was excluded**.**

#### 4.3.2. Results of Scale Value Assessment

*4.3.2.1. Results of Initial EFA Component Analysis*

*4.3.2.2. Results of Subsequent EFA Component Analysis*

Variable types HU4 and OB1 were removed because their loading coefficients were less than 0,5.

The factor analysis model was practically significant. Out of the initial 31 observed variables, 2 variables did not meet the requirements in the initial assessment, leaving 29 observed variables combined into 9 meaningful factors: (1) OB, (2) LRC, (3) RE, (4) HU, (5) FA, (6) TR, (7) CO, (8) SA, (9) PER.

#### 4.3.3. Confirmatory Factor Analysis (CFA) Results

*4.3.3.1. Second-order Factor CFA*

Table 4.10. Summary table of second-order factor CFA test results

| Index | Acceptance Threshold | Research Result | Conclusion |
|---|---|---|---|
| Chi-square/df | < 3 | **0,841** | Accepted |
| GFI | > 0,9 | **0,998** | Accepted |
| CFI | > 0,9 | **1,000** | Accepted |
| TLI | > 0,9 | **1,004** | Accepted |
| RMSEA | < 0,05 | **0,000** | Accepted |
| PCLOSE | > 0,05 | **0,996** | Accepted |

*(Source: Author's data analysis)*

Thus, the model demonstrates good fit with the data.

*4.3.3.2. Comprehensive CFA*

Table 4.14. Summary Table of CFA Test Results

| Index | Acceptance Threshold | Research Result | Conclusion |
|---|---|---|---|
| Chi-square/df | 1 - 3 | **1,210** | Accepted |
| GFI | > 0,9 | **0,926** | Accepted |
| CFI | > 0,9 | **0,986** | Accepted |
| TLI | > 0,9 | **0,984** | Accepted |
| RMSEA | < 0,05 | **0,024** | Accepted |
| PCLOSE | > 0,05 | **0,964** | Accepted |

*(Source: Author's data analysis)*

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**Conclusion:** The data indicates that the model is appropriate.

## 4.4. RESULTS OF SEM MODEL ANALYSIS

The SEM model was tested on AMOS using ML (Maximum Likelihood) estimation to estimate the parameters in the model. The results show that the theoretical model fits the survey data, as evidenced by the following indices: Chi-square/df = 1.222; PCLOSE = 1.000; GFI = 0.924; TLI = 0.983; CFI = 0.985; and RMSEA = 0.025.
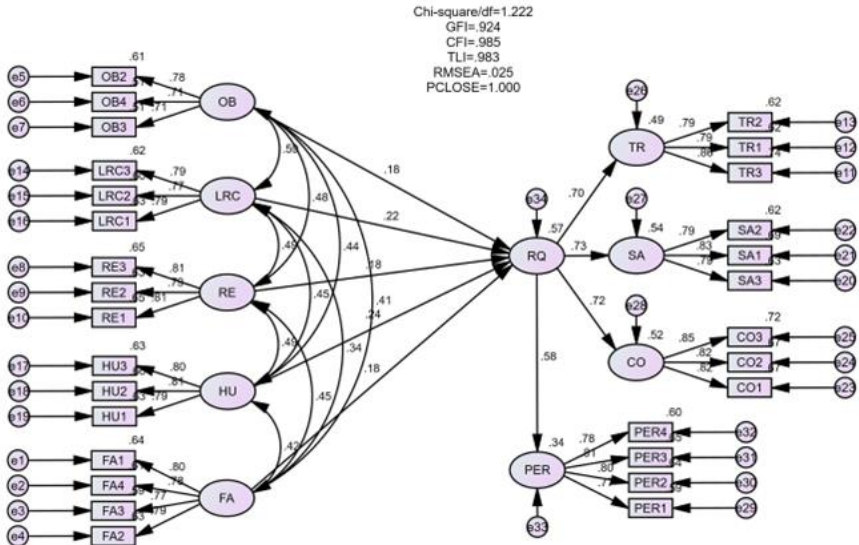


Figure 4.2. Results of SEM Analysis (standardized)

Table 4.14. Results of Correlation Testing between Concepts

| Correlation | | | Estimate | Hypothesis | Strength of Impact |
|---|---|---|---|---|---|
| RQ | ← | OB | 0,180 | H₁ | 5 |
| RQ | ← | LRC | 0,223 | H₂ | 3 |
| RQ | ← | RE | 0,180 | H₃ | 5 |
| RQ | ← | HU | 0,243 | H₄ | 2 |
| RQ | ← | FA | 0,181 | H₅ | 4 |
| PER | ← | RQ | 0,585 | H₆ | 1 |

The order of standardized regression coefficients shows the order of the independent variables' impact on the dependent variable. Thus, the impact of Relationship Quality (RQ) on Performance (H6)

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is the strongest, followed by Human Factor on RQ (H4), LRC on RQ (H2), FA on RQ (H5), and lastly OB and RE on RQ (H1 and H3).

The independent variables OB, LRC, RE, HU, FA explain 57.4% of the variance in RQ ($R^2 = 0.574$); The independent variable RQ explains 34.2% of the variance in PER ($R^2 = 0.342$).

Table 4.23. Indirect Effects

| Correlation | | | | Indirect Effect | Strength of Impact |
|---|---|---|---|---|---|
| HU | → RQ | → | PER | 0,142 | 1 |
| LRC | → RQ | → | PER | 0,130 | 2 |
| FA | → RQ | → | PER | 0,106 | 3 |
| RE | → RQ | → | PER | 0,105 | 4 |
| OB | → RQ | → | PER | 0,105 | 4 |

*(Source: Analysis and calculations by the author)*

## 4.5. BOOTSTRAP TESTING RESULTS

Bootstrap estimation results show no difference between the initial approximate samples and the highly reliable estimated model (because P-value > 0.5).

## 4.6. CONCLUSION ABOUT THE MODEL FROM QUANTITATIVE RESEARCH RESULTS

Six hypotheses have been accepted:

*- H1: The better the positive opportunity behavior, the better the RQ.*

*- H2: The higher the long-term relationship culture, the better the RQ.*

*- H3: The more stable the regulatory environment, the better the RQ.*

*- H4: The better the human factor, the better the RQ.*

*- H5: The better the physical infrastructure, the better the RQ.*

*- H6: The better the RQ, the higher the business performance.*

## 4.7. DISCUSSION ABOUT THE MODEL

**4.7.1. The positive impact of OB on RQ.**

**4.7.2. The positive impact of LRC on RQ.**

**4.7.3. The positive impact of RE on RQ.**

**4.7.4. The positive impact of HU and FA on RQ.**

**4.7.5. The positive impact of PER on RQ.**

**4.7.6. Novelty of the study.**

# CHAPTER 5.
# CONCLUSION, SIGNIFICANCE, AND IMPLICATIONS

## 5.1. CONCLUSION
### 5.1.1. Achievement of Research Objectives

Firstly, through theoretical synthesis and research surveys, the theoretical model regarding the factors influencing the relationship quality between environmental service providers and industrial customers in Ho Chi Minh City has been constructed. The study utilized qualitative and quantitative research methods to test the theoretical model and engaged in direct discussions with experts to determine the research model and hypotheses. Additionally, interviews and group discussions were conducted to develop and refine measurement scales, resulting in 9 dimensions with 31 observed variables.

Secondly, the structural model was analyzed and evaluated to test 06 research hypotheses, all of which were accepted. The study also indicated that factors such as "Positive Opportunity Behavior," "Long-term Relationship Culture," "Regulatory Environment," "Human Resources," and "Infrastructure" all influence the relationship quality between environmental service providers and industrial customers in Ho Chi Minh City, thereby enhancing business outcomes for customers.

Thirdly, the study proposed management implications to assist environmental service providers and industrial customers in enhancing relationship quality and improving business outcomes..

### 5.1.2. Research Results
## 5.2. MANAGEMENT IMPLICATIONS

Based on the test results, management implications are proposed for each factor: The impact of relationship quality (RQ) on business outcomes (H6) is the strongest, followed by the decreasing impact of human resources (HU) on RQ (H4), long-term relationship culture (LRC) on RQ (H2), facilities (FA) on RQ (H5), and finally, organizational behavior (OB) and regulatory environment (RE) on RQ (H1 and H3). Based on these test results, the author subsequently proposes managerial implications for each factor.

### 5.2.1. Management implications for environmental service providers

*- Relationship quality*
*- Human resources*
*- Long-term relationship culture*
*- Infrastructure*
*- Positive opportunity behavior*

### 5.2.2. Management implications for businesses using environmental services

*- Relationship quality*
*- Business outcomes*

### 5.2.3. Management implications for state policies - "Legal environment"

### 5.3. CONTRIBUTION OF THE STUDY

Firstly, contributing to narrowing the academic gap on relationship quality: (1) Theoretical systematization: summarized the theoretical framework on relationship quality among businesses in the environmental service industry; (2) Experimental research: conducted experimental studies to identify and evaluate factors influencing relationship quality in the environmental service industry, especially in the context of cultural and business environment transition and development in a country.

Secondly, utilizing Transaction Cost Economics (TCE) and Service Quality (SQ) theories to form factors affecting RQ within the research context of the environmental service sector.

Thirdly, the scales used in this study were adapted and tested from related studies, adjusting and testing them in the specific context of this study to ensure the validity of the scales. The author adjusted/supplemented observational variables: "Human" and "Infrastructure" according to the management implications proposed in Hoang Le Chi's (2013) study and the variable "Long-term Relationship Culture" to fit the Vietnamese context. These scales can then be widely used beyond the environmental sector and be used, adjusted, and supplemented in future research.

Fourthly, in addition to general questions, the study also used questions to measure participants' individual opinions through their perceptions. The purpose was to obtain assumed information from

both sides, i.e., to understand the opinions and perceptions of environmental service users about environmental businesses on the same issue. The experiments have shown that this scale is meaningful and valuable, potentially serving as a measurement tool for deeper future research.

Fifthly, this study used qualitative data collection methods (interviews, group discussions) to develop formal scales, aiming to gain detailed and in-depth insights into the various structures influencing relationship quality in each definition. Addressing these shortcomings in applying research methods will strengthen the evidence for developing relationship quality frameworks in the future.

Sixthly, the study also reveals some differences from previous studies: (1) The positive impact of positive opportunity behavior on relationship quality; (2) The positive impact of the legal environment on relationship quality. Thus, the concepts of "positive opportunity behavior" and "legal environment" mentioned in these studies have a positive impact on relationship quality, measured in a positive direction, which is appropriate for the study context and market data.

Finally, the study also demonstrates some similarities with previous studies: (1) RQ is a concept previously mentioned in previous studies, which can be measured in various ways and is suitable for the context of this study, based on market data, suitable for considering three aspects of RQ: trust, satisfaction, and commitment; (2) among the hypotheses proposed in this study, the factors of human and long-term relationship culture have been shown to have the greatest impact on relationship quality..

## 5.4. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

As industrial customers are the focus of the study, this research only examines a portion of the customer base of environmental service providers in Vietnam. Therefore, to gain a comprehensive understanding of customer relationships, future research should construct an RQ model with individual customers in the environmental industry in Vietnam. In the next study, multivariate analysis should also be conducted with the ownership structure of businesses to provide deeper insights into the research.

# CHAPTER 1. RESEARCH PROBLEM OVERVIEW

## 1.1. THE NECESSITY OF THE RESEARCH PROBLEM
### 1.1.1. Practical Context

Vietnam's economy is witnessing a strong growth surge due to flexible foreign investment policies, especially marked by the stable annual GDP growth. The General Statistics Office's report for 2022 indicates that Vietnam's economy quickly recovered from difficulties with agriculture, forestry, and aquaculture increasing by 3,36%, industry and construction by 7,78%, and services by 9,99%. Vietnam now has 407 industrial parks spread across 61 of the 63 provinces with a total area of about 125,000 hectares. These industrial parks have attracted more than 11,000 FDI projects with a total investment of over 230 billion USD and 10,200 domestic investment projects with a total capital of up to 254 trillion VND. These enterprises have contributed to creating about 50% of the national export value, helping Vietnam move from a trade deficit to trade balance and surplus, and significantly contributing to the state budget revenue (Duong Ngoc 2023 and Khanh Vy & Hong Vinh 2024). However, the process of industrialization and modernization, along with the development of trade and service activities, has caused environmental pollution problems, especially in industrial zones and densely populated areas like Ho Chi Minh City.

To manage society, the government has issued a series of regulations on environmental protection work and regularly conducts monitoring, inspection, and audits of pollution control in enterprises under the legal framework; aiming especially at enhancing the voluntary spirit of enterprises in environmental protection because only when enterprises recognize their role and responsibility, the environmental protection work can truly bring value.

Thus, to achieve this, it is necessary to conduct research on the quality of relationships in the environmental services sector to clearly show industrial customers (enterprises using environmental services) that "protecting the environment in enterprises increases financial income and brand awareness"; proving to customer enterprises that in the long term, it will save fuel, reduce operating

costs, possibly lead to reduced product costs, enhance competitive advantage, thereby improving the "business results" of customers.

In summary, researching the quality of relationships to develop the environmental services sector contributing to environmental protection in Vietnam in general and Ho Chi Minh City in particular is extremely necessary and useful.

### 1.1.2. Theoretical Context

Statement by Hoang Le Chi (2013, page 37): "In developing economies, especially transitioning economies, business relationships have significant differences compared to developed economies. Reviewing previous studies, it is evident that research on the relationship quality model in transitioning economies is very rare"; simultaneously, Athanasopoulou (2009, page 605) also suggested, "For the concept of relationship quality to be more comprehensive, it needs to be studied in different industries and cultures." Relationship Quality (RQ) as a topic that emerged from the marketing field but "has attracted the attention of scholars and researchers from different research fields over the past two decades" (Leonidou et al., 2013). This may be related to "the desire and need of businesses to develop mutually beneficial and successful relationships with their collaborators and partners" (Athanasopoulou, 2009).

Researchers have conducted empirical studies on RQ, leading to the emergence and development of diverse theoretical frameworks or models and different structures. These frameworks and structures relate to identifying factors contributing to the success of RQ and characteristics that make RQ highly valued by stakeholders.

In conclusion, based on the results of RQ studies and their subsequent research proposals on RQ, "exploring relationship quality" is a currently urgent research topic.

### 1.1.3. Background Theory and Gaps in Relationship Quality Theory

Since business relationships between enterprises are complex, explaining them with a single theory is limited and lacks objectivity. Instead, combining different theories to analyze the diverse aspects of business relationship quality is necessary. This combination allows examining the relationship from multiple perspectives, thereby providing deeper and more comprehensive explanations. Moreover,

the multidimensional application of theories also contributes to the development and refinement of relationship quality theory.

In conclusion, adhering to the above viewpoint, this dissertation will base on the suggestion to combine two theories: Transaction Cost Theory (TCE) and Gronroos's Service Quality Theory (2007) as the foundation for researching relationship quality in the environmental services industry.

### 1.1.4. The Necessity of Continuing Research on Relationship Quality for Industrial Customers in Vietnam

The author identifies that there is a gap that necessitates continued research on B2B relationship quality in the environmental services sector in Vietnam. This involves surveying industrial customers—enterprises utilizing services—and the outcomes of B2B relationship quality being "the business results of industrial customers as service-using enterprises" to demonstrate that "if the relationship quality with the service-providing enterprise is better, then the business outcomes of the service-using enterprise are higher."

In summary, to delve deeper into the nature of influencing factors and the results received by partners from relationship quality in the environmental services sector in Vietnam is essential. This is also a valid reason for the author to undertake this research in their dissertation. Therefore, based on the practical context and theoretical background, the author finds this research problem necessary and useful. It is currently being directed by scientists and managers both domestically and internationally, especially in the field of environmental services. Hence, the author decided to choose the topic "**Factors Affecting the Relationship Quality of Environmental Service Providers and the Business Performance of Industrial Customers in Ho Chi Minh City**".

### 1.2. RESEARCH QUESTIONS

Question 1: What factors influence the relationship quality between environmental service providers and industrial customers, and how does relationship quality affect the business performance of industrial customers in Ho Chi Minh City?

Question 2: What is the extent of influence of those factors on relationship quality, and how does relationship quality influence the business performance of industrial customers in Ho Chi Minh City?

Question 3: What management implications are appropriate to develop relationship quality and what management implications to enhance the business performance of industrial customers?

## 1.3. RESEARCH OBJECTIVES

**- General Objective:** The general objective of the study is to construct and verify the relationship between factors influencing components of relationship quality and how relationship quality affects the business performance of industrial customers. This, in turn, will propose several management implications for developing relationship quality and enhancing the business performance of industrial customers who use environmental services.

**- Specific Objectives:**

(1) To overview related studies on relationship quality to synthesize and form a theoretical basis to identify the fundamental factors influencing relationship quality and the components of relationship quality affecting the business performance of industrial customers;

(2) To develop hypotheses and a research model using qualitative and quantitative research methods to test the influence of major factors on relationship quality and how components of relationship quality affect the business performance of industrial customers;

(3) To propose some recommendations aimed at helping environmental service providers and industrial customers develop relationship quality and enhance the business performance of industrial customers.

## 1.4. RESEARCH AND SURVEY SUBJECTS

### 1.4.1. Research Subjects

The research subjects are RQ and the factors influencing RQ between environmental service providers and industrial customers; RQ and the business performance of industrial customers in HCM City.

### 1.4.2. Survey Subjects

Survey subjects are business owners or legal representatives of industrial customers—enterprises using environmental services. They could be CEOs/managers or CFOs/accounting managers or directors/heads of departments or persons in charge; or leaders of

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environmental protection teams within enterprises using environmental services in industrial zones and export processing zones in Ho Chi Minh City.

### 1.5. RESEARCH SCOPE

#### 1.5.1. Content Scope

(1) Factors influencing the relationship quality between environmental service providing enterprises and industrial customers

(2) The impact of relationship quality on the business performance of industrial customers as enterprises using environmental services.

#### 1.5.2. Spatial Scope

Surveying industrial customers as enterprises using environmental services in industrial zones and export processing zones in HCM City.

#### 1.5.3. Temporal Scope

To carry out and complete the research process, the timeframe of the dissertation was conducted from 2019 to 2022.

Data are primary data collected through in-depth interviews and surveys via detailed questionnaires conducted from May 2022 to November 2022.

### 1.6. RESEARCH METHODOLOGY

The research method combines qualitative and quantitative methods: (step 1) qualitative research; (step 2) quantitative research.

### 1.7. RESEARCH SIGNIFICANCE

#### 1.7.1. Theoretical Significance

Firstly, it contributes to completing the theoretical framework on relationship quality among businesses in the environmental service sector, especially in the context of the business environment culture in a transitioning and developing country.

Secondly, it uses Transaction Cost Theory (TCE) and Service Quality Theory (SQ) to form factors influencing relationship quality in the research context of the environmental service industry.

Thirdly, the study has adjusted the scale for the components of the theoretical model and tested the measurement model based on market data in Vietnam. Thus, contributing to supplementing and completing the scale for concepts when researching in the field of environmental services.

### 1.7.2. Practical Significance

**Significance for Service Providing Enterprises:** It helps policymakers and EMS enterprise managers have a more accurate and comprehensive view of the factors affecting relationship quality in the field of EMS, based on which to propose appropriate solutions to build and increase relationship quality for enterprises in the field of EMS in particular and service sectors in general. Additionally, the research results can also be a reference for other studies on relationship quality in business.

**Significance for Service Using Enterprises:** It helps managers of enterprises using environmental services have a more comprehensive view of the factors affecting relationship quality in the field of EMS in particular and service sectors in general, based on which to propose appropriate solutions to build and strengthen relationship quality to improve business results because "using environmental services means protecting the environment in enterprises increases financial ncome, increase brand awareness"; helping enterprises using environmental services (protection) in the long run will save fuel, reduce operating costs which could lead to reduced product costs, enhance competitive advantage, thereby improving "business results".

### 1.8. DISSERTATION STRUCTURE

The main content of the dissertation consists of the following five parts:

Chapter 1. Overview of the Research Problem
Chapter 2. Theoretical Foundation and Research Model
Chapter 3. Research Design
Chapter 4. Research Results and Discussion
Chapter 5. Conclusions and Managerial Implications

# CHAPTER 2.
# THEORETICAL BASIS AND RESEARCH MODEL

## 2.1. INDUSTRIAL CUSTOMERS
### 2.1.1. Concept of industrial customers

Industrial customers, also known as business customers or industrial customers in English, are organizations with purchasing needs for their operations and production processes.

Based on the usage of products or services in their operations, businesses in the industrial market are classified into types such as manufacturing enterprises, commercial organizations, and governmental organizations.

### 2.1.2. Buying Behavior of Industrial Customers

Differences between the buying behavior of industrial customers and that of consumers include: more direct purchasing, lower purchasing frequency, and higher order value.

### 2.1.3. Mutually Beneficial Partner Roles

Mutually beneficial B2B partnerships not only offer new business opportunities but also foster mutual support, respect, and fairness in all transactions. These are crucial factors for building and strengthening B2B relationships, serving as a solid foundation for sustainable success in today's competitive market.

## 2.3. RELATED THEORETICAL FRAMEWORK
### 2.3.1. Transaction Cost Theory

Choosing suppliers is crucial for organizations to reduce operating costs and improve efficiency. Selecting suitable suppliers to provide affordable materials and high-quality services is essential for meeting customer demands and ensuring product or service delivery.

### 2.3.2. Service Quality Theory

Service quality theory, built upon research on product quality and customer satisfaction, defines service quality as the overall assessment of excellence by customers. While researchers agree on the significant role of service quality in satisfaction and business effectiveness, there's no consensus on its measurement.

## 2.2. RELATIONSHIP QUALITY (RQ)
### 2.2.1. Concept of Relationship Quality

Relationship quality refers to the level of engagement, commitment, trust, and satisfaction aiming for long-term relationships between parties. It is assessed based on the mutual perception of both partners in the relationship.

### 2.2.2. Measurement of Relationship Quality

*2.3.2.1. Trust*

*2.3.2.2. Satisfaction*

*2.3.2.3. Commitment*

### 2.2.3. B2B Relationship Quality

In general, B2B relationships within the industrial environment can exist between suppliers and customers. In the context of industrial B2B, it may involve raw material manufacturers, raw material processing, packaging organizations, labeling organizations, service organizations, industrial equipment, and component suppliers. It can take the form of supplying goods or services produced by manufacturers to customers…

### 2.2.4. Factors Influencing Relationship Quality

This study is based on Transaction Cost Economics (TCE) and Service Quality (SQ) theories to identify factors influencing relationship quality.

### 2.2.5. Outcomes of Relationship Quality

Anthanasopoulou (2009) suggests that the outcomes of relationships between organizations should be reflected in business performance. Therefore, this criterion will be used to assess typical Vietnamese studies.

## 2.4. OVERVIEW OF RESEARCH LITERATURE ON RELATIONSHIP QUALITY

### 2.4.1. Review of Relevant Previous Studies

From the literature review, the author observes:

When the surveyed entities are businesses using services, the results of relationship quality studies mostly focus on "customer loyalty"; whereas, when the surveyed entities are service providers, the results mostly revolve around the "business performance of the service provider."

Thus, the author identifies a research gap that needs further exploration: investigating industrial customer targets and the outcome

of B2B relationship quality as "the business performance of industrial customers".

### 2.4.2. Research Gaps

(1) Studying B2B relationship quality in the case of environmental service industries in Vietnam;

(2) This study combines the Transaction Cost Economics (TCE) and Service Quality (SQ) theories for better explanations of business relationships;

(3) In this thesis, the author surveys customer targets as businesses using services and the outcome of this relationship quality is "the business performance of businesses using services".

## 2.5. RESEARCH CONCEPTS AND HYPOTHESES FORMATION

### 2.5.1. Application of Transaction Cost Theory

The study discusses three aspects of transaction costs: Positive opportunity behavior, Long-term relationship culture, Legal environment.

*H1: If positive pportunistic behavior is better (businesses aim for mutual benefits), then relationship quality is better.*

*H2: If the long-term relationship culture is higher, then relationship quality is better.*

*H3: If the regulatory environment is better, then relationship quality is better.*

### 2.5.2. Application of Service Quality Theory

The primary aspect to study the impact of service quality on RQ is: Human and Facilities.

*H4: If humans are better, then relationship quality is better*

*H5: If facilities are better, then relationship quality is better.*

*H6: If relationship quality is better, then the business performance of the enterprise is higher.*

### 2.6. RESEARCH MODEL
### 2.6.1. General Research Model
### 2.6.2. Proposed Research Model

Based on the arguments above, the author presents the research model as follows:

**Research Hypotheses:**

*H1: If positive pportunistic behavior is better, then RQ is better.*

*H2: If the long-term relationship culture is higher, then RQ is better.*

*H3: If the regulatory environment is more stable, then RQ is better.*

*H4: If humans are better, then RQ is better.*

*H5: If  facilities are better, then RQ is better.*

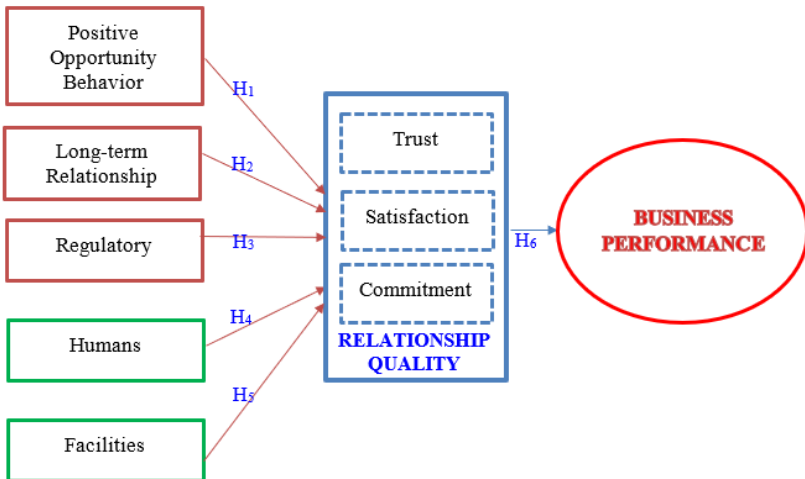*H6: If RQ is better, then business performance is higher.*



Figure 2.6. Research Model
*(Source: Self-synthesis and proposal by the author, 2022)*

# CHAPTER 3. RESEARCH DESIGN

## 3.1. SELECTION OF RESEARCH METHOD

The research process consists of three stages as follows: Stage 1: Theoretical overview; Stage 2: Preliminary research; Stage 3: Formal research.

## 3.2. PRELIMINARY QUALITATIVE RESEARCH

### 3.2.1. Expert Interviews to Identify Research Models

### 3.2.2. Group Discussions to Confirm Research Models

The primary group for this study's discussions comprises 05 education experts (Ph.D.) with experience in economics/business management fields, working at universities in Vietnam. They possess substantial understanding of the author's research area to affirm the influencing factors, components, and outcomes of relationship quality…

## 3.3. PRELIMINARY MEASUREMENT SCALES

The selected scales in this study have been validated globally and adjusted to fit Vietnam. The author utilizes a 5-point Likert scale, ranging from 1 as "completely disagree" to 5 as "completely agree". The study focuses solely on industrial customers, i.e., businesses using environmental services, through questions measuring the partner's perception based on the surveyed individual's perception, referencing research by Wilson & Nelson (2000), Nguyen Thi Mai Trang (2002, 2004, 2014), Hoang Le Chi (2012), Nguyen Thi Thanh Van (2018)…

### 3.3.1. Positive Opportunity Behavior

### 3.3.2. Long-term Relationship Culture

### 3.3.3. Regulatory Environment

### 3.3.4. Humans

### 3.3.5. Facilities

### 3.3.6. Trust

### 3.3.7. Satisfaction

### 3.3.8. Commitment

### 3.3.9. Business Performance

## 3.4. QUALITATIVE RESEARCH RESULTS

After constructing the preliminary measurement scales, the author evaluates their reliability and content validity through the third

round of qualitative research, consisting of interviews and discussions with 14 experts:

### 3.4.1. Design of Preliminary Questionnaire

Interviews and discussions are conducted with 14 experts: 09 directors/deputy directors of environmental services enterprises and 05 education experts (Ph.D.) in economics/business management fields. The experts select their viewpoints on each question, and the author moderates group discussions sequentially on each factor to ensure content consistency until completion.

### 3.4.2. Results of Qualitative Research

Table 3.10. Formal Measurement Scale

| CONTENT | SOURCE |
|---|---|
| **1. Positive Opportunity Behavior (OB)** | |
| OB1. Our company often keeps its promises to the environmental company. | Knemeyer & Murphy (2004); Nguyen Thi Thanh Van (2018) |
| OB2. The environmental company often keeps its promises to our company. | |
| OB3. Our company often provides a comprehensive and honest view of ongoing activities to the environmental company. | Nguyen Thi Mai Trang et al. (2004); Nguyen Thi Thanh Van (2018) |
| OB4. The environmental company often provides a comprehensive and honest view of ongoing activities to our company | |
| **2. Long-term Relationship Culture (LRC)** | |
| LRC1. Our company tends to continue choosing its partners because they believe that the prices offered by the environmental company are always the most reasonable. | Ganesan (1994); Tai & Chan (2001); Nguyen Thi Thanh Van (2018) |
| LRC2. Our company tends to prioritize quality over price when choosing the environmental company. | Ryu & Cook (2005); Nguyen Thi Thanh Van (2018) |
| LRC3. Our company usually does not want to change to another environmental company even if the environmental company occasionally fails to fulfill obligations | Ganesan (1994); Tai & Chan (2001); Nguyen Thi Thanh Van (2018) |
| **3. Regulatory Environment (RE)** | |
| RE1. The policy mechanism in the environmental service industry is supported by the Party and the State, promoting sustainable development. | Vo & Baumgarte (2000); Nguyen Thi Thanh Van (2018); |

| CONTENT | SOURCE |
|---|---|
| | The author adjusted/ supplemented. |
| RE2. The state has perfected the system of policies and laws on environmental protection, prioritizing environmental education and communication. | Agboli & Ukaegbu (2006); Nguyen Thi Thanh Van (2018); |
| RE3. State management activities on environmental protection have been carried out effectively and efficiently | The author adjusted/ supplemented. |
| **4. Human Resources (HU)** | |
| HU1. The personnel of the environmental company are always dedicated, understanding, empathetic, ready to serve, and capable of resolving all service-related issues for our company. | *The author adjusted/ supplemented this observed variable according to the management implications proposed in the study by Hoang Le Chi, 2013.* |
| HU2. The personnel of the environmental company always communicate and interpret procedures clearly, simply, logically, and reliably; they also provide and share timely information with our company. | |
| HU3. The personnel of the environmental company have professional communication skills and can handle issues promptly and accurately. | |
| HU4. The personnel of the environmental company have extensive experience, are skilled in their profession, and regularly update their scientific and technological knowledge | |
| **5. Facilities (FA)** | |
| FA1. The trading premises of the environmental company are neat, clean, well-maintained, and emphasize brand promotion. | *The author adjusted/ supplemented this observed variable according to the management implications proposed in the study by Hoang Le Chi, 2013.* |
| FA2. The facilities of the environmental company have simple, clear, and convenient service instructions and procedures. | |
| FA3. The environmental company possesses modern technology and always embraces advanced technology. | |
| FA4. The equipment of the environmental company is modern, efficient, well-maintained, and reliable | |
| **6. Trust (TR)** | |

| CONTENT | SOURCE |
|---|---|
| TR1. We believe that the environmental company wants to be sincere with our company. | Swar et al. (2012); Nguyen Thi Thanh Van (2018) |
| TR2. We feel that the environmental company wants to make decisions that benefit our company in any situation. | |
| TR3. Our company is willing to assist the environmental company without expecting compensation | |
| **7. Satisfaction (SA)** | |
| SA1. Our company is satisfied with the trading methods of the environmental company. | Nguyen Thi Mai Trang et al. (2004); Nguyen Thi Thanh Van (2018) |
| SA2. Our company is satisfied with the quality of service provided by the environmental company. | Chu & Wang (2012); Nguyen Thi Thanh Van (2018) |
| SA3. Our company is satisfied with the prices offered by the environmental company | |
| **8. Commitment (CO)** | |
| CO1. Our company and the environmental company tend to commit to becoming long-term allies. | Nguyễn Thị Mai Trang et al. (2004); Morgan & Hunt (1994); Nguyen Thi Thanh Van n (2018) |
| CO2. Our company does not view the environmental company as just a partner but aims to be an integral part of our company. | Chu & Wang (2012); Nguyen Thi Thanh Van (2018) |
| CO3. Our company senses that the environmental company also considers us an important part of their company | |
| **9. Business Performance (PER)** | |
| PER1. Our company's profits have increased recently due to close cooperation with the environmental company. | Chu & Wang (2012); Han et al. (2009); Nguyen Thi Thanh Van (2018) |
| PER2. Our company's revenue growth has increased recently due to close cooperation with the environmental company. | Panayides (2007); Cho et al. (2008) |
| PER3. Our company's market share has increased since establishing a good relationship with the environmental company. | Han et al. (2009); Nguyen Thi Thanh Van (2018) |

| CONTENT | SOURCE |
|---|---|
| PER4. Our company's profitability has increased since establishing a good relationship with the environmental company | Panayides (2007); Cho et al. (2008) |

*(Source: synthesized/adjusted by the author after consulting with experts)*

### 3.5. FORMAL QUANTITATIVE RESEARCH

### 3.5.1. Research Sample

*3.5.1.1. Determining the Sample Size*

The study distributed a total of 500 survey questionnaires.

*3.5.1.2. Sampling Method*

Convenience sampling method was used, with the surveyed sample being industrial customers - businesses in 14/14 industrial parks/ export processing zones in Ho Chi Minh City (HCMC); the author used the Cochran formula based on confidence level and margin of error. Thus, the surveyed sample of approximately 271 businesses will represent the market of 877 businesses with a confidence level of 95% and a margin of error of 5%. Therefore, the author chose $n \geq 310$ survey samples for this study.

*3.5.1.3. Investigation Method*

Due to the difficulty in accessing the surveyed subjects, the author used the method of sending questionnaires directly to interview subjects.

*3.5.1.4. Surveyed Subjects*

Middle to senior management: legal representatives, they could be CEOs/managing directors, or CFOs/accounting managers, or directors/department heads, deputy department heads in charge; or heads of environmental protection groups.

*3.5.2. Analysis Method and Quantitative Criteria*

Data were evaluated for reliability, exploratory factor analysis, confirmatory factor analysis, and structural equation modeling. In addition, other quantitative techniques were also applied.

**CHAPTER 4. RESEARCH RESULTS AND DISCUSSION**

### 4.1. EVALUATION OF THE ENVIRONMENTAL SERVICES INDUSTRY STATUS
#### 4.1.1. Environmental Status in Ho Chi Minh City
According to statistics from the Ministry of Industry and Trade, by the end of 2022, the whole country had a total of about 391 operating industrial parks; among them, there were 290 operating industrial parks, 66 parks under construction, and 35 parks planned for future development. Currently, Vietnam has 407 industrial parks spread across 61/63 provinces and cities. Specifically, HCMC has about 16 export processing zones, industrial parks, and high-tech zones, most of which have invested in centralized industrial wastewater treatment systems and are basically under control. For the 27 planned and constructed industrial clusters, only two active clusters have centralized wastewater treatment systems. In addition to industrial parks, export processing zones, manufacturing facilities, and services... HCMC also controls wastewater discharge from residential areas, stipulating that projects with an area of 20 hectares or more must invest in centralized domestic wastewater treatment systems. According to the latest statistics, the city currently has 42 residential area projects with an area of 20 hectares or more (10 projects are operational), of which 7 projects have built centralized wastewater treatment systems. Most residential area projects with an area of less than 20 hectares do not have wastewater treatment systems and discharge directly into the environment. HCMC is also one of the leading localities in the country in terms of the number of industrial parks. Clearly, the establishment of industrial parks has brought about significant and positive changes to the country's economic structure. However, industrial parks also cause significant pollution, directly affecting the climate, people, and ecosystems.

#### 4.1.2. Development of the Environmental Services Industry
Vietnam in general and HCMC in particular are in the process of industrialization and modernization. Participating in international trade agreements will open up opportunities for the development of the environmental services industry. The environmental services

market in Vietnam is still wide open; the demand for high-tech equipment for waste collection, transportation, treatment of waste, wastewater, exhaust gases... presents great opportunities for development. One solution is to study the factors affecting the quality of the relationship between service-providing and service-using businesses. This will help policy makers, enterprise managers have a better understanding of the environmental services sector. From there, appropriate measures can be taken to improve the quality of the relationship, helping the environmental services industry in Vietnam assert its position and meet market demands for environmental protection.

### 4.1.3. Building and Strengthening Relationship Quality

A quality relationship also promotes the development of loyalty and creates conditions for long-term cooperation, minimizes conflicts, and enhances operational efficiency. In addition, close cooperation between service providers and service-using businesses can lead to sharing of expertise, advanced technology, and best practices, enhancing environmental processing capacity and ensuring compliance with the law.

A good relationship also contributes to improving the reputation and image of both parties in the eyes of the public and customers, helping them become pioneers in environmental protection efforts and sustainable development. This is a core factor in building a green economy and creating a better future for the next generation.

### 4.2. DESCRIPTIVE STATISTICS OF THE SURVEY SAMPLE

Table 4.2. Descriptive Statistics of the Survey Sample

| Group | Quantity | Percentage |
|---|---|---|
| **Type of Enterprise** | | |
| Joint ventures | 05 | 1,4 |
| Private enterprises | 21 | 5,8 |
| Limited liability companies | 274 | 76,1 |
| Joint-stock companies | 60 | 16,7 |
| Total | 360 | 100 |
| **Position (Job Title)** | | |
| Business owners | 76 | 21 |
| Chief Executive Officer | 104 | 29 |

| Group | Quantity | Percentage |
|---|---|---|
| Chief Financial Officer | 72 | 20 |
| Department Heads | 65 | 18 |
| Other positions | 43 | 12 |
| Total | 360 | 100 |
| **Types of Production categorized by Environmental Pollution Level** | | |
| High pollution (Level I) | 56 | 1,4 |
| Medium pollution (Level II) | 42 | 5,8 |
| Low pollution (Level III) | 262 | 76,1 |
| Total | 360 | 100 |
| **Distribution Area (HCMC)** | | |
| Binh Chanh District | 79 | 21,9 |
| Binh Tan District | 77 | 21,4 |
| Tan Binh District | 52 | 14,4 |
| Thu Duc City | 49 | 13,6 |
| Cu Chi District | 39 | 10,8 |
| District 7 | 22 | 6,1 |
| Nha Be District | 21 | 5,8 |
| District 12 | 21 | 5,8 |
| Total | 360 | 100 |

*(Source: Author's data analysis)*

Through the formal quantitative survey, 400 out of 500 distributed questionnaires were collected, achieving a success rate of 80%. After screening, 40 questionnaires were deemed inadequate due to incomplete responses and were therefore excluded. Consequently, 360 valid questionnaires were included for analysis and processing. With 360 valid questionnaires out of a total of 877 enterprises in the 14 industrial parks and export processing zones scattered throughout Ho Chi Minh City, the number of valid questionnaires in each industrial park and export processing zone reached at least 20% of the total number of enterprises (see Table 4.2). Thus, the sample size represented the entire market ($360 > 271$, see section 3.5.1.2).

### 4.3. RESEARCH RESULTS

### 4.3.1. Reliability Assessment Results of the Scale

According to the statistical data, the Alpha coefficient of the overall scale $> 0.8$, and the variable-to-total correlation coefficient $> 0.3$, indicating that no observed variable was excluded.

#### 4.3.2. Results of Scale Value Assessment

*4.3.2.1. Results of Initial EFA Component Analysis*

*4.3.2.2. Results of Subsequent EFA Component Analysis*

Variable types HU4 and OB1 were removed because their loading coefficients were less than 0,5.

The factor analysis model was practically significant. Out of the initial 31 observed variables, 2 variables did not meet the requirements in the initial assessment, leaving 29 observed variables combined into 9 meaningful factors: (1) OB, (2) LRC, (3) RE, (4) HU, (5) FA, (6) TR, (7) CO, (8) SA, (9) PER.

#### 4.3.3. Confirmatory Factor Analysis (CFA) Results

*4.3.3.1. Second-order Factor CFA*

Table 4.10. Summary table of second-order factor CFA test results

| Index | Acceptance Threshold | Research Result | Conclusion |
|---|---|---|---|
| Chi-square/df | < 3 | **0,841** | Accepted |
| GFI | > 0,9 | **0,998** | Accepted |
| CFI | > 0,9 | **1,000** | Accepted |
| TLI | > 0,9 | **1,004** | Accepted |
| RMSEA | < 0,05 | **0,000** | Accepted |
| PCLOSE | > 0,05 | **0,996** | Accepted |

*(Source: Author's data analysis)*

Thus, the model demonstrates good fit with the data.

*4.3.3.2. Comprehensive CFA*

Table 4.14. Summary Table of CFA Test Results

| Index | Acceptance Threshold | Research Result | Conclusion |
|---|---|---|---|
| Chi-square/df | 1 - 3 | **1,210** | Accepted |
| GFI | > 0,9 | **0,926** | Accepted |
| CFI | > 0,9 | **0,986** | Accepted |
| TLI | > 0,9 | **0,984** | Accepted |
| RMSEA | < 0,05 | **0,024** | Accepted |
| PCLOSE | > 0,05 | **0,964** | Accepted |

*(Source: Author's data analysis)*

**Conclusion:** The data indicates that the model is appropriate.

### 4.4. RESULTS OF SEM MODEL ANALYSIS

The SEM model was tested on AMOS using ML (Maximum Likelihood) estimation to estimate the parameters in the model. The results show that the theoretical model fits the survey data, as evidenced by the following indices: Chi-square/df = 1.222; PCLOSE = 1.000; GFI = 0.924; TLI = 0.983; CFI = 0.985; and RMSEA = 0.025.
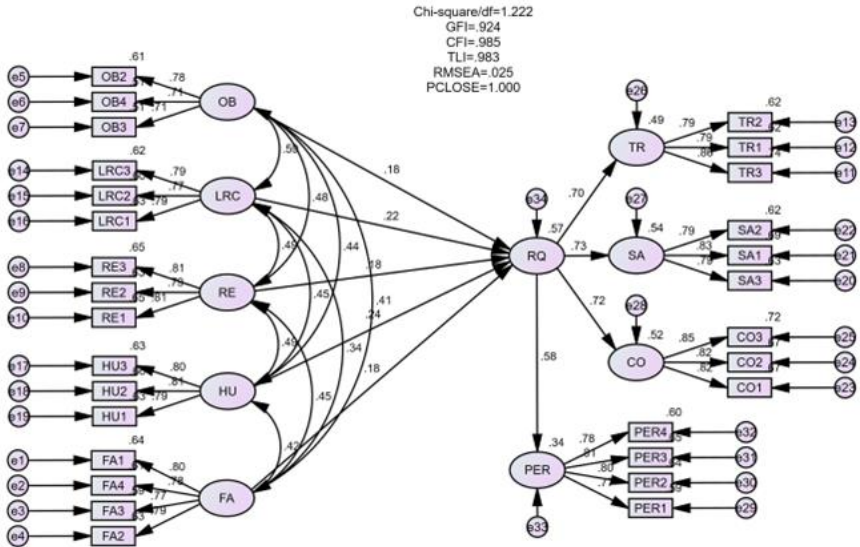


Figure 4.2. Results of SEM Analysis (standardized)

Table 4.14. Results of Correlation Testing between Concepts

| Correlation | | | Estimate | Hypothesis | Strength of Impact |
|---|---|---|---|---|---|
| RQ | ← | OB | 0,180 | H₁ | 5 |
| RQ | ← | LRC | 0,223 | H₂ | 3 |
| RQ | ← | RE | 0,180 | H₃ | 5 |
| RQ | ← | HU | 0,243 | H₄ | 2 |
| RQ | ← | FA | 0,181 | H₅ | 4 |
| PER | ← | RQ | 0,585 | H₆ | 1 |

The order of standardized regression coefficients shows the order of the independent variables' impact on the dependent variable. Thus, the impact of Relationship Quality (RQ) on Performance (H6)

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is the strongest, followed by Human Factor on RQ (H4), LRC on RQ (H2), FA on RQ (H5), and lastly OB and RE on RQ (H1 and H3).

The independent variables OB, LRC, RE, HU, FA explain 57.4% of the variance in RQ ($R^2 = 0.574$); The independent variable RQ explains 34.2% of the variance in PER ($R^2 = 0.342$).

Table 4.23. Indirect Effects

| Correlation | | | | Indirect Effect | Strength of Impact |
|---|---|---|---|---|---|
| HU | → RQ | → | PER | 0,142 | 1 |
| LRC | → RQ | → | PER | 0,130 | 2 |
| FA | → RQ | → | PER | 0,106 | 3 |
| RE | → RQ | → | PER | 0,105 | 4 |
| OB | → RQ | → | PER | 0,105 | 4 |

*(Source: Analysis and calculations by the author)*

## 4.5. BOOTSTRAP TESTING RESULTS

Bootstrap estimation results show no difference between the initial approximate samples and the highly reliable estimated model (because P-value > 0.5).

## 4.6. CONCLUSION ABOUT THE MODEL FROM QUANTITATIVE RESEARCH RESULTS

Six hypotheses have been accepted:

*- H1: The better the positive opportunity behavior, the better the RQ.*

*- H2: The higher the long-term relationship culture, the better the RQ.*

*- H3: The more stable the regulatory environment, the better the RQ.*

*- H4: The better the human factor, the better the RQ.*

*- H5: The better the physical infrastructure, the better the RQ.*

*- H6: The better the RQ, the higher the business performance.*

## 4.7. DISCUSSION ABOUT THE MODEL

### 4.7.1. The positive impact of OB on RQ.

### 4.7.2. The positive impact of LRC on RQ.

### 4.7.3. The positive impact of RE on RQ.

### 4.7.4. The positive impact of HU and FA on RQ.

### 4.7.5. The positive impact of PER on RQ.

### 4.7.6. Novelty of the study.

# CHAPTER 5.
# CONCLUSION, SIGNIFICANCE, AND IMPLICATIONS

## 5.1. CONCLUSION
### 5.1.1. Achievement of Research Objectives

Firstly, through theoretical synthesis and research surveys, the theoretical model regarding the factors influencing the relationship quality between environmental service providers and industrial customers in Ho Chi Minh City has been constructed. The study utilized qualitative and quantitative research methods to test the theoretical model and engaged in direct discussions with experts to determine the research model and hypotheses. Additionally, interviews and group discussions were conducted to develop and refine measurement scales, resulting in 9 dimensions with 31 observed variables.

Secondly, the structural model was analyzed and evaluated to test 06 research hypotheses, all of which were accepted. The study also indicated that factors such as "Positive Opportunity Behavior," "Long-term Relationship Culture," "Regulatory Environment," "Human Resources," and "Infrastructure" all influence the relationship quality between environmental service providers and industrial customers in Ho Chi Minh City, thereby enhancing business outcomes for customers.

Thirdly, the study proposed management implications to assist environmental service providers and industrial customers in enhancing relationship quality and improving business outcomes..

### 5.1.2. Research Results
### 5.2. MANAGEMENT IMPLICATIONS

Based on the test results, management implications are proposed for each factor: The impact of relationship quality (RQ) on business outcomes (H6) is the strongest, followed by the decreasing impact of human resources (HU) on RQ (H4), long-term relationship culture (LRC) on RQ (H2), facilities (FA) on RQ (H5), and finally, organizational behavior (OB) and regulatory environment (RE) on RQ (H1 and H3). Based on these test results, the author subsequently proposes managerial implications for each factor.

### 5.2.1. Management implications for environmental service providers
        *- Relationship quality*
        *- Human resources*
        *- Long-term relationship culture*
        *- Infrastructure*
        *- Positive opportunity behavior*
### 5.2.2. Management implications for businesses using environmental services
        *- Relationship quality*
        *- Business outcomes*
### 5.2.3. Management implications for state policies - "Legal environment"
## 5.3. CONTRIBUTION OF THE STUDY

Firstly, contributing to narrowing the academic gap on relationship quality: (1) Theoretical systematization: summarized the theoretical framework on relationship quality among businesses in the environmental service industry; (2) Experimental research: conducted experimental studies to identify and evaluate factors influencing relationship quality in the environmental service industry, especially in the context of cultural and business environment transition and development in a country.

Secondly, utilizing Transaction Cost Economics (TCE) and Service Quality (SQ) theories to form factors affecting RQ within the research context of the environmental service sector.

Thirdly, the scales used in this study were adapted and tested from related studies, adjusting and testing them in the specific context of this study to ensure the validity of the scales. The author adjusted/supplemented observational variables: "Human" and "Infrastructure" according to the management implications proposed in Hoang Le Chi's (2013) study and the variable "Long-term Relationship Culture" to fit the Vietnamese context. These scales can then be widely used beyond the environmental sector and be used, adjusted, and supplemented in future research.

Fourthly, in addition to general questions, the study also used questions to measure participants' individual opinions through their perceptions. The purpose was to obtain assumed information from

both sides, i.e., to understand the opinions and perceptions of environmental service users about environmental businesses on the same issue. The experiments have shown that this scale is meaningful and valuable, potentially serving as a measurement tool for deeper future research.

Fifthly, this study used qualitative data collection methods (interviews, group discussions) to develop formal scales, aiming to gain detailed and in-depth insights into the various structures influencing relationship quality in each definition. Addressing these shortcomings in applying research methods will strengthen the evidence for developing relationship quality frameworks in the future.

Sixthly, the study also reveals some differences from previous studies: (1) The positive impact of positive opportunity behavior on relationship quality; (2) The positive impact of the legal environment on relationship quality. Thus, the concepts of "positive opportunity behavior" and "legal environment" mentioned in these studies have a positive impact on relationship quality, measured in a positive direction, which is appropriate for the study context and market data.

Finally, the study also demonstrates some similarities with previous studies: (1) RQ is a concept previously mentioned in previous studies, which can be measured in various ways and is suitable for the context of this study, based on market data, suitable for considering three aspects of RQ: trust, satisfaction, and commitment; (2) among the hypotheses proposed in this study, the factors of human and long-term relationship culture have been shown to have the greatest impact on relationship quality..

## 5.4. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

As industrial customers are the focus of the study, this research only examines a portion of the customer base of environmental service providers in Vietnam. Therefore, to gain a comprehensive understanding of customer relationships, future research should construct an RQ model with individual customers in the environmental industry in Vietnam. In the next study, multivariate analysis should also be conducted with the ownership structure of businesses to provide deeper insights into the research.

# THE AUTHOR'S PUBLISHED ARTICLES

| Stt | Tên công trình | Năm | Tên tạp chí |
|-----|----------------|-----|-------------|
| 1 | The relationship quality between environmental consulting service providers and industrial customers in Ho Chi Minh City | 2018 | Trade Journal, Issue 8 - May 2018 |
| 2 | The environment and business performance of enterprises | 2021 | Trade Journal, Issue 17 - May 2021 |
| 3 | Scale to determine the impact of transaction costs, service quality and relationship quality on business results of enterprises using environmental protection services in Ho Chi Minh city | 2023 | International Journal of Research in Finance and Management (2023), Vol. 6, Issue 2, 145-163. |
| 4 | Business results of enterprises using environmental protection services in Ho Chi Minh city through transaction costs, service quality and relationship quality | 2023 | International Journal of Research in Finance and Management (2023), Vol. 6, Issue 2, 134-144. |
| 5 | Factors affecting the quality of relationship between private service providers and public institutions in Vietnam | 2023 | International Journal of Public Sector Performance Management **(DOI:** 10.1504/ IJPSPM. 2025.10055971) |