

VIETNAM-KOREA UNIVERSITY OF INFORMATION AND  
COMMUNICATION TECHNOLOGY  
FACULTY OF DIGITAL ECONOMY & E - COMMERCE



**BACHELOR THESIS**  
**SOLUTIONS TO IMPROVE THE EFFICIENCY OF**  
**TRANSPORTATION SERVICE OPERATIONS ON THE**  
**WEBSITE PLATFORM AT VITRACO TRANSPORT AND**  
**TOUR**

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**Class:** 20GBA  
**Major:** Business Administration  
**Minor:** E-commerce Management  
**Supervisor:** Nguyen Thi Khanh Ha, M.Sc.

**Da Nang – December 2025**

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The author

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# INTRODUCTION

In recent years, the rapid development of digital technology and the widespread adoption of e-commerce have profoundly transformed business operations across various industries, particularly in the transportation and tourism sectors. The application of online platforms in service management, booking, payment, and customer interaction has become an inevitable trend, enabling enterprises to improve operational efficiency, enhance customer experience, and strengthen their competitive advantages in an increasingly digitalized market environment.

In Vietnam, the government has strongly promoted digital transformation as a key strategy for socio-economic development, encouraging enterprises to adopt digital technologies in business operations. The transportation industry, which plays a vital role in connecting production, consumption, and tourism activities, has been significantly influenced by this trend. The integration of e-commerce and website-based platforms into transportation services allows businesses to optimize operational processes, reduce costs, expand market reach, and respond more effectively to customer needs in the digital era.

Vitraco Transport and Tourism Joint Venture Company Limited is one of the enterprises operating in the transportation and tourism sector in Da Nang City, a region with rapidly growing tourism demand. In recent years, Vitraco has actively implemented online transportation services through its website platform to improve service efficiency and market accessibility. However, despite initial achievements, the effectiveness of the company's website in supporting online transportation services has not yet reached its full potential. Limitations related to website functionality, user experience, system integration, and digital marketing activities have affected customer engagement and online business performance.

Therefore, this study is conducted to analyze the current state of online transportation services on Vitraco's website platform, identify existing shortcomings, and evaluate factors influencing operational effectiveness. Based on the research findings, the study proposes practical and feasible solutions to improve the efficiency of online transportation services, enhance customer satisfaction, and support the

company's long-term digital transformation strategy. At the same time, the research contributes to enriching academic literature on the application of e-commerce in the transportation sector in Vietnam, an area that remains relatively underexplored.

## **CHAPTER 1. OVERVIEW THE TOPIC**

### **1.1. Reasons for Choosing the Topic**

In the context of globalization and the ongoing Fourth Industrial Revolution, e-commerce has become an inevitable trend, playing a crucial role in innovating the business models of service enterprises. The transportation industry – traditionally heavily reliant on technology – is currently witnessing a significant transformation thanks to the application of digital technology and online platforms in management, booking, and customer service. Implementing transportation operations on a website platform not only helps businesses save costs and increase customer reach but also creates a sustainable competitive advantage in today's business environment.

In Vietnam, the trend of digital transformation in the transportation sector is being strongly encouraged by the government, especially in major cities like Da Nang – where tourism and transportation demand are rapidly developing. In this context, Vitracco Transport and Tourism Joint Venture Company Limited, a company with many years of experience in passenger transport and tourism, has proactively implemented its business operations on a website platform to improve service efficiency and expand its market. However, reality shows that the effectiveness of Vitracco's website has not yet met expectations. The interface is limited in terms of user experience, the speed of processing ride bookings is not optimized, and online marketing activities are fragmented and lack interaction with customers. This affects the ability to attract potential customers as well as the business efficiency of the enterprise.

Based on this situation, the topic "Solutions to improve the effectiveness of transport services on a website platform at Vitracco Transport and Tourism Joint Venture Company Limited" was chosen to analyze in depth the current state of the company's e-commerce operations, identify limitations, and propose practical solutions to help Vitracco improve its competitiveness and online operational efficiency in the future.

### **1.2. Research objectives**

#### **1.2.1. Overall objective**

The overall objective of this study is to analyze and evaluate the current state of online transportation services offered by Vitracco Company, thereby proposing feasible

solutions to improve online business efficiency, optimize customer experience, and contribute to the digital transformation of the enterprise.

### 1.2.2. Specific objectives

To achieve the overall goal, this study aims at the following three specific objectives:

- Evaluating the effectiveness of the current website in transportation business operations.

A comprehensive analysis of factors related to Vitraco's website operation such as interface, processing speed, booking features, information security, multi-platform compatibility, and service information delivery efficiency. Simultaneously, through surveys and interviews, the study assesses customer satisfaction and website usage behavior, thereby identifying strengths and weaknesses in the company's online business operations

- Analyzing factors influencing online booking.

Considering factors such as psychology, convenience, reliability, service quality, pricing policies, and the impact of digital marketing activities on the decision to book a ride through the website. The objective of this section is to clarify the reasons why customers choose (or do not choose) online ride-hailing services, thereby providing a practical basis for proposing solutions for improvement.

- Propose technical, marketing, and management solutions to optimize the service.

Provide specific measures to improve website performance, enhance customer accessibility, and strengthen the e-commerce management system at Vitraco. These solutions include improving the user interface, applying customer behavior analytics tools (Google Analytics), strengthening online marketing (SEO, Google Ads, social media), and training e-commerce personnel.

## **1.3. Research subjects and scope**

### 1.3.1. Subjects

The subject of this research is the provision of transportation services through the website platform of Vitraco Transport and Tourism Joint Venture Company Limited, including technical, marketing, management, and customer behavior elements in the online environment.

### 1.3.2. Scope

- Scope: The study was conducted at Vitraco Transport and Tourism Joint Venture Company Limited, headquartered in Da Nang City – an area with strong tourism and transportation development.

- Timeframe: Research data and information were collected during the period 2022–2024, reflecting trends and results of digital transformation in the post-COVID-19 era.

- Content: Focuses on analyzing the current state of the company's website, the effectiveness of its online transportation services, and related digital marketing activities.

## **1.4. Research methods**

### 1.4.1. Data collection

This study utilizes a combination of two main data types:

- Primary data: Collected through surveys of customers using online ride-hailing services and interviews with employees in the company's sales, technical, and marketing departments. The aim is to understand the actual user experience and website operation process.

- Secondary data: Includes the company's business reports, internal documents, academic research on e-commerce and transportation, along with publicly available information from Vitraco's official website and industry reports from the Ministry of Industry and Trade, VECOM, Statista, etc.

### 1.4.2. Data analysis

The next step in the research is to process and analyze the data to draw objective conclusions, serving as a basis for evaluation and solution proposals. The study uses descriptive statistics to synthesize and present data related to the online transportation service business of Vitraco Company. Data such as website visits, the number of online bookings, conversion rates, customer feedback, and revenue from the online channel will be compiled and compared over different periods to identify trends.

In addition, a comparative method is used to compare the performance of Vitraco's website with that of similar businesses in Da Nang and the Central region. This approach

helps assess the company's competitive position and determine the gap between current practices and optimal standards for online service operations.

Furthermore, the results of customer surveys and employee interviews were coded and analyzed according to criteria groups such as service quality, interface, convenience level, and website reliability. Combining qualitative and quantitative data allows for a more comprehensive assessment and helps identify key factors influencing customers' online ride-hailing behavior.

Through these methods, the research not only describes the current situation but also aims to analyze the root causes, providing a scientific basis for proposing technical, marketing, and management solutions to improve the operational efficiency of the Vitraco website in the following chapters.

### **1.5. Significance of the topic**

In practical terms, this study helps Vitraco Company clearly identify its strengths and weaknesses in online transportation operations, thereby providing a basis for improving website efficiency, expanding online sales channels, and increasing competitive advantage in the market. The research results also offer useful suggestions for other transportation businesses in implementing and perfecting their e-commerce activities.

Academically, this study contributes to supplementing the theoretical basis for the application of e-commerce in the transportation sector – a rapidly developing field but one that still lacks in-depth research in Vietnam. The results of this study can be used as a reference for students, lecturers, and researchers interested in the topic of digital transformation in transportation services.

### **1.6. Conclusion of Chapter 1**

Chapter 1 presented an overview of the topic, including the reasons for choosing the topic, objectives, subjects, scope, research methods, and practical significance. This showed that the topic is urgent and relevant to the current trend of e-commerce development in the transportation industry. The following chapters will delve into the theoretical basis of e-commerce and online transportation service models, providing a foundation for analyzing the current situation and proposing solutions to improve the effectiveness of Vitraco's website in Chapters 2 and 3.

## **CHAPTER 2. THEORETICAL BASIS**

### **2.1. Theoretical basis The concept and role of transportation services**

#### 2.1.1. The concept of transportation services

Transportation services are one of the fundamental service sectors of any economy, playing a crucial role in connecting production, distribution, and consumption activities, while ensuring the continuous flow of goods and people in space and time. In the context of modern economic development and international integration, transportation services are increasingly seen as a key factor in promoting growth, improving supply chain efficiency, and enhancing the competitiveness of businesses and the national economy.

According to the Organization for Economic Cooperation and Development (OECD), transportation services are understood as a collection of activities related to the movement of passengers and goods through various means of transport, based on a technical infrastructure system to meet the needs of trade and travel in society (OECD, 2006). This definition emphasizes the close relationship between transport activities and transport infrastructure, showing that transport cannot exist independently but is heavily dependent on road, rail, water, and air transport systems.

From the perspective of economic development and integration, the United Nations, through reports of the Economic Commission for Europe (UNECE), states that transport is a service that facilitates the smooth and efficient movement of goods and people, thereby contributing to economic growth, regional connectivity, and sustainable development (UNECE, n.d.). This approach highlights the strategic role of transport services in the process of globalization and the expansion of international trade.

From a service economics perspective, the World Bank and the International Monetary Fund (IMF) view transportation services as a crucial component of the service sector, encompassing transportation activities and related support services, directly contributing to the value of service exports and the balance of payments of each country (World Bank & IMF, 2025). This perspective affirms that transportation services are not only technically significant but also an economic sector that generates substantial added value.

Furthermore, according to service theory in economics, transportation services are

classified as intangible services, where customers do not possess a specific physical product but experience the outcome of the service delivery process (Service economics, 2025). Customers using transportation services not only benefit from the travel itself but also evaluate the quality of the service through the entire experience process, including booking, payment, information provision, and service quality.

From synthesizing the above viewpoints, it can be summarized that: Transportation services are the activity of providing services to move passengers or goods from one place to another through appropriate means of transport, infrastructure, and technology, in order to meet the circulation needs of society according to the criteria of safety, convenience, timeliness, and economic efficiency.

#### 2.1.2. Characteristics of transportation services

Transportation services, as a specific type of service in the field of transport and logistics, possess the basic characteristics of services in general while also having unique attributes stemming from the "movement" nature of goods and passengers. These characteristics directly affect the way in which transportation is organized, operated, quality managed, and technology applied in modern transportation activities.

##### (1) The Intangibility of Transportation Services

Transportation services are intangible, meaning that customers cannot observe, evaluate, or check the quality of the service before using it. According to service economics theory, intangibility makes it difficult for consumers to assess quality, thereby increasing the role of supporting tangible factors such as means of transport, facilities, brand, and corporate image (Service economics, 2025).

In the transportation sector, service quality is only perceived by customers through actual experiences throughout the service usage process, including safety, punctuality, service attitude, convenience, and comfort. Therefore, transportation businesses need to pay special attention to the consistency and reliability of the service to enhance customer satisfaction and loyalty.

##### (2) Cannot be stored or stockpiled

Another important characteristic of transportation services is their non-storability or non-stockpilability. According to service theory, services cannot be stockpiled for

future use; if not consumed at the time of supply, they are completely lost (Service economics, 2025). In transportation, a trip departing with unutilized capacity means that the excess service cannot be replenished or reused.

This characteristic places high demands on transportation businesses in forecasting demand, scheduling vehicles, and optimizing capacity utilization. The application of information technology, especially online booking and scheduling systems, plays a crucial role in limiting resource waste and improving business efficiency. According to OECD (2006), digital solutions in transport services help businesses improve resource allocation and maximize revenue per trip.

### (3) The inseparable nature of production and consumption

Transport services are characterized by the simultaneous production and consumption processes, meaning that the service is provided and consumed at the same time. Transportation only truly exists when customers directly participate in the service usage process, such as when passengers travel on the vehicle or when goods are being transported (Service economics, 2025).

This characteristic makes the quality of transport services highly dependent on human factors and the real-time service delivery process. Therefore, improving the skills of personnel, standardizing service processes, and applying supporting technologies are key factors that help transport businesses improve service quality and competitiveness in the market (UNECE, n.d.).

### 2.1.3. The role of transportation services in the economy and tourism

Transportation services play a strategic role in connecting economic, trade, and tourism activities. The main roles can be presented as follows:

#### (1) Promoting the circulation of goods and economic development:

Transportation services are the backbone of the supply chain, ensuring that goods move from producers to consumer markets in a timely and efficient manner. The development of the transportation system helps reduce logistics costs, increase the competitiveness of businesses, and contribute to price stability and maintaining the supply of goods.

#### (2) Supporting the growth of international trade and commerce:

Transportation not only serves domestic needs but also acts as a bridge for import and export activities. Modern seaports, airports, railways, and roads help reduce transportation time and costs, thereby facilitating businesses' participation in the global value chain.

(3) Contributing to the development of the tourism industry:

In the tourism sector, transportation services are a key factor in attracting tourists. A convenient and safe transportation system allows tourists to move between destinations, thereby enhancing the tourism experience and increasing industry revenue. For example, road transport services combined with online booking help tourists easily access tours in Central Vietnam, while also promoting the demand for local accommodation, food, and entertainment services.

(4) Promoting digital transformation and business modernization:

The application of information technology in transportation services, such as online vehicle booking management systems, journey tracking, and electronic payments, not only improves operational efficiency but also creates conditions for businesses like Vitraco to develop sustainable services, optimize resources, and meet customer needs quickly and accurately.

**2.2. Application of e-commerce in the transportation sector**

In the context of rapid digital transformation, e-commerce has become a strategic tool for transportation businesses to improve operational efficiency, reduce costs, and enhance customer experience. E-commerce is not simply a sales channel but also a platform for managing and optimizing logistics, marketing, and customer service. For businesses like Vitraco, applying e-commerce to their website and digital platforms has opened up new opportunities in providing online transportation services.

2.2.1. E-commerce models

<b>Models</b>	<b>Short definition</b>	<b>Main target</b>	<b>Trading cycle</b>	<b>Scale of value</b>	<b>Suitability for transport</b>
<b>B2C</b>	Businesses that sell services/products directly to individual consumers.	Individual consumers	Short	Low - medium	Very convenient (booking tickets, renting cars, shuttle, tours)

<b>B2B</b>	Business-to-business transactions, providing services/products under contract.	Businesses, organizations	Long, multi-step approval process	Big	Suitable (transportation contracts, corporate logistics)
<b>C2C</b>	Individuals who provide services/sell goods to other individuals through an intermediary platform.	Individual consumers	Short to medium	Low	Applicable (ride-sharing, personal delivery)
<b>G2C</b>	Government services are provided online to citizens and businesses.	Citizens, organizations	Stable, following administrative procedures.	Varies by service	Applications for public services related to transportation (licensing, traffic fines).

*Table 2.1 E – commerce models*

E-commerce models are primarily distinguished by the relationship between the buyer and seller, the nature of the transaction, and the technical operational requirements. The B2C model, meaning businesses sell directly to individual consumers, is a common and easily recognizable model in the modern transportation

sector: businesses providing ride-hailing, car rental, ticket sales, or shuttle services use websites and mobile applications to reach individual customers. B2C focuses on user experience, simplifying the service booking journey from the moment the customer searches for information to the completion of payment and service delivery. Because transactions typically have short cycles, decisions depend heavily on emotional factors, price, reliability, and immediate experience, B2C businesses must invest heavily in interfaces, instant payment features, and customer feedback and service systems. In transportation, the "perishability" of seats or trips makes the B2C channel even more reliant on inventory management tools and early booking incentives to optimize asset utilization rates.

The B2B model differs fundamentally as transactions occur between business entities, often involving long-term contracts, complex payment terms, and system integration requirements. In the transportation context, B2B is manifested through contracts for transporting goods for manufacturers, partnerships for providing employee shuttle services for businesses, or logistics services between companies. These transactions require sophisticated customer relationship management (CRM) systems, API integration capabilities with the customer's ERP/SCM, volume-based pricing policies, and commitments to service quality. Businesses providing B2B services typically rely less on the consumer interface and focus on infrastructure stability, contract security, risk management, and data mining capabilities to optimize operating costs.

The C2C model, where consumers transact directly with other consumers through an intermediary platform, is widely applied in transportation segments, particularly in a community- and sharing-oriented manner. Examples include platforms connecting individuals with available vehicles to those needing short-distance rentals, or personal delivery platforms. C2C often employs rating mechanisms, escrow, or payment systems to reduce risk and optimize a trustworthy experience for both parties. The centralized pricing of C2C offers advantages such as diverse supply sources and more flexible costs; however, it also demands standardized service, quality control mechanisms, and dispute resolution capabilities between parties on the platform. In transportation, the C2C model typically creates a multi-tiered service ecosystem, where smaller service providers can

more easily enter the market, while customers have more choices tailored to their personalized needs, flexible pricing, or specific service scope.

For the G2C model, online public services related to transportation are increasingly expanding, including: driver's license issuance, vehicle registration, payment of traffic fines, application for transportation business licenses, or vehicle journey information lookup. G2C systems aim for transparency, stability, and compliance with administrative procedures, saving time and costs for businesses and citizens. In the transportation sector, integrating data between management agencies and transportation businesses helps improve monitoring efficiency, supports policy planning, and promotes digital transformation in transportation infrastructure management.

When focusing on the B2C model in the transportation sector, we see that its strength lies in its ability to directly reach end consumers, allowing businesses to better control the customer experience and collect behavioral data to optimize processes. B2C enables businesses to leverage strong brands through digital experiences, integrated from search to booking and online payment, saving time and maximizing profits while minimizing operating costs. However, B2C also carries risks related to seasonal demand fluctuations, and marketing channels become a core component in service delivery. Integrating booking systems with dispatch engines, GPS tracking, ETA updates, and automated notifications helps businesses monitor transactions and increase transparency for customers. Furthermore, a digital marketing strategy for B2C needs to balance optimizing organic traffic (SEO) with high-performance paid campaigns (SEA, social ads), while maintaining a customer care program, clear cancellation and refund policies, and transparent evaluation/compensation mechanisms to build long-term trust.

In summary, each e-commerce model has its own role and application in the transportation industry. B2C is the most suitable model for direct ride-hailing and rental services to individual customers, offering advantages in customer experience and data management but requiring higher standards in technology and marketing. B2B is suitable for corporate contracts, requiring trust and system coordination; C2C opens up solutions for sharing and collaboration. While traditional community platforms face challenges in terms of security and control, G2C platforms provide the legal framework and digital infrastructure for businesses to thrive. Choosing and designing the right model will determine Vitraco's online channel development strategy, supporting

optimized operations. However, a flexible combination of models is also a potential approach to improve service distribution efficiency and expand market share for businesses in the context of digital transformation.

### 2.2.2. The benefits of applying e-commerce in the transportation sector

The application of e-commerce in transportation services brings many important benefits, including:

#### (1) Cost optimization and improved operational efficiency:

E-commerce helps businesses minimize paperwork, procedures, and order processing time, while improving operational productivity. Online management systems help plan routes, track vehicle status, and forecast customer demand, thereby increasing resource utilization efficiency.

#### (2) Improved customer experience:

Customers can quickly, conveniently, and transparently search for, book, pay for, and provide feedback online. This convenience creates satisfaction, increases the likelihood of repeat customers, and enhances the business's reputation.

#### (3) Market expansion and improved competitiveness:

E-commerce helps businesses reach customers in many different areas, without being limited by geographical location. This is especially important in the tourism and transportation industry, where customer needs are diverse and dispersed. Businesses can leverage websites and applications to increase brand reach and connect with OTA (Online Travel Agency) platforms such as Traveloka, Mytour, or Booking.com.

#### (4) Collecting data and analyzing customer behavior:

Online platforms allow businesses to collect detailed data on customer behavior, such as booking frequency, vehicle type selection, service usage time, and post-service feedback. Analyzing this data helps businesses optimize marketing strategies, improve user experience, and make business decisions based on real data.

#### (5) Supporting digital transformation and sustainable development:

E-commerce is the first step in the digital transformation process of transportation businesses. Integrating electronic payments, automated ride-hailing management, and

online customer service systems not only enhances operational efficiency but also facilitates sustainable business growth, meeting the demands of the modern market.

### **2.3. E-commerce websites in management and service provision**

E-commerce websites play a central role in the digitalization of transportation businesses, especially in the context of customers increasingly searching, comparing, and booking services online. A website is not only a channel for providing information but also an integrated platform for management, operations, and customer care. For transportation companies like Vitracco, the website is a core tool for connecting services with customers, implementing marketing activities, supporting vehicle bookings, tracking journeys, and processing online transactions.

#### 2.3.1. The role of websites in transportation services.

E-commerce websites support transportation businesses in several important aspects:

a. Providing transparent and complete information:

Websites allow businesses to display information related to services such as price lists, vehicle types, schedules, transportation policies, booking procedures, and promotional programs. This helps customers easily understand the information before making a decision to use the service.

b. Supporting online booking and payment:

Online booking features automate the operational process, from receiving requests, processing orders, allocating vehicles to confirming payments. As a result, businesses reduce personnel costs, minimize errors, and enhance customer experience. Many studies show that online booking systems increase conversion rates and customer satisfaction in the transportation and tourism industry.

c. Enhancing marketing effectiveness and brand recognition:

A website is a crucial platform in digital marketing strategy, helping businesses implement SEO, Google Ads, remarketing, and track customer behavior. A professional website increases credibility, improves conversion rates, and creates a competitive advantage over other businesses in the industry.

d. Supporting customer care and providing quick responses:

Features such as chatbots, contact forms, support centers, and online reviews help businesses record feedback, resolve issues, and maintain relationships with customers. This contributes to improving service quality and brand reputation.

e. Data management and operational optimization:

Websites can integrate order management systems (OMS), customer relationship management (CRM), and user behavior data analytics. This allows businesses to forecast shipping demand, optimize vehicle schedules, allocate resources, and make decisions based on real-world data.

### 2.3.2. Basic functions of a transportation website

An effective transportation website needs to integrate all core functions to support customers throughout the process of searching, selecting, and using services. The main functions include:

a. Information lookup function:

Information lookup is the first and most important function of a transportation website. Users can view information about service types, price lists, vehicle schedules, vehicle types, transportation policies, and vehicle availability. Thanks to this function, customers can compare and choose services that suit their needs without contacting the company directly. Online lookup increases transparency and helps customers make quick decisions.

b. Vehicle booking function:

The vehicle booking function allows customers to select the route, time, pick-up and drop-off points, vehicle type, and number of passengers. The system automatically records the request, displays a provisional price, and sends a confirmation notification. Online booking simplifies the operational process, reduces staff workload, and minimizes errors when booking by phone. This is also a key function that helps businesses optimize customer volume and increase conversion rates.

c. Online payment function:

After booking a ride, customers can pay online using methods such as bank cards, e-wallets, or bank transfers. Electronic payment makes the booking process seamless, fast, and professional. At the same time, a secure payment system helps businesses minimize financial risks and enhance customer trust.

d. Feedback and review function:

Transportation websites need a review and feedback section for customers to share their experiences after using the service. This function helps businesses gather opinions, identify shortcomings, and improve service quality. For new customers, these reviews build trust and support their decision-making. Publicly sharing feedback also helps businesses enhance their reputation and transparency.

e. Customer Support Function:

The customer support function includes chatbots, online hotlines, contact forms, FAQs, and 24/7 support. Users can submit questions, request support, or file complaints directly on the website. An effective support system helps quickly resolve customer issues, thereby improving service quality, customer satisfaction, and loyalty.

### 2.3.3. Criteria for evaluating website performance

The performance of a transportation website can be evaluated through quantitative and qualitative indicators that reflect the extent to which it meets customer needs and supports the business in achieving its business goals. Basic criteria include:

a. Website Traffic:

Website traffic reflects the number of users accessing the website within a given timeframe. This is a crucial indicator for assessing brand awareness, the effectiveness of marketing campaigns, and the ability to attract customers. High traffic indicates that the website reaches many potential customers, thereby increasing the likelihood of bookings and revenue.

b. Conversion Rate:

Conversion rate shows the percentage of visitors who perform the desired action, such as booking a ride, making a payment, or leaving contact information. This is a key indicator that directly reflects the website's business performance. A high conversion rate demonstrates that the website effectively meets user needs, has a user-friendly interface, and a convenient booking process.

c. Page Loading Speed:

Page loading speed directly impacts user experience and bounce rate. Slow-loading websites cause customers to leave before making a booking, leading to reduced

revenue. Studies show that even a one-second delay can significantly reduce the conversion rate of an e-commerce website. Therefore, fast page loading speed is essential to ensure operational efficiency.

d. User Experience and User Interface (UX/UI)

UX/UI determines the ease of use, intuitiveness, and overall customer experience when accessing the website. A transportation website needs a clear, consistent layout, a simple booking process, and scientifically presented information. Good UX/UI helps customers easily find information, shortens operation time, and increases the likelihood of returning to use the service.

e. Search Engine Optimization (SEO)

SEO reflects the level of website optimization on search engines like Google. A website optimized for SEO has the potential to appear in the top search results, thereby attracting a large number of organic customers without spending on advertising. Important SEO factors include quality content, relevant keywords, fast page loading speed, and a well-structured website.

f. Security

Security is a mandatory criterion for transportation websites, especially when the website has online payment functionality and collects customer data. The website needs to be equipped with an SSL certificate, data encryption system, and measures to prevent cyberattacks (such as protection against DDoS attacks). Good security helps customers feel secure when transacting online and increases the trust of the business.

g. Customer Retention Rate

The customer retention rate reflects the level of satisfaction and loyalty of users to the website. If customers return to book rides multiple times, it shows that the website is operating effectively, the interface is easy to use, and the quality of service meets their needs. This is an important indicator in evaluating the effectiveness of a company's long-term strategy.

## **2.4. Theoretical basis of online service performance**

### 2.4.1. The concept of "operational efficiency" in service businesses

In management research, "operational effectiveness" (or service performance effectiveness) is considered the extent to which a business uses its resources to produce

the desired output at the lowest cost and highest quality. According to Porter (1996), operational effectiveness is understood as the ability to perform internal operations "better than competitors" through process optimization, waste reduction, and productivity enhancement. This is the fundamental basis for businesses to achieve sustainable competitive advantage in a service environment that demands high flexibility and precision.

From a service perspective, Zeithaml and Bitner (2003) argue that operational effectiveness is a combination of the business results achieved by the business and the value that customers perceive during the service usage process. The author emphasizes that in the service industry, especially transportation services, customer experience, satisfaction levels, reliability, and service consistency are crucial components of operational efficiency, on par with traditional financial factors.

In service marketing, Kotler & Keller (2016) define operational efficiency as "the extent to which a business achieves its goals by satisfying customer needs more effectively than its competitors." In this understanding, efficiency is not just about cost-results, but also includes the business's ability to access the market, create superior value, and maintain long-term relationships with customers.

In the field of operations management, Heizer & Render (2014) approach operational efficiency from the perspective of optimizing labor, equipment, time, and processes. Operational efficiency is considered achieved when the volume, equipment, time, and processes are optimized to create a service with the lowest cost and errors. In online transportation services, operational efficiency includes order processing speed, response time, empty vehicle rate, vehicle allocation capability, and the quality of information provided to customers in real time.

Studies on service efficiency also extend this concept to the customer factor. Parasuraman, Zeithaml & Berry (1985) argue that the level of service efficiency is reflected through the congruence between customer expectations and perceptions. When customer perceptions exceed expectations, the service is considered efficient in creating value, regardless of input resource costs. This perspective is particularly relevant to the transportation industry – where experience, safety, and reliability play a decisive role.

From the synthesis of the above perspectives, it can be understood that "operational efficiency" in service businesses is a multi-dimensional concept, encompassing financial

efficiency (revenue, profit, costs), marketing efficiency (reach, conversion rate, brand), operational efficiency (optimization of processes and resources), and customer efficiency (satisfaction, loyalty, perceived value). Therefore, evaluating the operational efficiency of online transportation services should not be limited to financial aspects but must consider the entire service supply chain and customer experience on the website platform.

#### 2.4.2. Performance indicators for evaluating online transportation services

To assess the effectiveness of online transportation services, businesses typically use the following metrics:

##### a. Online Revenue:

This is a crucial metric reflecting the effectiveness of online business. Revenue from online bookings, online payments, and supplementary services shows the success of the business in converting users into customers on the digital platform.

##### b. Online Marketing Costs:

Costs include Google Ads, Facebook Ads, SEO, online customer service, and other digital marketing tools. Businesses need to analyze the relationship between expenses and return on investment (ROI) to evaluate the level of optimization.

##### c. Successful Booking Rate:

This is the ratio of the number of completed bookings to the total number of website sessions or total booking requests. This metric reflects the system's operational capability, UX/UI quality, and the attractiveness of the service.

##### d. Customer Satisfaction Level:

Measured through online reviews, customer satisfaction surveys (CSAT), net recommendation index (NPS), or hotline/chatbox feedback. This indicator reflects the quality of transportation services and customer experience on the website platform.

##### Operational Efficiency:

Includes factors such as response time to ride requests, accuracy of information, frequency of system errors, data processing capability, booking confirmation time, and vehicle dispatch time. High operational efficiency enhances customer experience and increases resource utilization efficiency.

### 2.4.3. Tools to assist in analyzing and evaluating website effectiveness

Evaluating website effectiveness requires combining analytical tools and theoretical models to measure customer behavior and the level of business goal achievement.

#### a. AIDA Model:

AIDA (Attention – Interest – Desire – Action) is a model that describes the customer journey from the moment they learn about a service to the final action.

- Attention: The website must attract attention through engaging content, strong SEO, and online advertising.

- Interest: Provide clear, transparent information and an intuitive interface to retain customers.

- Desire: Motivate customers to book a ride through convenient features, positive reviews, and promotional programs.

- Action: Customers book a ride, pay online, or contact directly.

This model helps businesses identify strengths and weaknesses in each stage of the customer journey.

#### b. Website Analytics Tools

Some tools include:

- Google Analytics: analyzes traffic, user behavior, bounce rate, and conversion rate.

- Google Search Console: measures SEO effectiveness, keywords, display errors, and search engine friendliness.

- Heatmap (like Hotjar): tracks user behavior, where they click, or areas they are most interested in.

- PageSpeed Insights: evaluates page load speed and suggests technical improvements.

These tools help businesses understand the effectiveness of their website and make accurate optimization decisions.

## 2.5. Conclusion of Chapter 2

Chapter 2 systematized the important theoretical foundations related to transportation services and the application of e-commerce in online transportation

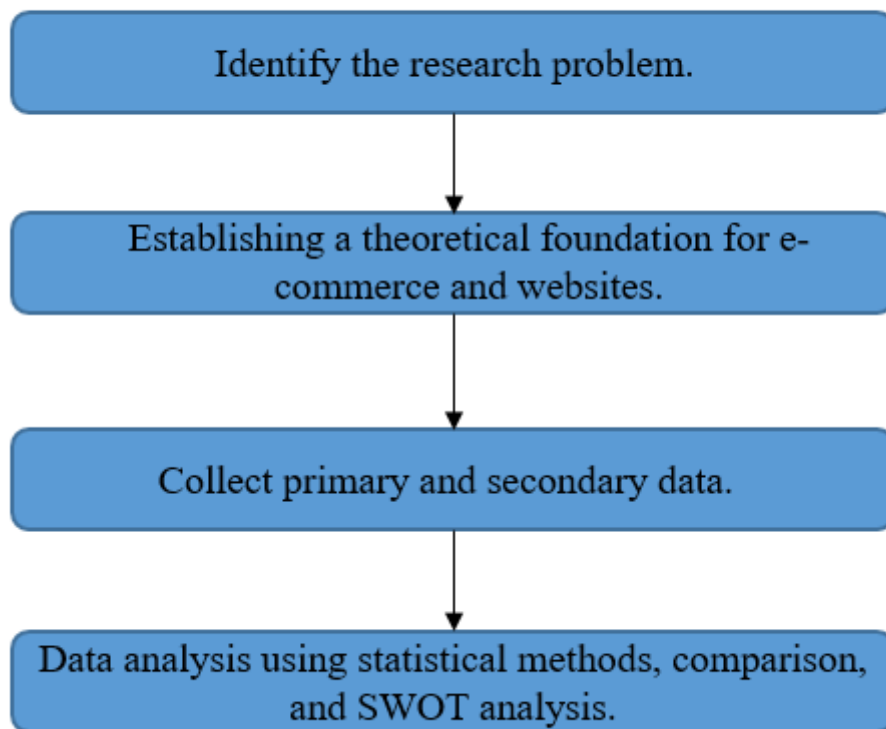
operations, creating a solid academic basis for analyzing the practical situation at Vitraco Company. First, the chapter presented the concept, characteristics, and role of transportation services in the economy and tourism, demonstrating the importance of the transportation sector for economic growth, regional connectivity, and tourism development. Simultaneously, the theoretical section clarified how e-commerce is applied in the transportation sector through online platforms, transportation management systems (TMS), ride-hailing applications, and corporate websites. Next, the chapter analyzed the components of a transportation website, its core functions, and criteria for evaluating operational efficiency, from traffic volume, UX/UI, page load speed, to security and conversion rates. Furthermore, effective analytical models such as revenue targets, marketing costs, successful booking rates, and customer satisfaction levels are presented to create a comprehensive framework for evaluating the effectiveness of online services. These theoretical foundations will serve as important scientific bases for comparing and evaluating the current state of online transportation operations at Vitraco in the next chapter, thereby proposing appropriate and feasible solutions.

## **CHAPTER 3. RESEARCH METHOD**

### **3.1. Research process**

The research process was developed to ensure the scientific, comprehensive, and feasible analysis of the effectiveness of online transportation services at Vitracco Transport and Tourism Joint Venture Company Limited. This process was conducted in five main steps, combining qualitative and quantitative research to ensure both data accuracy and clarification of theoretical and practical factors affecting business operations on the website platform.

### **RESEARCH PROCESS**



*Figure 3.1 Research Process*

#### **Step 1: Identifying the Research Problem**

First, the research focuses on identifying the core problem related to the effectiveness of Vitracco's online transportation services. This step includes analyzing the industry context, identifying challenges in website-based transportation, customer interaction, and current business results. Specific issues are identified through

evaluating internal data on website traffic, successful booking rates, online revenue, customer feedback, and marketing reports. The goal of this step is to clarify the strengths, weaknesses, and gaps between the current operational status and optimal standards in the online transportation industry, thereby creating a scientific foundation for subsequent research steps

#### Step 2: Building a Theoretical Framework on E-commerce and Websites

After identifying the problem, the research proceeds to synthesize the theoretical framework related to e-commerce, website management, and online transportation services. This step includes analyzing common e-commerce models (B2C, B2B, C2C, G2C), website performance evaluation criteria (traffic, conversion rate, UX/UI, SEO, security), and the role of technology in transportation service management. Building a theoretical framework not only helps orient research variables but also provides a theoretical basis for comparing and evaluating Vitraco's current operations.

#### Step 3: Collecting Primary and Secondary Data

To obtain data for evaluation, the study combines two types of data. Primary data is collected from customer surveys on website usage experience, satisfaction levels, online booking behavior, along with interviews with employees from the Marketing, IT, and Operations departments to gain a deeper understanding of internal processes. Secondary data includes business reports, website traffic statistics, marketing data, documents from the Ministry of Industry and Trade, the General Department of Tourism, and academic research on e-commerce and transportation services. Combining primary and secondary data ensures objectivity and accurately reflects the practical context of the business.

#### Step 4: Data Analysis using Statistical, Comparative, and SWOT Methods

After collecting the data, the research proceeds with processing and analysis to draw scientific conclusions. Descriptive statistics are used to summarize data on website traffic, booking rates, online revenue, and customer satisfaction. Comparative methods are used to compare the performance of the Vitraco website with other businesses in the same industry in the Central region. Simultaneously, a SWOT analysis is conducted to assess the strengths, weaknesses, opportunities, and threats of the business in the online environment. Combining these methods allows the research to both describe the current situation and analyze the causes, providing a scientific basis for proposing solutions.

### **3.2. Research Methods**

To ensure the research yields comprehensive, objective, and feasible results, the study combines both qualitative and quantitative research methods, along with the application of a comprehensive analysis of secondary documents. This combination aims to capture a quantitative picture of customer behavior and online business effectiveness, while also conducting in-depth analysis of internal factors, operational processes, and website management strategies of the enterprise.

#### 3.2.1. Qualitative method

The qualitative approach was primarily conducted through in-depth interviews with employees from the Marketing, IT, and Operations departments. The goal of this method was to understand the operational processes, mechanisms, and the difficulties and limitations that the Vitraco website is facing in providing online transportation services. The interviews focused on gathering information about order management, customer data processing systems, payment processes, and online customer support.

Through the qualitative approach, the study evaluated the soft aspects of management, such as coordination between departments, personnel capabilities in website operation and management, and the digital marketing strategy being applied. The results from the interviews provided crucial qualitative information to explain the quantitative results, clarifying the root causes of problems in the effectiveness of online service operations.

#### 3.2.2. Quantitative methods

The quantitative method was conducted through a survey of customers who had previously used Vitraco's online transportation services via the website [chothuexedanang.vn](http://chothuexedanang.vn). The survey subjects included individual customers and tourists who had searched for information, submitted booking requests, or completed bookings on the website during the research period.

The survey was conducted with an estimated sample size of 120 to 150 valid responses, ensuring sufficient reliability to reflect trends and assess user experience with the company's online transportation services. Survey data was primarily collected through online forms (Google Forms) and sent to customers after they used the service or completed the booking process.

The questionnaire was designed as a closed-ended question using a 5-point Likert scale (from 1 – strongly disagree to 5 – strongly agree), focusing on the following main areas:

- Overall satisfaction with Vitraco's online transportation service
- User experience with the website, including interface, layout, ease of use, and information search capabilities
- Website reliability, demonstrated through information accuracy, response speed, and perceived safety when providing personal information
- Customer online booking behavior, including frequency of use, ability to complete the booking process, and willingness to continue using the website in the future
- Evaluation of online support services such as hotline consultation, chatbox, request processing time, and ability to receive and respond to order information
- Customer expectations for enhanced features, especially online payment and order status tracking Vehicles

The data collected after the survey will be compiled and analyzed using descriptive statistical methods, including frequency, percentage, mean, and standard deviation, to identify key trends and customer satisfaction levels. In addition, a comparative method will be used to compare customer expectations with actual experiences using the website, thereby clarifying limitations and proposing solutions to improve the effectiveness of Vitraco's online transportation services.

### **3.3. Data types**

During the research process, the study used a combination of two main types of data: primary and secondary data, to ensure that the analysis results are reliable, multi-dimensional, and accurately reflect the practical operation of online transportation services at Vitraco Transport and Tourism Joint Venture Company Limited.

Primary data was collected directly through surveys of customers who have used and are currently using the online ride-hailing service on Vitraco's website, along with in-depth interviews with employees from the Marketing, IT, and Operations departments. Customer surveys focused on content groups such as: satisfaction with the

website interface and speed, ability to search for service information, booking process, payment experience, post-service feedback, and willingness to return to use the service. Employee interviews mainly focused on website operation processes, technology used, technical bottlenecks, data integration status, and user support capabilities. Primary data helps research directly and accurately reflect the actual perceptions of users and operational personnel, thereby clarifying the causes of limitations in online business operations.

Secondary data is collected from many reliable sources such as: revenue reports, website traffic statistics, marketing campaign data, management documents from the Ministry of Industry and Trade, the Vietnam National Administration of Tourism, and scientific research works related to e-commerce and online transportation. Academic literature from reputable authors in the field of e-commerce and digital transformation such as Buhalis (eTourism), Laudon & Traver (E-commerce), Philip Kotler, Parker et al. (Platform Revolution) contributes to strengthening the theoretical foundation and providing a systematic analytical framework. Secondary data helps compare with the results of actual surveys, while also providing market context and digital transformation trends in the transportation industry.

### **3.4. Data source**

The data sources for this research are divided into two main groups: internal data from Vitracco and external data sources to ensure the objectivity, timeliness, and completeness of the conclusions.

Internal data sources include:

- Website activity reports for online ride-hailing.
- Statistics on the number of successful bookings, cancellation rates, and conversion rates for each period.
- User behavior analysis data from Google Analytics such as traffic, time on page, bounce rate, traffic sources (organic, referral, direct, social), and user flow.
- Customer feedback, complaints, and reviews via hotline, email, online review forms, or customer service representatives.
- Reports on digital marketing campaigns, advertising budgets, and performance (CPC, CPM, CPA).

These internal data directly reflect the operational efficiency and customer interaction with the website, and are an important basis for evaluating the quality of the business's online services.

External data sources include:

- Textbooks and specialized books on e-commerce and digital marketing such as Platform Revolution (Parker et al.), eTourism (Buhalis), E-commerce 2024 (Laudon & Traver),...

- Academic research published domestically and internationally on e-commerce, online user behavior, and digital transformation in the transportation and tourism industries.

- National digital transformation reports, transportation and tourism industry reports published by the Ministry of Industry and Trade, the Vietnam National Administration of Tourism, and other professional organizations.

- Market information from analytics platforms such as SimilarWeb, Statista (if available).

- Combining these two data sources provides the study with a comprehensive view, from internal realities to the market context and digital transformation trends, thereby enhancing the reliability, timeliness, and practical applicability of the research.

### **3.5. Data analysis**

#### 3.5.1. Descriptive statistical analysis

Descriptive statistical analysis was used to summarize and present the basic characteristics of the dataset collected from customer surveys and Vitraco website operational data. Through indicators such as frequency, percentage, mean, and standard deviation, this method helps describe user behavior, satisfaction levels, access frequency, booking processes, and factors influencing online experience. Synthesizing these characteristics allows the study to identify general customer trends, detect limitations in the website user experience, and provide a foundation for further in-depth analysis.

### 3.5.2. Comparative analysis

Comparative analysis was applied to compare the performance of Vitracco's website over various time periods, as well as with several competing online transportation businesses. Metrics such as website traffic, bounce rate, conversion rate, number of bookings, and online revenue were used to assess improvement or decline over time. Simultaneously, this method helped identify the performance gap between Vitracco's website and its competitors, thereby identifying areas for optimization to enhance competitiveness in the increasingly developing online transportation market.

### 3.5.3. SWOT analysis

The SWOT analysis was used to comprehensively assess the internal and external environmental factors affecting Vitracco's online transportation operations. The analysis focused on identifying strengths such as brand reputation and operational resources; weaknesses such as limitations in website interface or feature integration capabilities; opportunities arising from the digital transformation trend in tourism and transportation; and challenges from high competition, technology costs, and changing customer behavior. Using SWOT analysis helps the company understand its current position and develop appropriate strategies to improve business efficiency on its online platform.

### 3.5.4. Analysis using the AIDA model

The AIDA model is used to analyze the customer journey when interacting with a website, encompassing four stages: Awareness, Interest, Desire, and Action. This method allows for the evaluation of website attractiveness through displayed content, user retention, the ability to persuade customers to move from search to interest, and the effectiveness of factors driving booking decisions. AIDA analysis helps identify bottlenecks in the customer journey and proposes solutions to optimize the interface, content, response speed, and booking process.

### 3.5.5. Analysis using Porter's Five Forces model

Porter's Five Forces model is used to assess competitive pressure in the online transportation industry, including: pressure from existing competitors, potential competitors, substitute products, customer bargaining power, and supplier power. Through this model, the study analyzes the intensity of competition in the industry; the

potential for the emergence of new transportation platforms; the risk of customers switching to other services such as ride-hailing services; the degree of dependence on technology suppliers or transportation partners; and the bargaining power of customers in the digital environment. The analysis results clarify Vitraco's position in the industry and provide an important basis for developing strategies to enhance competitiveness.

### **3.6. Conclusion of Chapter 3**

The collected data was processed using various analytical methods to ensure the research results were objective and highly reliable. First, descriptive statistical analysis was used to summarize the basic characteristics of the survey data, reflecting satisfaction levels, user behavior, website access frequency, and ride-hailing experiences. Simultaneously, comparative analysis was applied to compare the performance of the Vitraco website over the years, as well as with competitors in the industry, helping to identify the company's position in the online transportation market. Furthermore, SWOT analysis allowed for the systematization of internal strengths and weaknesses, while identifying opportunities and threats from the external environment, serving as a basis for proposing solutions.

Furthermore, the study applies the AIDA model to analyze the customer journey from Awareness, Interest, Desire to Action, thereby evaluating the effectiveness of the website in attracting and converting customers. Finally, Porter's Five Forces model is implemented to assess the level of competition in the online transportation industry, including pressure from current competitors, potential competitors, substitute products, and the bargaining power of customers and suppliers. The combination of these diverse analytical methods clarifies the current state of Vitraco's website operation, providing a scientific foundation for proposing solutions to promote online transportation services in the next chapter.

## **CHAPTER 4. ANALYSIS OF THE CURRENT SITUATION OF TRANSPORTATION SERVICES ON VITRACO'S WEBSITE PLATFORM**

### **4.1. General introduction to Vitraco company**

#### **4.1.1. General introduction**



*Figure 4.1 Logo Vitraco*

- Company Name: VITRACO TOURISM AND TRANSPORTATION CONNECTION CO., LTD
- English Name: VITRACO TOURISM AND TRANSPORTATION CONNECTION CO., LTD
- Trade Name: VITRACO., LTD
- Representative: Mr. NGO TAN NHI; Position
- Company Logo: Logo
- Head Office: 394B Dien Bien Phu Building, Thanh Khe District, Da Nang City
- Phone: 02363.726.726 – 3.78.78.78\* Fax: 0236.3711143

- Account Number: 2015201001340 at the Agricultural and Rural Development Bank, Tan Chinh Branch, Da Nang

- Email: vitracco@vitracco.vip

- Website: www.vitracco.vip

- Business Registration Certificate No.: 0400447748 Date of Issue: 23/05/2003

- Issuing Authority: Da Nang Department of Planning and Investment

- Business Type: Limited Liability Company

a. Corporate Culture

- Internal motto: "Working Together for Success"

- External motto (Customers, Partners, Colleagues): "Give a little, receive a thousand benefits."

b. Business Philosophy:

VITRACO always values corporate social responsibility and environmental commitment, developing products and business activities based on the principle of harmonizing corporate interests with social interests and being environmentally friendly.

c. Core Values:

- Quality – Reputation – Satisfaction

Vitracco upholds these values with the goal of building trust and credibility through the highest sense of responsibility towards customers.

- Dedication – Passion – Intelligence

Vitracco aims to cultivate a typical style for its employees: always dedicated, working with passion and enthusiasm.

- Cooperation – Sharing – Sincerity

Vitracco values cooperation and harmony based on honesty. To act together and develop together.

- Innovation – Improvement – Efficiency

Vitraco wants to create a favorable environment where everyone can fully utilize their creativity and innovation to achieve the highest efficiency.

#### 4.1.2. History of formation and development

VITRACO Transport and Tourism Joint Venture Company Limited was established on March 25, 2003, amidst a growing demand for passenger transport and tourism services in Vietnam, particularly in the Central region, driven by economic development and expanding domestic and international exchanges. From its inception, the company focused on providing passenger transport and vehicle rental services to meet the travel, business, and tourism needs of individual customers, businesses, and organizations.

In its early years, VITRACO concentrated on building a solid foundation for the business, including investing in a fleet of vehicles, recruiting and training drivers and management personnel, while gradually expanding its customer network. Business operations during this period were primarily based on traditional methods, through direct relationships with customers and partners. However, with a focus on reputation, safety, and quality service, the company has gradually built trust in the transportation and tourism market.

As its operations expand, VITRACO continuously improves service quality through investment in modern vehicles, improved service processes, and diversification of service types. As a result, the company is able to provide transportation services for many large-scale events and programs, as well as serving international businesses, organizations, and clients.

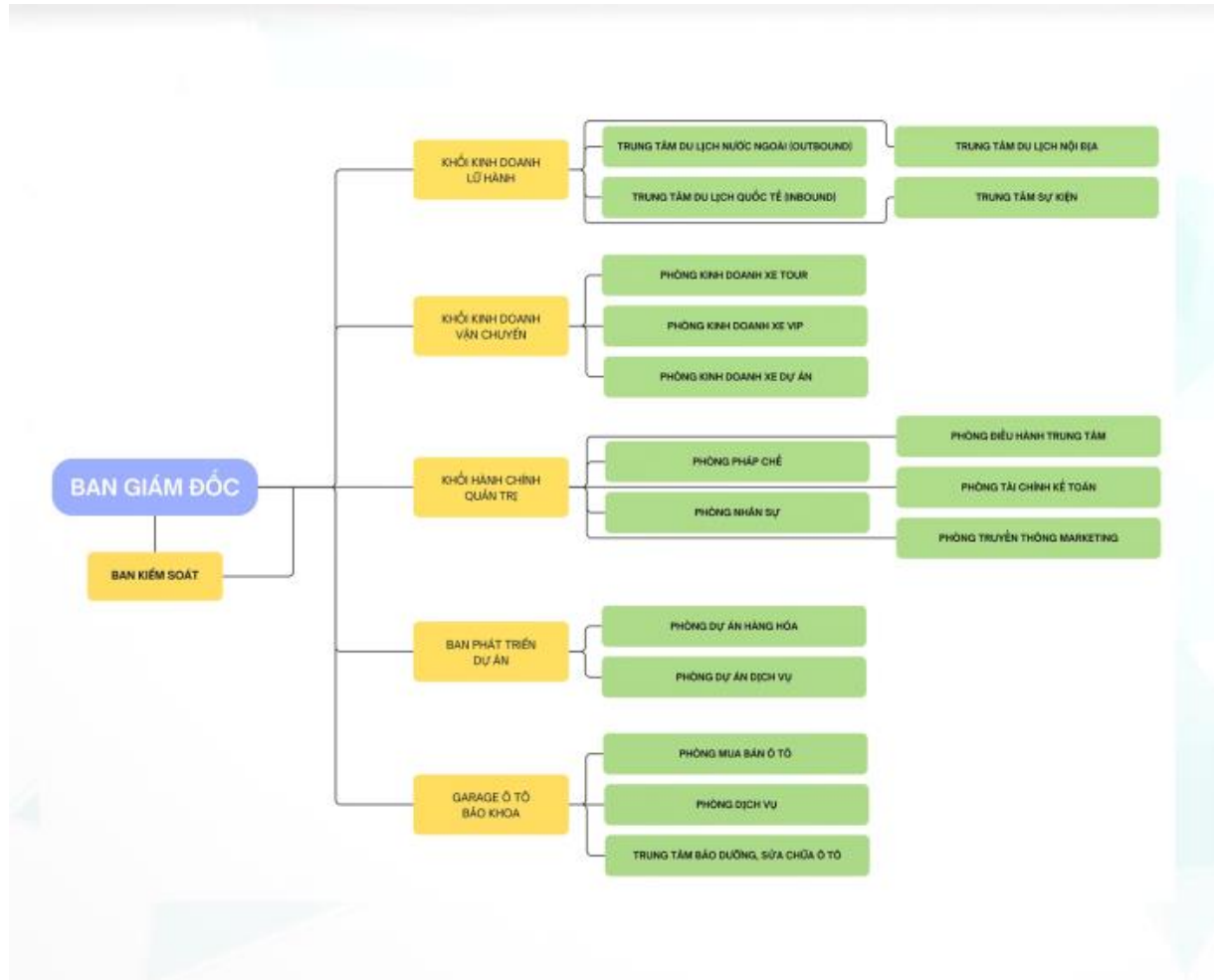
Along with the development of information technology and the trend of applying online platforms in business operations, VITRACO is gradually approaching and implementing technological solutions to support management and customer care. The construction and operation of the company's official website is considered a suitable step in line with its development process, helping to increase customer access to information and support transportation service business operations in this new phase.

Having been established and developed for over two decades since 2003, VITRACO has gradually affirmed its position in the transportation and tourism sectors,

especially in the Central region. The foundations built throughout its operation serve as the basis for the company to continue improving its services, adapting to market changes, and aiming for stable and sustainable development in the future.

#### 4.1.3. Organizational structure

The company's organizational structure is as follows:



*Figure 4.2 Organizational structure of Vitraco*

The organizational structure of VITRACO Transport and Tourism Joint Venture Company Limited is built on a centralized management model, clearly divided into functional blocks, suitable for the specific characteristics of operations in the transport and tourism sectors. At the head of the management is the Board of Directors, responsible for overall operation, strategic development direction, and decision-making regarding the company's production and business activities. In addition, the Supervisory Board plays a role in monitoring and inspecting compliance with internal regulations and laws, contributing to ensuring transparency and efficiency in business management.

Under the direction of the Board of Directors, VITRACO's organizational structure is divided into main blocks including: Travel Business Block, Transportation Business Block, Administration and Management Block, Project Development Board, and Auto Maintenance Garage. This division into functional blocks helps the company specialize its operations, improve management efficiency, and enhance coordination between departments.

The travel and tourism business unit handles activities related to tourism and travel services. This unit includes the Outbound Tourism Center, the Inbound International Tourism Center, the Domestic Tourism Center, and the Events Center. This structure shows VITRACO's orientation towards developing diverse types of tourism, meeting the needs of various customer segments, from domestic to international tourists, as well as event organization services combined with tourism.

The transportation business unit is the core of the company's operations, including the Tour Vehicle Sales Department, the VIP Vehicle Sales Department, and the Project Vehicle Sales Department. Each department is responsible for a specific transportation service segment, helping the company effectively target each customer group while improving service quality and professionalism in passenger transportation.

The administrative and management unit plays a supporting role and ensures stable operation for the entire business. This block comprises functional departments such as the Legal Department, Human Resources Department, Central Operations Department, Finance and Accounting Department, and Communications and Marketing Department. These departments are responsible for human resources, finance, legal matters, operations, and communications, contributing to a solid foundation for VITRACO's business operations and brand development.

In addition, the Project Development Board, with its cargo and service project departments, demonstrates the company's expansion into new areas, not limited to passenger transport but also encompassing projects related to logistics and supporting services. This shows VITRACO's long-term and flexible development strategy in adapting to market demands.

Finally, the Auto Garage includes the Car Sales Department, Service Department, and Auto Maintenance and Repair Center, playing a direct support role for transportation operations. This department helps the company proactively maintain and repair vehicles,

ensuring the quality of its fleet and minimizing operating costs, thereby improving business efficiency.

Overall, VITRACO's organizational chart is relatively complete, clear, and suitable for the scale and field of operation of the enterprise. This structure not only helps improve management efficiency and specialize each department but also facilitates the implementation of traditional business activities combined with development orientation in the new phase.

#### 4.1.4. Area and scale of operations

With over 20 years of experience in the Da Nang tourism market, Vitraco currently operates in the following areas:

- Organizing domestic and international tours:

Website	<a href="https://www.vitracotour.com/">https://www.vitracotour.com/</a>
	<a href="https://hanhtrinhdisanmientrung.vn/">https://hanhtrinhdisanmientrung.vn/</a>
Fanpage	<a href="https://www.facebook.com/vitracotourvn">https://www.facebook.com/vitracotourvn</a>
	<a href="https://www.facebook.com/hanhtrinhdisanmientrung.vn">https://www.facebook.com/hanhtrinhdisanmientrung.vn</a>
Tiktok Channel	<a href="https://www.tiktok.com/@vitraco.vip">https://www.tiktok.com/@vitraco.vip</a>

With over 18 years of experience in organizing tours, VITRACO has become a reliable and long-term partner of leading Vietnamese corporations in organizing corporate tours, including Hoa Phat Group, BIDV Bank, Vietnam Electricity Group, Vietnam Post, etc. In addition, we have served international groups from South Korea, China, the UK, France, the USA, and more.



*Figure 4.3 Vitraco TOUR*

- Tourist transportation, project vehicle rental from 4 to 45 seats

Website: <https://chothuexevip.vn/>

Facebook fanpage: <https://www.facebook.com/vitraco.vip>

Vitraco proudly stands as a leading tourist and self-drive car rental company in Da Nang, with nearly 200 vehicles including a variety of tourist cars from 4, 7, 16, 29, and 45 seats to serve the needs of family trips, weddings, business trips, and airport/hotel transfers. VITRACO is committed to providing the best quality and service experience for our customers' journeys.

Current car rental services offered by Vitracovip: self-drive car rental, tourist car rental, VIP Limousine rental, wedding car rental.



*Figure 4.4 Vitraco parking lot*

- Car Repair and Sales

Website: <https://otobaokhoa.com/>

Facebook Fanpage: <https://www.facebook.com/garabaokhoa>

Faced with the great demand from customers and understanding their desire to find a reputable, high-quality, and professional car repair garage in Da Nang, Bao Khoa Auto Garage opened and began operations on July 1st, 2009. With an area of 2250 square meters at 38 Vo Chi Cong Street, Cam Le District, Da Nang City, this location is considered convenient for all types of vehicles to access the garage for repair and service. Bao Khoa Auto Repair Workshop is divided into two separate areas. Area A is for passenger cars and tourist vehicles from 4-16 seats. Area B is used for repairing buses and trucks. Bao Khoa Garage is equipped with the most modern and advanced specialized equipment, managed by highly skilled and experienced technicians.

Current services offered by Bao Khoa:

- Bodywork, welding, engine and chassis repair
- Paint drying and curing – paint color change services
- Quick fault diagnosis and clearing using electronic equipment
- Maintenance – periodic vehicle inspection services
- Oil changes (engine, differential, gearbox, brake fluid, power steering)
- Electrical and air conditioning system repair
- Buying and selling auto parts and accessories
- Interior decoration: Floor covering – Seat upholstery – Ceiling trim
- Stereo sound system installation
- Car washing – Vacuuming – Interior cleaning
- Insurance advice for collisions or scratches



*Figure 4.5 Bao Khoa auto*

- 119 Rescue Service

Established in 2003 – after more than 18 years of development, 119 Rescue Service has established itself as a leading rescue service provider in Da Nang and Central Vietnam. With a team of experienced, well-trained staff and a modern fleet of rescue vehicles, 119 Rescue Service has long been a trusted address for customers.

With the motto of SAFETY - SPEED - ECONOMY, 119 Rescue Service always ensures the safest and fastest vehicle rescue and transportation at the most reasonable cost for customers. 119 Rescue Service will always strive to improve, training a new generation of high-quality staff, upgrading to modern vehicles, and raising rescue standards to provide customers with the best possible service.

Current services offered by 119 Roadside Assistance:

- Towing/repairing vehicles involved in traffic accidents where the driver is unable to handle the situation.
- Jump-starting, charging, and recharging batteries when your vehicle unexpectedly breaks down on the road, due to electrical leaks causing a dead battery, or an old battery with poor charge capacity.
- Refueling vehicles that suddenly run out of gas.
- Unlocking car doors when you have lost your car keys.
- Mobile tire repair, replacement, and spare tire replacement – fast and economical.



*Figure 4.6 Traffic rescue*

#### 4.1.5. Company resources

##### 4.1.5.1. Facilities

To date, Vitraco has a total of 3 branches in 3 major cities: Da Nang (headquarters), Hanoi, and Ho Chi Minh City. In addition, the company possesses modern facilities for each service. With the business principle of "Reputation and Quality," Vitraco always equips each branch with the necessary services and facilities to ensure customers always experience and use the most perfect service.

##### Facilities at offices and service locations in Da Nang

STT	Office/Service Center	Facilities
1	Vitraco Tour	6 Canon PIXMA G1010 inkjet printers
2	Car Rental, Travel Transportation	Over 50 HP desktop computers 6 air conditioners, Wi-Fi 4 cameras 1 conference room with a 50m <sup>2</sup> projection area 200 THACO EVERGREEN S81 29 travel vehicles Over 200 rental cars (ranging from budget to luxury brands) Elevator system Various office supplies including desks, office chairs, paper, pens, etc
3	Auto Repair and Rescue by Bao Khoa Auto	Area: 2,250 m <sup>2</sup> Two sections, A and B, for vehicles ranging from 4-16 seats and passenger buses

		<p>Autel Maxidas diagnostic scan system</p> <p>Repair software: Alldata, Ondemand</p> <p>Equipment for injector cleaning and combustion chamber maintenance without engine removal</p> <p>Dry sanding machines and a paint baking room for quick body repair</p>
4	Bao Chau Eye Examination	<p>Equipment imported from Germany, state-of-the-art</p> <p>The clinic is spacious and located on the bustling Dien Bien Phu Street</p>
5	Event Organization	<p>Complete, modern lighting and sound system (LED par lights, LED P4 outdoor screens, QHA Kara 210 Array speakers, microphones)</p> <p>Team-building equipment such as: colored smoke, medium-to-high fireworks, spinning fireworks, inflatable balloons, etc.</p>

*Table 4.1 Facilities at the offices and service centers in Da Nang*

The above is just the basic infrastructure at our service facilities in Da Nang. At our facilities in Hanoi and Ho Chi Minh City, the number of facilities may be added or removed depending on the scale of the company. However, we will still ensure that we have all the modern equipment listed above.

With the above equipment, Vitraco ensures the health and safety of both employees and customers, while also maintaining cost efficiency and improving the quality of our products and services. Furthermore, this modern office supplies system helps the company save costs and ensures flexibility for employees when adjusting and producing products and services.

However, in the field of event organization, for a company with a strong brand and reputation in the Da Nang market like Vitraco, owning the equipment mentioned above is considered "less diverse," which will result in the company's service quality in this field being inferior to its competitors in the Da Nang market.

#### *4.1.5.2. Human resources*

Currently, Vitraco owns 3 tourism service facilities in 3 major cities: Da Nang, Hanoi, and Ho Chi Minh City, as well as facilities for car repair, roadside assistance,

eye examinations, tourist transportation, and car rental. Therefore, Vitraco has a large and young workforce.

Despite this large and young workforce, Vitraco always ensures the quality and experience of its employees. The company has a training program, organizes training for young employees, and conducts evaluations to strengthen the skills of long-term employees. Some training programs organized by Vitraco:

- April 12, 2024: Regular training program for Vitraco drivers
- March 7, 2024: Business training course for Vitraco officers and employees
- February 10, 2024: Training course to improve teamwork skills and direct communication with customers for Vitraco employees

To date, Vitraco has over 400 employees with extensive experience in sales, customer service, car and truck repair, event organization, etc.

In particular, at Vitraco Head Office in Da Nang, the staff structure in the departments is as follows:

*Unit: Persons*

Positions		Number of Employees	Characteristics			
			Age Range			Qualifications
			25 - 30	31 - 40	>40	
Deputy Director	Tourism	1			1	University Degree
Employee	Sale Tour	8	4	3	1	University Degree
	Marketing	2		2		University Degree
	Tour Management	2	1	1		University Degree
	Tour Transportation Management	3		3		University Degree
<b>TOTAL</b>			<b>16</b>			

*Table 4.2 Employee Structure at Vitraco Tour Department*

Unit: Persons

Positions		Number of Employees	Characteristics			
			Age Range			Qualifications
			25 - 30	31 - 40	>40	
Deputy Director	Operations and Control	1			1	University Degree
Employee	Sale	5	2	3		University Degree
	Management	2		2		University Degree
	Customer Service	2	1	1		University Degree
<b>TOTAL</b>			<b>10</b>			

Table 4.3 Employee Structure at the Tourist Transportation Department

Unit: Persons

Positions		Number of Employees	Characteristics			
			Age Range			Trình độ
			25 - 30	31 - 40	>40	25 - 30
Chief Accountant	Summary	1	Chief Accountant	Summary	1	Chief Accountant
	Payment	1		Payment	1	Đại học
Employee		4	Employee		4	Employee
<b>TOTAL</b>			<b>6</b>			

Table 4.4 Employee Structure at the Accounting Department

Unit: Persons

Positions		Number of Employees	Characteristics			
			Age Range			Trình độ
			25 - 30			25 - 30
Management	Fleet	2	Management	Fleet	2	Management
	Supplies	2		Supplies	2	Cao đẳng
Security	Office	2	Security	Office	2	Security

	Parking Lot	3		Parking Lot	3	X
Employee	Cleaning Staff	2	Employee	Cleaning Staff	2	Employee
	Driver	87		Driver	87	51 Bằng E 26 Bằng D 7 bằng B,C
<b>TOTAL</b>		<b>98</b>				

*Table 4.5 Employee Structure of the Service Division*

*Unit: Persons*

Positions		Number of Employees	Characteristics			
			Age Range			Trình độ 25-30
			25-30	31- 40	>40	
Management	Department Head	1	Management	Department Head	1	Management
	Deputy Department Head	1		Deputy Department Head	1	
Employee		4	Employee		4	Employee
<b>TOTAL</b>		<b>6</b>				

*Table 4.6 Employee Structure of Vitraco's Human Resources Department*

This is the basic staffing structure for Vitraco's service departments in Da Nang. At other locations, the number of employees may increase or decrease depending on the scale of operations, but the structure of positions and roles will remain the same.

Through the personnel structure and resources at the Da Nang location, it can be seen that Vitraco possesses a significant number of highly trained and specialized employees. This helps the company's operations run efficiently, and enhances customer experiences with Vitraco's products and services.

However, the number of highly experienced personnel at the company is trending towards "aging," which may affect some aspects and activities of the campaign to reach new customer groups – the company's potential young customers.

*4.1.5.3. Financial resources*

After the Covid 19 pandemic, the tourism situation has been gradually recovering rapidly. This has helped Vitraco grow in both revenue and number of employees in the past 3 years, specifically as follows:

*Unit: Milion VND*

<b>Numerical order</b>	<b>Target</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
1	Charter capital	20.000	20.000	22.000
2	Revenue	135.436	140.596	158.000
3	Profit before tax	635	9.866	12.500
4	Payment to the budget	127	1.973	2.500
5	Profit after tax	508	7.893	10.000
6	Total number of employees (person)	130	160	185
7	Average income per employee (million VND/person)	8	8	9
8	Participation in social activities	650	870	1,050

*Table 4.7 Vitraco's revenue in 2022 – 2024*

Based on Table 4.7, it can be seen that Vitraco's business performance shows a clear growth trend during the period 2022–2024, with 2024 data used for simulation purposes as the company does not provide official data for subsequent years.

Specifically, revenue in 2023 increased by 3.81% compared to 2022, indicating stable business growth. Notably, pre-tax profit in 2023 increased significantly compared to 2022, reflecting a substantial improvement in cost management and service efficiency. In 2024, revenue and profit are assumed to continue growing at a higher rate, consistent with the recovery trend of the transportation and tourism industry and the expansion of the company's operations. This suggests that Vitraco has the potential to increase its economic value if it continues to maintain its current business strategy.

Besides financial indicators, the size of the workforce and the average income of employees also tend to increase, showing that the company is not only focused on profit but also on human resources. At the same time, the level of participation in social activities in Da Nang city has steadily increased over the years, reflecting Vitraco's social responsibility and positive image in the local community.

Overall, the figures for the period 2022–2024 show that Vitraco is optimizing business performance, maintaining a relatively stable financial situation, and enhancing its competitiveness in attracting customers, providing services, and retaining personnel. However, the company has not yet provided official figures for 2025, therefore there is no basis to assess long-term growth trends. Furthermore, high profit growth in the short term cannot be definitively considered sustainable, as business results are also affected by market fluctuations and the company's operational strategies at different times.

#### **4.2. Current status of Vitraco's e-commerce website implementation**

In the process of transitioning from a traditional business model to a hybrid online model, VITRACO has identified its website as the central platform for providing service information and supporting online transportation business operations. The implementation of an e-commerce website helps the company expand its customer reach, enhance its professional image, and gradually adapt to the digitalization trend in the transportation and tourism industry.



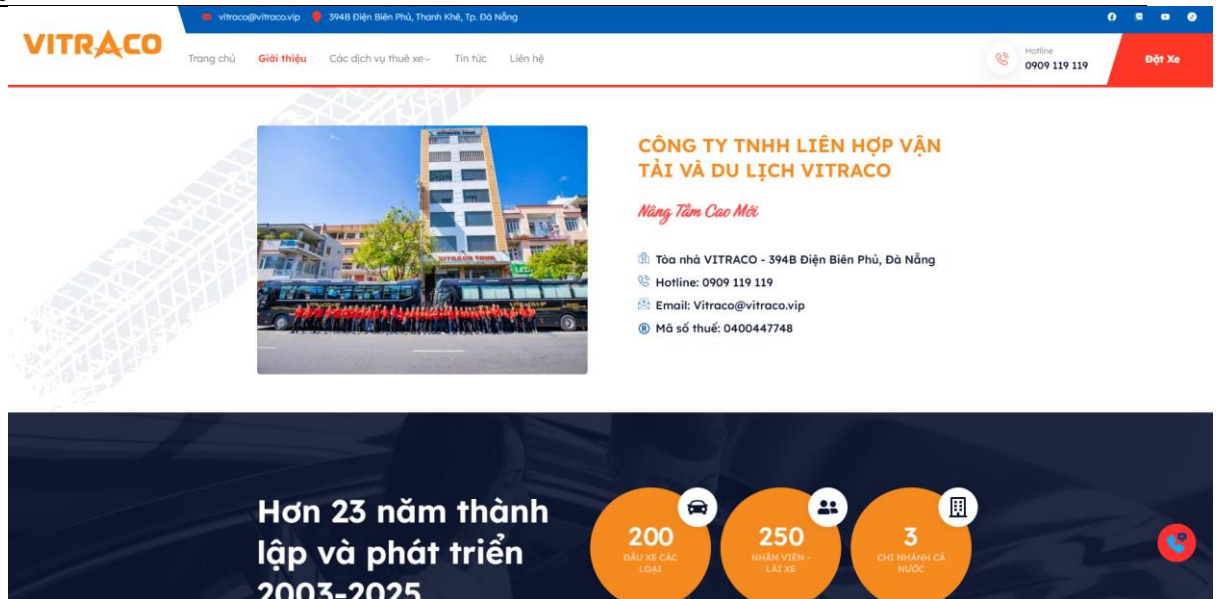
*Figure 4.7 Vitraco's car rental website*

VITRACO's website currently serves as a business introduction channel, providing detailed information about transportation services, price lists, service areas, and necessary contact information. In addition, the website supports customers in submitting booking requests, receiving service consultations, and providing feedback. However, in terms of development, the company's website is still only at the stage of partial online sales, not yet a complete e-commerce system with an automated process from service booking to payment and customer care.

In practice, the website has contributed to improving customer reach and helping customers find information online before using the service. However, the effectiveness of the website has not yet reached its full potential due to limitations in technology, user experience, and integration with the company's internal operating systems.

#### 4.2.1. Interface, structure, and features

VITRACO's website is designed with a clear interface layout, suitable for providing online car rental services. The main menu is located at the top of the page, including sections such as Home, About Us, Car Rental Services, News, and Contact, making it easy for visitors to navigate and access information according to their needs. On the homepage, the website displays a service search area with basic information fields such as pickup location, usage time, and vehicle type, helping users quickly find suitable services.



*Figure 4.8 Website interface*

The website's content layout is organized into clearly defined functional blocks. The header provides an overview of the business through illustrative images, brand identity information, and information about key services. Following this are categories of car rental services, divided into types such as tourist car rental, project car rental, self-drive car rental, wedding car rental, and VIP car rental. Each service type is presented in separate sections, making it easy for customers to browse and choose.

In terms of functionality, the website provides a service search tool via a search form directly on the main interface. Users can select the type of vehicle and related information to learn about the service before deciding to use it. In addition, the website integrates an online car booking request function, allowing customers to fill in basic information and send requests to the business for confirmation and detailed consultation through various contact channels.

The payment function on the website is currently implemented through direct contact after customers submit a booking request. Information regarding payment methods is exchanged between the customer and the support department via phone, email, or other online communication channels provided on the website.

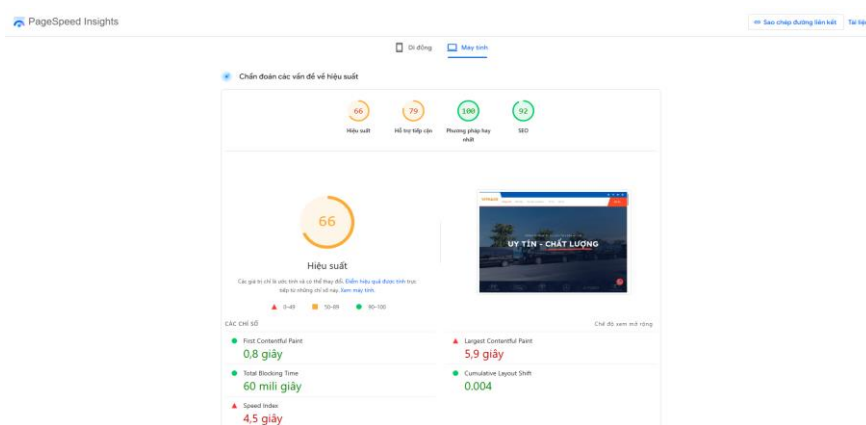
Regarding customer support, the website provides comprehensive contact channels such as hotline numbers, email addresses, and links to social media platforms, facilitating easy communication, consultation, and answers to customer questions during the process of learning about and using the service. In addition, news and articles

on the website provide further information related to car rental services and the company's operations.

#### 4.2.2. Evaluating websites based on theoretical criteria

Based on the theoretical framework presented in Chapter 2 regarding the role of e-commerce websites in the transportation sector, as well as the criteria for evaluating website performance, the website [chothuedanang.vn](http://chothuedanang.vn) of Vitracco Company is evaluated across both desktop and mobile platforms as follows.

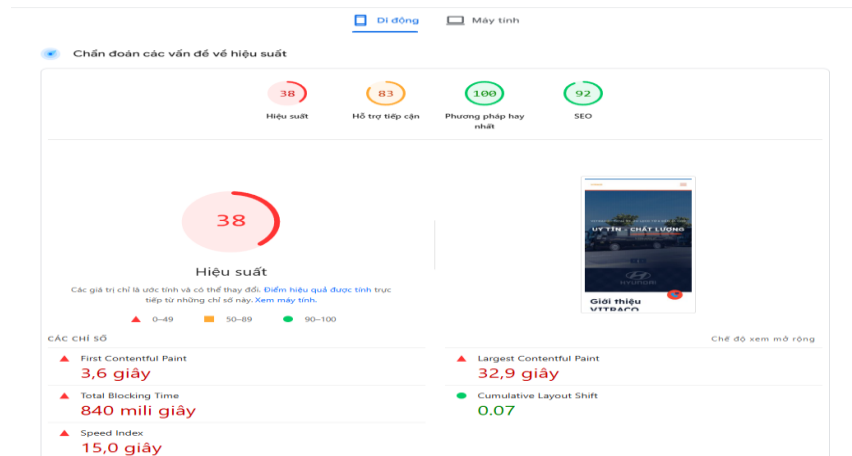
Regarding page load speed, the evaluation results from Google PageSpeed Insights show a clear difference between desktop and mobile performance. On the desktop version, the website achieves a high performance score (above 90 points), indicating that page load speed is fast and stable under standard desktop internet conditions. Key performance indicators such as First Contentful Paint (FCP) and Largest Contentful Paint (LCP) are maintained at acceptable levels, allowing users to access main content quickly without significant delays. This demonstrates that the website meets recommended performance standards for desktop users.



*Figure 4.9 Page load speed in desktop*

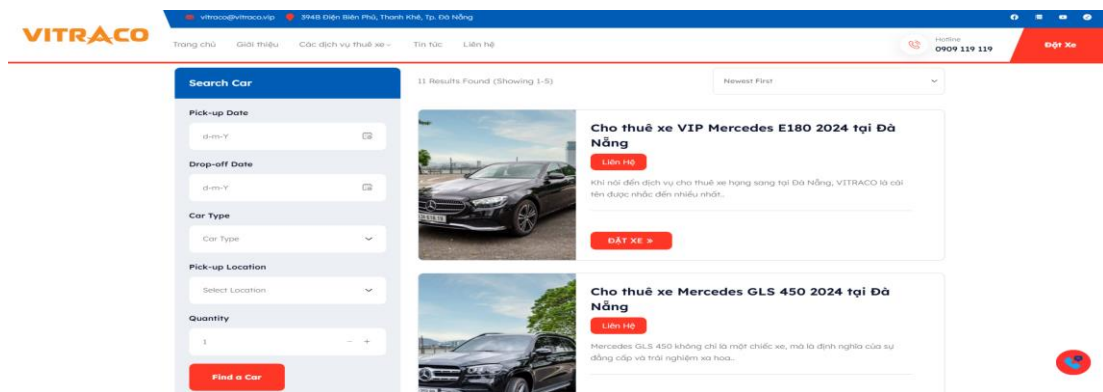
In contrast, the mobile version shows significantly lower performance scores, with the performance index falling below the recommended threshold. Indicators such as Largest Contentful Paint (LCP) and Speed Index are relatively high, reflecting slower content rendering on mobile devices. This issue is mainly caused by large image sizes, banner sliders, and scripts that have not been fully optimized for mobile networks. As mobile users often rely on less stable internet connections, the slower load speed may negatively affect user experience and increase bounce rates. Overall, while the website

performs well on desktop, mobile performance remains a limitation that requires technical optimization.



*Figure 4.10 Page load speed in mobile*

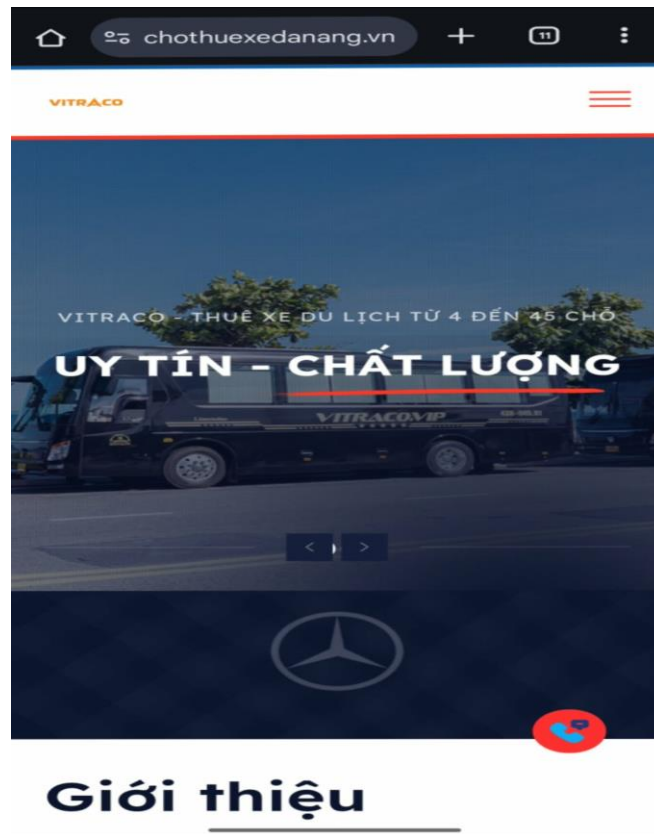
In terms of user experience and interface design, the website maintains a consistent layout across desktop and mobile devices. Service categories are logically structured, allowing users to browse car rental options conveniently. On desktop screens, information such as service descriptions, vehicle images, and pricing is clearly displayed, providing a comfortable browsing experience for users.



*Figure 4.11 Ride booking infacne in desktop*

On mobile devices, the responsive design ensures that content is displayed properly without layout distortion. However, due to smaller screen sizes, some elements such as banners, images, and booking information occupy a large portion of the screen, which may reduce usability. In addition, the user journey from searching for services to booking a vehicle has not been fully optimized according to the AIDA model on either platform. The absence of prominent call-to-action (CTA) buttons and step-by-step

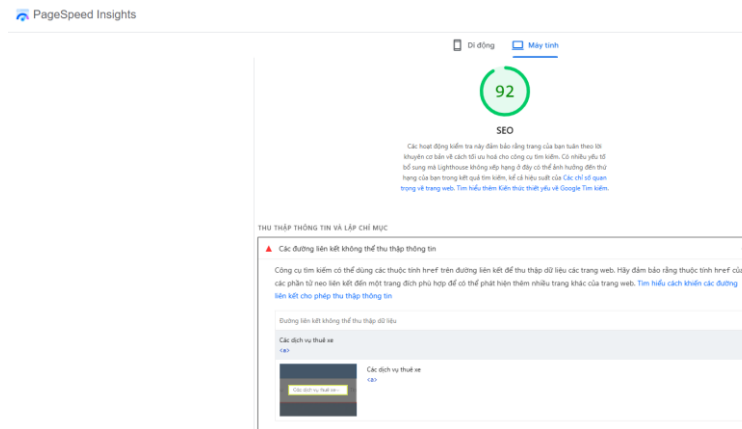
booking guidance limits the website's ability to smoothly convert visitors into customers, especially on mobile where users expect quick and intuitive interactions.



*Figure 4.12 Ride booking inface in desktop*

From an SEO perspective, the website demonstrates good optimization on both desktop and mobile platforms, as reflected by high SEO scores on PageSpeed Insights. The website has a clear content hierarchy, descriptive titles, and service-specific pages targeting keywords related to car rental services in Da Nang. These factors support search engine visibility and align with the B2C model in the transportation sector.

However, despite strong technical SEO foundations, content-related SEO remains limited. The lack of regularly updated blog posts or news articles reduces the website's ability to attract organic traffic over time and maintain long-term ranking stability. This limitation affects both desktop and mobile users equally.



*Figure 4.13 Website evaluation on PageSpeed Insight*

Regarding security, the website applies SSL encryption, ensuring secure data transmission for both desktop and mobile users. Basic protection is provided for contact forms and customer inquiries, creating a sense of trust when users submit personal information. Since online payment features have not yet been implemented, advanced security mechanisms such as transaction encryption or multi-factor authentication are not currently required. However, this also limits the website’s ability to support full e-commerce functionality across platforms.

In terms of conversion performance, the website functions effectively as an information-oriented platform on both desktop and mobile devices. The presentation of services, images, and vehicle options successfully attracts user attention. Nevertheless, the lack of a fully integrated online booking and payment system means that conversion still depends heavily on manual interactions via hotline or support channels. This limitation is more pronounced on mobile devices, where users typically expect fast, end-to-end booking processes. As a result, the conver

### **4.3. Analyzing the performance of online transportation services**

#### **4.3.1. Evaluation based on performance indicators**

Based on the performance indicators presented in Chapter 2, the effectiveness of Vitraco’s online transportation service can be assessed through online revenue, online marketing costs, booking success rate, customer satisfaction level, and operational efficiency.

Regarding online revenue, Vitraco’s website currently serves mainly as an information and customer inquiry channel rather than a fully automated revenue-

generating platform. Customers use the website to search for services, vehicle types, and pricing, while the actual booking and payment processes are largely completed through manual contact such as hotline calls or direct consultation. As a result, revenue generated directly from online transactions remains limited, and the website has not yet fully realized its role in converting online traffic into measurable online sales.

In terms of online marketing costs, Vitracco invests primarily in basic digital marketing activities such as website maintenance, search engine optimization (SEO), and online customer support. Compared to large-scale online transportation platforms, the company's marketing expenditure is relatively controlled and focused on the local market in Da Nang. However, due to the absence of detailed tracking systems linking marketing costs to booking outcomes, the effectiveness and return on investment (ROI) of online marketing activities are difficult to evaluate accurately.

The successful booking rate of Vitracco's online transportation service is affected by the semi-online nature of the booking process. Although the website allows customers to search for information and submit requests, the lack of automated booking confirmation and online payment interrupts the conversion process. This reduces the booking success rate, as customers may abandon the process before completing the transaction.

Regarding customer satisfaction level, feedback collected through hotline communication and direct customer interactions indicates a generally positive evaluation of service quality, vehicle condition, and staff professionalism. However, from a digital service perspective, customer satisfaction is not fully optimized due to limited website interactivity and the absence of real-time booking features.

In terms of operational efficiency, Vitracco's online transportation service operates at a stable level but relies heavily on manual processing. Response time to customer requests is acceptable under normal conditions, but efficiency may decline during peak tourism seasons. The lack of integrated systems such as CRM or TMS limits the company's ability to manage bookings, customer data, and vehicle dispatch efficiently.

#### 4.3.2. Evaluation based on the AIDA model

The AIDA model (Attention – Interest – Desire – Action) is applied to analyze customer behavior and evaluate the effectiveness of Vitracco’s website across the entire customer journey. At the Attention stage, the website benefits from basic search engine optimization and clear service positioning related to car rental and transportation services in Da Nang. This allows Vitracco’s website to reach users who are actively seeking transportation solutions through search engines. At the Interest stage, the website provides relatively comprehensive and structured information, including service descriptions, pricing details, and vehicle images, which helps users clearly understand the service offerings. The interface is designed in a simple and intuitive manner, making it accessible for general customers and tourists, thereby supporting the website’s role as an effective information-providing platform in the early stages of the customer journey.

However, when moving to the Desire and Action stages, several limitations reduce the overall effectiveness of the website. At the Desire stage, the absence of customer reviews, testimonials, promotional content, and trust-enhancing elements such as service guarantees or quality certifications weakens customers’ motivation to choose Vitracco over competing transportation platforms. In addition, the lack of personalized offers, booking incentives, or loyalty programs further limits the ability to stimulate purchase intention. At the Action stage, the booking process is not fully automated, as customers are required to contact the company manually via hotline or messaging channels to complete their reservations. The lack of online payment and automatic booking confirmation interrupts the continuity of the customer journey, increases the effort required from users, and negatively affects conversion rates. As a result, although Vitracco’s website performs relatively well in attracting and informing customers, its effectiveness as a revenue-generating online transportation service channel remains constrained.

#### 4.3.3. Evaluation based on website analytics tools

Website analytics tools play an important role in providing both technical and behavioral insights into the performance of Vitracco’s online transportation service. Based on results from PageSpeed Insights, the website shows relatively good

performance on desktop devices, with acceptable page load speed and stable access to core content such as the homepage and service pages. This indicates that the website can meet the basic expectations of users accessing it via desktop or laptop devices. However, mobile performance remains more limited due to the presence of large images and banners that have not been fully optimized. These technical limitations may lead to longer loading times on mobile devices, especially under unstable network conditions, thereby negatively affecting user experience and increasing the likelihood of user drop-off.

In addition, tools such as Google Analytics and Google Search Console, when applied, allow Vitraco to monitor website traffic, user behavior, keyword performance, and overall search visibility. These tools support the evaluation of how users access and interact with the website, as well as the effectiveness of SEO efforts related to car rental services in Da Nang. Nevertheless, the current level of data utilization is still relatively basic, focusing mainly on traffic volume and general visibility. Advanced analytical practices such as conversion tracking, detailed funnel analysis, or heatmap tools (e.g., Hotjar) have not yet been fully implemented. This limitation reduces Vitraco's ability to conduct in-depth, data-driven evaluations of user behavior and systematically optimize website performance. Strengthening the application of website analytics tools would enable more accurate performance measurement, support strategic decision-making, and contribute to the continuous improvement of Vitraco's online transportation service.

#### **4.4. Analyze the company's online marketing activities.**

##### 4.4.1. Current online marketing strategies

In recent years, along with the trend of digital transformation, VITRACO Company has gradually implemented online marketing activities to promote its services and reach customers more effectively. The company's current online marketing strategy focuses primarily on channels such as its website, search engine optimization (SEO), Google Ads, social media, and email marketing. However, these activities are still at a basic level and have not been invested in comprehensively.

Regarding SEO, the VITRACO website was built with the goal of providing information about transportation and car rental services, making it easy for customers to find on search engines. Some content on the website uses keywords related to transportation services, car rental, and passenger transport. However, SEO optimization has not been done systematically, content is not updated frequently, and there are not many in-depth articles or instructional content, leading to limited website visibility in search results. Regarding Google advertising, the company has implemented Google Ads campaigns in several phases, primarily aimed at increasing website traffic and attracting customers who need to book a vehicle quickly. The main advertising method is search advertising with keywords related to transportation and car rental services. However, the advertising budget is not stable and its effectiveness is not regularly monitored and evaluated, so the results are not truly significant and are short-term.

For social media channels, VITRACO currently uses several popular platforms such as Facebook to post information about services, vehicle images, and business activities. Social media helps the business reach customers faster and create a certain level of interaction. However, the posted content is not diverse, the update frequency is inconsistent, and it mainly focuses on introducing services, lacking engaging content such as sharing experiences, customer feedback, or promotional programs.



*Figure 4.14 Fanpage Vitraco*

Regarding email marketing, this activity is not currently implemented regularly. Survey results show that the majority of customers have never received emails from VITRACO, indicating that the company has not effectively utilized email to nurture customer relationships and maintain long-term connections. The lack of regular email

campaigns means that the ability to re-engage existing customers and encourage service use has not been as effective as desired.

Overall, VITRACO's current online marketing strategy has begun to take shape and utilize various channels. However, the activities are still fragmented, lacking strong linkages between channels and failing to fully exploit the potential of digital marketing. This highlights the need for the company to develop more synchronized and effective online marketing solutions in the future.

#### 4.4.1. SEO and search advertising activities

Currently, VITRACO's SEO and search advertising activities play a crucial role in attracting customers to its website and learning about the company's transportation services. Through its website, VITRACO has initially implemented optimization for several keywords related to car rental and tourist transportation, helping customers access company information when searching on Google.

Regarding keyword optimization, VITRACO's website uses basic keywords associated with its services such as tourist car rental, car rental in Da Nang, passenger transportation, and brand keywords. Some service pages have titles, descriptions, and content that match user search needs. As a result, the website has the potential to appear in Google's organic search results. However, SEO optimization has not yet been implemented comprehensively and thoroughly. The website's content is limited in both quantity and quality, lacking many articles sharing useful information or addressing customer needs, resulting in low and unstable organic traffic.

Regarding organic traffic, the majority of website visits come from direct searches or general keywords. The website hasn't effectively utilized long-tail keywords related to specific customer needs, such as booking a ride by route, vehicle type, or time. This reduces the ability to reach customers with genuine needs and impacts the conversion rate from website visits to service usage.

Regarding paid search advertising (Google Ads), VITRACO has implemented search advertising at certain times to quickly increase website traffic and reach customers with ride-hailing needs. The advertising primarily focuses on keywords related to car rental and tourism transportation services. This method helps websites increase their visibility in a short time and supports businesses in competing with rivals

on search engine results pages. However, due to limited advertising budgets and infrequent monitoring and evaluation of campaign effectiveness, the advertising results are not truly optimized, and the cost per click remains relatively high compared to the actual number of converted customers.

Overall, VITRACO's SEO and search advertising activities have contributed to increasing brand awareness and attracting customers online. However, these activities still have many limitations and have not fully realized their potential. Therefore, the business needs a more systematic SEO optimization strategy, combined with the management and measurement of paid advertising effectiveness to improve online marketing effectiveness in the future.

#### 4.4.2. Social media and digital content

Social media is one of the online marketing channels that VITRACO is using to promote its corporate image and reach customers. Currently, the company primarily uses Facebook to post information about its services, vehicle images, and related activities. Social media helps VITRACO maintain an online presence and makes it easier for customers to access information compared to traditional channels.

Regarding engagement, posts on VITRACO's social media pages have average reach and interaction. Some posts introducing services or vehicle images receive a certain number of likes and comments, however, the level of interaction is not high and inconsistent across posts. Most content only provides one-way information, failing to generate much exchange or feedback from customers. This indicates a limited level of engagement between the business and its customers on social media.

In terms of digital content quality, VITRACO's content posted on social media platforms is currently quite simple, mainly focusing on service introductions, activity announcements, or vehicle images. The content lacks diversity in format and doesn't fully utilize engaging content types such as short videos, experience-sharing articles, customer stories, or promotional programs. Therefore, its ability to attract and retain followers is low, failing to create a distinct advantage over other businesses in the same industry.

Regarding brand recognition, maintaining activity on social media has helped VITRACO increase brand awareness within a certain scope. However, the brand image

on these platforms isn't truly outstanding due to inconsistent presentation style and content, lacking a clear direction for long-term brand image building. This results in low brand recall among customers and difficulty in making a strong impression in the digital environment.

Overall, VITRACO's social media and digital content activities have been initially implemented and have yielded some positive results in providing information and reaching customers. However, the level of interaction, content quality, and brand building capabilities on social media still have many limitations. This highlights the need for the company to focus more on investing in digital content and social media communication strategies in the future to improve the effectiveness of online marketing.

#### 4.4.3. Online customer service

At VITRACO, online customer service is currently primarily conducted through the website, phone, and social media, with the website serving as the initial channel for receiving booking requests and customer feedback.

Regarding marketing and post-booking customer care, after customers submit booking requests via the website, staff usually proactively contact them to confirm information and provide further service advice. This approach helps the business build a certain level of trust with customers. However, post-service care activities such as sending thank-you notifications, asking for feedback, or introducing future services are not carried out regularly. This indicates that the company's online customer care is still largely manual and has not been established as a clear process.

Regarding receiving and responding to customer feedback, VITRACO receives feedback through channels such as phone, fanpage, and partly through the website. Staff typically respond when customers proactively contact them; however, there is no systematic system for recording and aggregating feedback. Response times are slow in some cases, especially during peak hours, affecting customer satisfaction. Furthermore, the website lacks online support tools such as chatbots or quick chat boxes to provide timely customer assistance.

Regarding customer retention tools after booking, VITRACO currently does not effectively utilize digital marketing tools such as customer care emails, loyalty programs for returning customers, or a points system. Survey results show that many customers

have never received emails or promotional information after using the service. This reduces the likelihood of encouraging repeat business and prevents the company from fully leveraging its existing customer base.

VITRACO's online customer service has built trust with customers during the website booking process. However, post-sales marketing activities, customer feedback reception and response, and tools for retaining and maintaining users are still lacking in focus and synchronization. This is a limitation that businesses need to address in the future to improve customer experience and contribute to better business performance on the website platform.

#### **4.5. Analyzing Vitraco's business environment in online transportation operations.**

##### 4.5.1. Macro environment (PESTEL)

###### *4.5.1.1. Political*

In recent years, the Vietnamese government has issued numerous policies and legal regulations to promote digital transformation and e-commerce development, creating a relatively comprehensive legal framework for businesses providing services on website platforms. Specifically, the 2005 Commercial Law and the 2005 Electronic Transactions Law (replaced by the 2023 Electronic Transactions Law) have recognized the legal validity of electronic transactions, electronic contracts, and digital signatures, providing a legal basis for businesses to provide online services.

In addition, Decree No. 52/2013/ND-CP on e-commerce and Decree No. 85/2021/ND-CP amending and supplementing Decree 52 clearly stipulate the responsibilities of businesses when building and operating e-commerce websites, including the obligation to register, disclose information, protect consumer rights, and ensure transaction security. Furthermore, the Law on Consumer Rights Protection of 2010 (amended in 2023) requires businesses to be transparent about service information, prices, and transaction conditions on their websites.

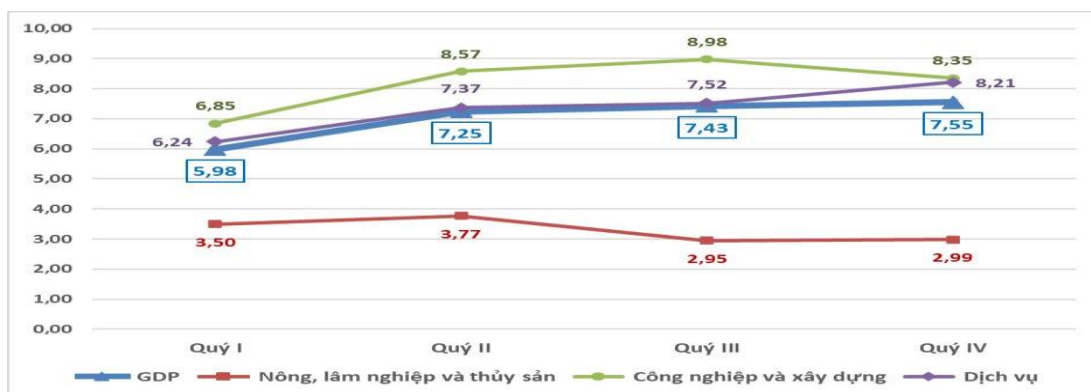
For the transportation sector, VITRACO's operations are also governed by the Road Traffic Law of 2008, the Tourism Law of 2017, and related guiding documents on the conditions for conducting transportation and travel services. Overall, the current legal system both facilitates the deployment of online transportation services and

imposes strict compliance requirements to ensure transparency, safety, and customer rights.

#### 4.5.1.2. Economy

In 2024, Vietnam’s economy continued its strong recovery and expansion momentum following the post-pandemic period, recording stable and comprehensive growth. According to the General Statistics Office of Vietnam, the country’s gross domestic product (GDP) increased by 7.09% compared to 2023. Economic growth accelerated steadily across quarters, with GDP rising by 5.98% in Q1, 7.25% in Q2, 7.43% in Q3, and 7.55% in Q4 year-on-year.

In terms of value-added structure, the service sector played a leading role, growing by 8.21%, reflecting a strong recovery in tourism, transportation, and related service activities. Industry and construction increased by 8.35%, while agriculture, forestry, and fisheries recorded a more modest growth rate of 2.99%. These figures indicate a favorable macroeconomic environment for service-oriented enterprises, particularly those operating in transportation and tourism.



*Figure 4.15 GDP and VA growth rates by sector by quarter in 2024 (%)*

Entering 2025, Vietnam’s economy is set to maintain a high-growth trajectory in line with national socio-economic development plans. GDP growth in 2025 is targeted at 8.02%, marking one of the highest growth rates in the 2011–2025 period, second only to the exceptional recovery year of 2022. Quarterly growth is expected to continue its upward trend, with GDP growth rates of 7.05% in Q1, 8.16% in Q2, 8.25% in Q3, and 8.46% in Q4. In the value-added structure, the service sector is expected to grow by

8.62%, industry and construction by 8.95%, and agriculture, forestry, and fisheries by 3.78%, highlighting the continued expansion of service-based economic activities.

The positive economic environment during 2024–2025 has a direct and significant impact on VITRACO’s transportation and tourism operations. Sustained GDP growth and the strong expansion of the service sector indicate increasing demand for travel, tourism, and passenger transportation from both individual and corporate customers. This creates favorable conditions for VITRACO to expand service capacity, enhance service quality, and diversify transportation offerings.

However, rapid economic growth also intensifies market competition, as new transportation and tourism service providers continue to enter the industry. This competitive pressure requires VITRACO to continuously improve vehicle quality, accelerate digital transformation, optimize operating costs, and enhance customer experience in order to maintain competitiveness and achieve long-term sustainable development.

#### *4.5.1.3. Society*

The social environment in Vietnam during the 2024-2025 period is undergoing many positive changes, directly impacting Vitraco's transportation and tourism services. Urbanization and the development of tourist centers, especially in Da Nang city, are increasing the demand for travel, sightseeing, and professional transportation services, creating favorable conditions for the company to expand its market and increase service output.

Improved income and living standards are changing consumer behavior in the transportation sector. Customers are increasingly concerned about service quality, safety, comfort of vehicles, and the attitude of staff. The travel experience is becoming a crucial factor influencing the choice of service provider, requiring Vitraco to continuously improve the quality of its vehicles, service procedures, and human resources.

The growing trend of group tourism, family tourism, and experiential tourism has led to more diverse and flexible transportation needs. Customers tend to choose services that allow for personalized itineraries, advance bookings, and efficient travel throughout

their journey. This places a demand on Vitracco to diversify its service offerings, from regular passenger transportation to airport transfers and all-inclusive tour packages.

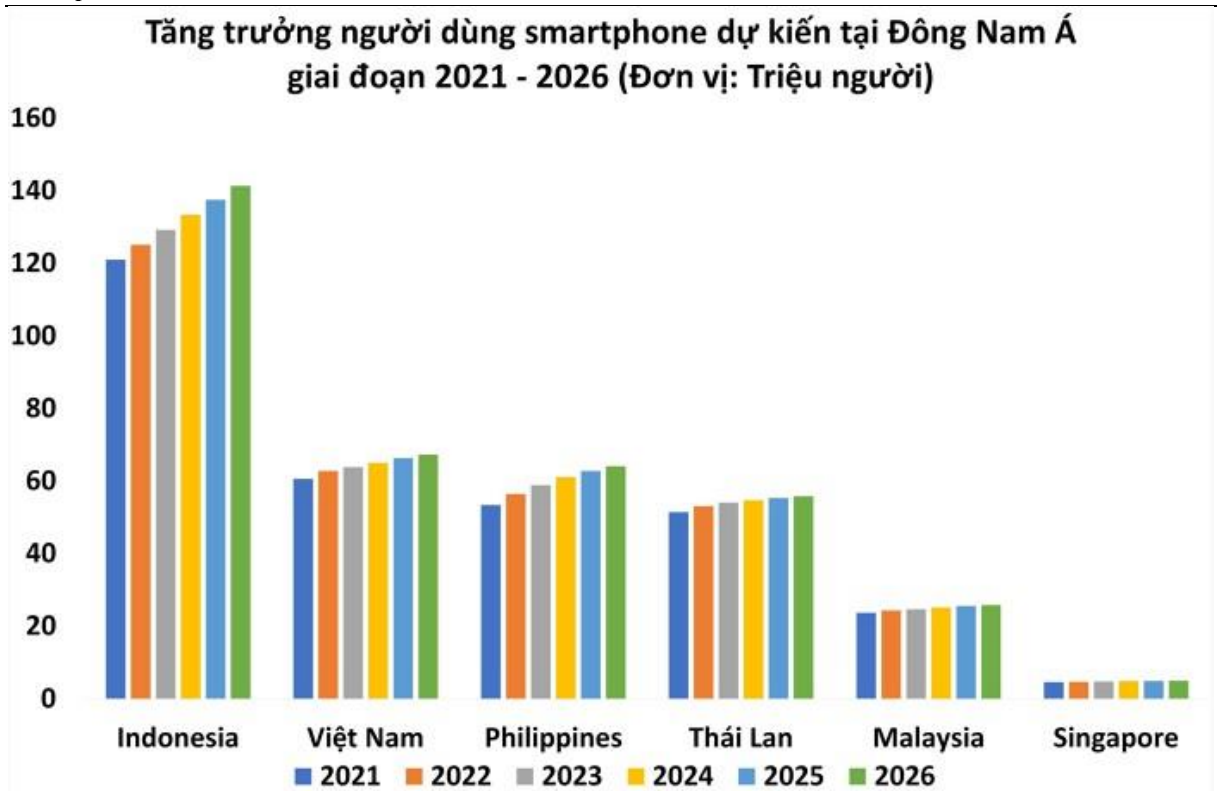
Social awareness of corporate responsibility in the transportation sector is increasingly high. Factors such as traffic safety, service culture, brand image, and social responsibility are becoming important criteria in evaluating service quality. Building a professional, friendly, and socially responsible corporate image is essential for Vitracco to maintain its reputation and enhance its competitiveness in the market.

#### *4.5.1.4. Technology*

In the tourism industry and for companies providing travel services, technological advancements are having a significant impact. In particular, progress in automotive and smartphone technology has contributed to transforming the industry.

In 2023, premium materials such as nappa leather, natural wood, and metal integrated into car interior design became increasingly popular. Amenities like high-end leather seats, surround sound systems, and seat cooling or heating functions are becoming mainstream trends. Cars are no longer just a means of transportation; with increasingly advanced interior features, customers are now seeking more luxurious travel experiences. They are willing to pay more for vehicles with full amenities and modern technology to meet their entertainment needs. This creates significant pressure on travel companies, requiring them to constantly update their automotive technology if they don't want to lose customers.

Furthermore, the development of smartphones and changes in consumer phone usage habits, especially in Vietnam, have also had a significant impact on tourism service companies. According to Insider Intelligence's report on the Southeast Asian smartphone market from 2021 to 2026, 2022 saw approximately 62.8 million smartphone users in Vietnam, a 3.6% increase from the previous year, accounting for 96% of the total internet users nationwide.



*Figure 4.18 Projected smartphone user growth in Southeast Asia from 2021 to 2026*

#### *4.5.1.5. Environment*

Environmental factors are becoming increasingly influential in the PESTEL framework, particularly for transportation and tourism enterprises such as Vitracco, whose operations are directly associated with vehicle usage and mobility activities. Issues related to climate change, air pollution, greenhouse gas emissions, and the requirement for sustainable development are shaping both operational practices and long-term strategic orientation in the transportation sector.

In Vietnam, the transportation sector is identified as one of the major contributors to air pollution and carbon emissions due to its high dependence on fossil fuels. As environmental regulations and public concern regarding emissions continue to intensify, transportation enterprises face growing pressure to reduce their environmental footprint. For Vitracco, this pressure is reflected in the need to invest in newer vehicles with better fuel efficiency, comply with emission standards, and gradually upgrade its fleet to reduce fuel consumption and operating emissions. These requirements increase initial investment and operating costs, but they also encourage the company to improve service quality and operational efficiency in the long term.

At the same time, national policies promoting green growth and sustainable tourism development have a direct impact on Vitraco’s business environment. In key tourist destinations such as Da Nang, local authorities, travel agencies, and corporate clients increasingly prioritize cooperation with transportation providers that demonstrate environmental responsibility. This creates both compliance pressure and strategic opportunities for Vitraco. By adopting environmentally friendly practices and promoting a “green transportation” image, the company can enhance its brand reputation, strengthen partnerships, and improve its competitive position in the tourism transportation market.

Environmental conditions and climate-related risks also play an important role in shaping transportation operations. Extreme weather events such as heavy rain, storms, or prolonged heatwaves can disrupt travel schedules, affect vehicle safety, reduce service reliability, and increase maintenance and operational costs. These factors require Vitraco to strengthen environmental risk management, implement regular vehicle inspections, and develop flexible operational plans to ensure service continuity and passenger safety. Furthermore, as customer awareness of environmental protection continues to rise—particularly among younger travelers and international tourists—the demand for environmentally responsible transportation services is becoming more evident. This trend encourages Vitraco to integrate sustainability considerations into fleet management, fuel optimization, and corporate branding, thereby aligning business performance with long-term environmental and social expectations.



*Figure 4.19 Green transport*

#### 4.5.2. Microenvironment (Porter's Five Forces Model of Competition)

##### 4.5.2.1. Potential competitors

Amidst the strong digital transformation of the tourism and transportation industry, potential competitors are creating increasing pressure on Vitraco's business operations, particularly through new technology platforms and business models. Prominent among these are Online Travel Agencies (OTAs) such as Agoda, Booking.com, Expedia, and Traveloka. These platforms possess superior advantages in technology, customer data, and global partner networks, enabling them to offer flexible and fast booking services, airline tickets, tours, and supplementary services at competitive prices. Integrating multiple services on a single platform allows OTAs to meet the "all-in-one" consumer trend, thereby reducing the traditional intermediary role of tourism and transportation businesses like Vitraco, especially in customer outreach and service distribution.

Furthermore, OTAs are increasingly expanding their ecosystems into the ground transportation sector through airport shuttle services, self-drive car rentals, or connections with local transportation partners. This trend blurs the lines between traditional tourism businesses and technology platforms, increasing the risk of direct competition in the future. For Vitraco, if it does not improve its digitalization and service integration capabilities on its website, the business may lose its competitive advantage against OTA platforms, which have a wider customer base and faster transaction processing speeds.

Besides OTAs, ride-hailing and transportation service apps like Grab are also considered potential competitors from an indirect perspective. Although these applications primarily focus on short-term and urban travel needs, their expansion into airport transfers, hourly or daily car rentals, and services for tourists has created a certain alternative to traditional tourist transportation services. The advantages of technology, convenient booking, transparent pricing, and the mobile app usage habits of young customers are increasing competitive pressure on these platforms.

Overall, Vitraco's potential competitors come not only from newly established transportation and tourism businesses but also from multi-service technology platforms with rapid scalability and low marginal costs. This necessitates that Vitraco accelerate digital transformation, enhance the online booking experience, and build a distinct

competitive advantage based on service quality, professionalism, and understanding of the local market.

#### 4.5.2.2. Current competitors

##### - Tuan Nguyen Travel

Tuan Nguyen Travel is considered one of the most prestigious companies in Central Vietnam. Established on March 23, 2009, up to now, Tuan Nguyen Travel has affirmed its solid position in the domestic tourism market.

With the motto "All customers can travel", Tuan Nguyen Travel always finds ways to minimize costs while still ensuring quality. And the number of customers of Tuan Nguyen Travel is up to 110,000 both domestically and internationally.

Channel	Name	Establishment	Strengths	Weaknesses
Website	<a href="https://www.tuannguyentravel.com">https://www.tuannguyentravel.com</a>	20/12/1995	Easy to see and easy to operate interface Full information provided	Simple interface, not really attractive Too much information shared, easily confusing for viewers.
Facebook	Tuấn Nguyễn Travel	25/05/2012	High number of followers and likes: 25M (followers) and 26M (likes) Diverse post types: images, videos, reels, website links High natural interactions on each post Frequently have tour sale posts and have high	High interaction (number of comments).

			interactions (likes + shares). Posts rarely use advertising	
Tiktok	@Tuannguye ntravel.com	13/09/2019	Clear video image quality	Low engagement and views
	@Tuannguye ntravel	11/4/2024	Many videos posted, diverse content	Low engagement Videos not classified

*Table 4.8 Competitor analysis table Tuan Nguyen Travel*

- Vietravel – Professional travel organizer

Vietravel was established on December 20, 1995 under the original name of the Transport Marketing and Tourism Company, under the Ministry of Transport. On January 1, 2014, the company officially transformed into Vietnam Transport Marketing and Tourism Joint Stock Company, also known as Vietravel. Vietravel's headquarters is located in Ho Chi Minh City, while the company's branches are widely distributed in provinces and cities across the country such as Hanoi, Hai Phong, Quy Nhon, Quang Ninh, Nha Trang, Da Nang, Quang Nam, Quang Ngai, Lao Cai, Phu Quoc, along with representative offices in countries such as Australia, Cambodia, the US, France, Thailand, and Singapore. In addition to its main tourism activities, Vietravel has expanded into the OTA market through investing in the TripU startup project and establishing the travel airline Vietravel Airlines. Vietravel pursues a business philosophy that focuses on putting the interests of customers first in all of the company's activities. They believe that customers are the most important factor in building and strengthening the Vietravel brand. Therefore, maintaining customer satisfaction is the guiding principle in all of the company's strategies and decisions, helping Vietravel develop and expand strongly in the market.

<b>Channel</b>	<b>Name</b>	<b>Establishment</b>	<b>Strengths</b>	<b>Weaknesses</b>
Website	<a href="https://www.vietravel.com/">https://www.vietravel.com/</a>	20/12/1995	Simple interface, easy to see, easy to operate	The interface is not really eye-catching There is too much

*Solutions to Improve the Efficiency of Transport Service Operations on the Website Platform at Vitracco Transport and Tour*

			Full information on the website from domestic and foreign There is a promotional information section, suitable for customers.	information and it is not divided into clear categories, confusing the viewer
Facebook	Vietravel Đà Nẵng	04/06/2013	High number of likes and followers (19K - likes, 21K - followers) Diverse post content High interaction on each post Frequently have sale posts, holiday discounts	Post formats are not diverse yet, no video posts yet
Tiktok	@vietravel official	04/05/2023	Large number of videos Clear video quality High average view count High average interaction count There is a link between tiktok and the company website	Interactions on each video have a big difference Videos posted without content classification

*Table 4.9 Vietravel competitor analysis table*

#### *4.5.2.3. Replacement product*

The main alternatives are not direct tourist transportation services from companies in the same industry, but rather other forms of travel and trip organization that can meet the same customer needs with varying costs and levels of convenience.

Firstly, public transportation such as traditional taxis, buses, trains, and budget airlines are considered popular alternatives to Vitraco's tourist transportation services, especially for individual travelers and short trips. While these options are low-cost and easily accessible, they are limited in terms of flexibility, privacy, and the ability to personalize itineraries – areas where Vitraco is gaining a competitive advantage.

In addition, self-drive car rentals, private car services, and ride-hailing platforms like Grab, Be, or similar ride-hailing apps are also increasingly popular alternatives. This product group effectively meets the needs for flexible travel, quick booking, and transparent pricing, making it particularly suitable for young customers, small groups, or independent travelers. The strong development of ride-hailing apps has reduced customer dependence on traditional travel transportation companies.

In addition, OTAs (Online Travel Agencies) offering all-inclusive tours or flexible individual booking services are also considered indirect alternatives to Vitraco. Instead of hiring private vehicles from transportation companies, customers can choose tour packages that include transportation, accommodation, and other supplementary services, thereby reducing the need for independent transportation services.

Overall, the diversity and accessibility of alternative products give customers more choices, increasing competitive pressure on Vitraco. Therefore, the threat level from substitute products in the Porter model is assessed as medium to high, requiring Vitraco to continuously improve service quality, increase flexibility, personalize journeys, and enhance customer experience to maintain a competitive advantage.

#### *4.5.2.4. Customers*

To date, Vitraco has been operating effectively in the tourism transportation service sector in the Vietnamese market in general and the Da Nang area in particular. Thanks to its brand reputation, vehicle quality, and long-standing experience, Vitraco has built a stable and large customer base, including two main groups: institutional

customers (businesses, agencies, travel agencies) and individual customers (tourists, families, groups of friends).

However, both of these customer groups are showing changing travel behaviors, directly impacting their needs and usage of tourism transportation services. Specifically, according to the "Future of Tourism" survey conducted by Booking.com, Vietnamese tourists are increasingly limiting travel during peak seasons and tend to choose more flexible travel times to avoid crowds. This trend has led to a demand for private transportation services, on-demand vehicle bookings, and greater control over time and schedules, rather than reliance on fixed transportation methods.

Furthermore, tourists are increasingly interested in exploring local natural landscapes and cultures, seeking authentic and intimate experiences, rather than focusing solely on luxury services. This trend requires transportation companies like Vitraco to not only provide simple transportation services but also enhance customer experience through quality service, professional drivers, and the ability to meet diverse travel needs.

a. Individual customer group:

Vitraco's individual customers are primarily domestic and international tourists, families, groups of friends, or individuals needing to rent vehicles for sightseeing, vacations, or short business trips. This customer group is characterized by a need for flexible travel, non-fixed itineraries, and a preference for convenience, control over time, and personal experiences throughout their journey.

In the context of changing travel trends, individual customers are increasingly limiting travel during peak seasons and tend to choose shorter, more flexible trips or travel in small groups. This increases the demand for individual transportation services such as daily, per-trip, or personalized car rentals. Furthermore, this customer group is also more concerned about factors such as vehicle quality, safety, driver service attitude, and price transparency.

Furthermore, individual customers are increasingly accustomed to searching, comparing, and booking transportation services through online platforms. Therefore, the user experience on the website, the ability to provide complete information and images

of vehicles, a simple booking process, and quick responses play a crucial role in attracting and retaining this customer group for Vitraco.

b. Institutional client group:

Vitraco's corporate clients include businesses, government agencies, schools, travel agencies, and organizations requiring vehicle rentals for conferences, events, group tours, or personnel transportation. This client group has a high frequency of service usage, a large volume of contracts, and provides a relatively stable revenue stream for the company.

A key characteristic of corporate clients is their high demand for professionalism, reliability, and the ability to provide a comprehensive range of vehicles and personnel. This client group typically prioritizes transportation companies with established brands, long-standing experience, clear work processes, and the ability to provide complete invoices and contracts. Their decision to choose a transportation service provider is usually based on criteria such as reputation, service quality, reasonable pricing, and the ability to flexibly adapt to the specific requirements of each program or event.

Furthermore, corporate clients are increasingly concerned with optimizing costs and effectively managing their transportation operations. Therefore, the demand for online ride-hailing solutions, order management, schedule tracking, and specialized customer support is increasing. This necessitates Vitraco to improve its website system and service processes to better meet the expectations of its corporate clients, thereby enhancing the likelihood of long-term partnerships.

*4.5.2.5. Supplier*

Suppliers play a crucial role for businesses, providing them with input services and resources to make company operations more efficient.

Some of Vitraco Tour's current suppliers include:

- Truong Hai Group Joint Stock Company (THACO Group):

THACO Group is a company that has provided transportation vehicles for Vitraco's tourism services. As a leading automotive technology company in Vietnam, THACO's products are always modern and of high quality, which helps Vitraco improve the quality of its tourism transportation services and significantly save costs

- Some resorts and 4-star hotels:

Currently, Vitraco is served by many accommodation providers meeting 3-4 star standards, as well as high-end resorts and hotels. Some 4-star resorts and hotels that recently signed service agreements with Vitraco include: Abla Tan Thanh, Nhat Linh ATP Galaxy Hotel, Sandy Beach Non Nuoc, and Mikazuki Japanese Resorts & Spa Danang.

- Restaurants in tourist areas:

Local restaurants in tourist areas provide catering services for Vitraco's tours. Some restaurants offer local specialties, such as: Citron Restaurant – Da Nang, Huong Viet Delight – Quang Nam, Cung Dinh Hue Restaurant – Hue, Thang Long Restaurant – Ninh Binh, and several others in Quang Tri, Ha Giang, Quang Binh, Ca Mau, etc.

Suppliers play a significant role and exert a moderate level of influence. For transportation, Vitraco collaborates with THACO Group – a leading automotive supplier in Vietnam – providing modern, high-quality vehicles, helping the company improve transportation services and optimize operating costs. However, due to the numerous alternative suppliers in the automotive market, this supplier's bargaining power is not very strong. Furthermore, the diverse range of accommodation and food service suppliers, such as 3-4 star hotels, resorts, and local restaurants, allows Vitraco flexibility in selecting and changing partners as needed. Overall, Vitraco's dependence on individual suppliers is not high; therefore, the power of suppliers in Porter's 5 competitive forces model is assessed as moderate.

#### **4.6. SWOT analysis of Vitraco's online business operations**

##### *4.6.1. Weaknesses*

Although VITRACO has launched a website to support its online business operations, its interface and user experience still have many limitations, lacking user-friendliness and optimization, especially on mobile devices. The website content is not diverse enough and lacks a systematic approach to SEO, resulting in low search rankings and limited organic traffic. Furthermore, online marketing campaigns have not been implemented consistently and with a long-term perspective. The company currently lacks a team of highly skilled digital marketing professionals, hindering the

development of effective online communication strategies and the successful utilization of online channels.

#### 4.6.2. Strengths

VITRACO is a reputable and established company in the transportation and tourism sector, with many years of experience in the market. The company's brand has built trust with customers, especially corporate and long-term clients. Furthermore, VITRACO owns a relatively large fleet of vehicles, diverse in type and capacity, allowing the company to proactively meet various rental needs. Experience in management and operational coordination helps VITRACO ensure stable service quality and minimize risks during customer service. The company's website is currently operating stably, serving as a channel for providing information and supporting customers in accessing services online. In addition, the existing base of loyal customers provides a favorable foundation for the company to continue developing its business on digital platforms.

#### 4.6.3. Opportunities

The trend of booking services online is becoming increasingly popular in modern society, especially for transportation and tourism services. Consumers are becoming more familiar with searching for information and booking vehicles through websites, creating great opportunities for VITRACO to expand its online business. Government policies supporting digital transformation, along with the strong development of electronic payment methods, make it easier for businesses to implement and improve operational efficiency on website platforms. Furthermore, the recent growth of the tourism industry in the Central region has increased the demand for travel and vehicle rentals, opening up many opportunities for VITRACO to reach and serve customers through online channels.

#### 4.6.4. Threats

Alongside opportunities, VITRACO also faces numerous challenges in its online business operations. Competition from larger rivals and technology platforms in the transportation sector is increasingly fierce, putting pressure on pricing and service quality. The demand for travel is distinctly seasonal and easily influenced by socio-economic factors, leading to fluctuations in revenue and customer numbers.

Furthermore, customers are increasingly demanding higher user experience, service processing speed, and personal data security. This requires VITRACO to continuously invest in upgrading its technology systems and improving online service quality to meet customer expectations.

#### 4.6.5. Market synthesis and evaluation

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>- VITRACO is a reputable brand with many years of experience in the transportation and tourism sector.</li> <li>- It owns a large and diverse fleet of vehicles to meet various customer needs.</li> <li>- It has stable operational and service coordination experience.</li> <li>- Its website is relatively stable and provides reliable service information.</li> <li>- It has a loyal customer base, especially corporate clients.</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>- The website interface is not truly user-friendly and optimized for a better user experience.</li> <li>- SEO and content marketing activities are limited, resulting in low organic traffic.</li> <li>- There is no systematic and long-term digital marketing strategy.</li> <li>- There is a shortage of personnel with expertise in online marketing.</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>- The trend of booking and using online services is becoming increasingly popular.</li> <li>- The government's policies promoting digital transformation are creating favorable conditions for businesses.</li> <li>- Electronic payments are developing strongly, facilitating online transactions.</li> <li>- The tourism industry in Central Vietnam is growing, leading to increasing demand for transportation and car rentals.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>- Intense competition from major rivals and transportation technology platforms.</li> <li>- Seasonal and volatile travel demand.</li> <li>- Increasingly demanding customers for online service experiences.</li> <li>- Increasingly stringent requirements for information security and customer data safety.</li> </ul>

*Table 4.10 SWOT analysis*

The SWOT analysis reveals that VITRACO's online business possesses several key strengths, including brand reputation, operational experience, and a stable fleet of vehicles, creating a favorable foundation for developing services on its website. Furthermore, opportunities arising from online ride-hailing trends, digital transformation policies, and the growth of tourism in Central Vietnam offer significant potential for market expansion and improved online business efficiency. However, VITRACO still faces some limitations, such as an unoptimized website, ineffective SEO and digital marketing activities, and a lack of highly specialized personnel in this field. Simultaneously, competitive pressure from larger rivals and increasingly demanding customer expectations regarding experience and data security also present significant challenges for the company. Therefore, in the coming period, VITRACO needs to make good use of its existing strengths and opportunities, while overcoming weaknesses and proactively addressing challenges in order to enhance its position and competitiveness in online business operations.

#### **4.7. Conclusion of Chapter 4**

Chapter 4 focused on analyzing the current state of online business operations of VITRACO Transport and Tourism Joint Venture Company Limited through evaluating website effectiveness, online marketing activities, the business environment, and the SWOT matrix. The analysis results showed that VITRACO possesses many strengths such as brand reputation, operational experience, a large fleet, and a relatively stable website platform, creating a favorable foundation for developing online transportation services.

Besides these strengths, VITRACO's online business still faces some limitations such as an unoptimized website interface, low SEO and digital marketing effectiveness, and a lack of specialized personnel in this field. Furthermore, the company is also facing many opportunities from the increasingly popular trend of online ride-hailing, policies promoting digital transformation, and the growth of the tourism industry in the Central region. However, competitive pressure from major rivals, seasonal fluctuations in travel demand, and increasingly high customer expectations for experience and data security also pose significant challenges.

From the above analysis, it can be seen that improving the efficiency of online business operations is a necessary requirement for VITRACO in the current period. This is the basis and foundation for proposing appropriate solutions to improve service quality, optimize website operations, and enhance the competitiveness of the enterprise in Chapter 5.

## **CHAPTER 5. SOLUTIONS TO IMPROVE THE EFFICIENCY OF VITRACO'S ONLINE TRANSPORTATION SERVICES**

### **5.1. Basis and development orientation for the period 2025 – 2030**

Based on the analysis of VITRACO's online transportation service operations in Chapter 4, it is evident that the website is a crucial channel, playing a central role in reaching customers, increasing revenue, and retaining loyal customers. The rapid growth in revenue and the number of online bookings, along with limitations in technology, user experience, and process automation, highlights the urgent need to develop a strategic development plan for the 2025-2030 period.

Given the increasingly developing transportation and tourism market in Central Vietnam, the growing trend of online service bookings, and policies encouraging digital transformation, VITRACO needs a comprehensive development strategy to improve operational efficiency, strengthen its competitive position, and build a sustainable brand.

#### **5.1.1. Overall development orientation**

Firstly, VITRACO needs sustainable development in the transportation and tourism sector combined with digital transformation. This means not only focusing on expanding the number of services and vehicles, but also prioritizing optimizing operational processes, improving service quality, reducing costs, and increasing efficiency through the application of digital technologies. Combining digital transformation will help the business track and analyze customer behavior, personalize services, optimize fleet management, and enhance data-driven decision-making, thereby creating a sustainable competitive advantage.

Secondly, VITRACO's strategic goal is to build a leading transportation and tourism brand in the Central region. This depends not only on operational capacity and service quality but also on its ability to reach customers online, its digital marketing capabilities, and its brand image on digital platforms. Building a leading brand means creating trust and recognition in the minds of customers, helping businesses retain loyal customers, attract new customers, and expand market share in the region.

### 5.1.2. Website platform development strategy

VITRACO's website is identified as a core business and customer service channel. It serves as the primary platform for customers to access service information, book rides online, check prices, and receive prompt support. Therefore, investing in website upgrades will directly impact revenue, customer experience, and the company's competitiveness.

Website development strategies include continuously improving page load speed, enhancing user experience, and automating the entire booking, payment, and customer service process. Optimizing UX/UI, integrating customer behavior analytics tools, automated chatbots, CRM systems, and diverse online payment options will improve conversion rates and increase customer satisfaction. Simultaneously, the website needs to be closely integrated with digital marketing channels and internal operating systems to ensure customer data is effectively utilized, enabling the business to make accurate and timely decisions.

Therefore, based on the analysis of the current situation and market trends, in the period 2025–2030, VITRACO needs to focus on sustainable development, building a leading brand in Central Vietnam, transforming the website into a core business channel, and continuously improving user experience and automation capabilities to create a solid foundation for the solutions to enhance the efficiency of online transportation services that will be implemented in subsequent sections.

### 5.1.3. Business and marketing objectives

Based on the analysis of VITRACO's current online business operations and existing problems in the previous chapter, the company needs to identify specific business and marketing objectives to improve the effectiveness of its website operations in the future.

Firstly, achieving a 20% annual growth in online revenue is considered a key objective in VITRACO's business development strategy. Increasing revenue through online channels not only helps the company expand its market reach but also reduces its dependence on traditional sales channels, thereby improving overall business efficiency.

Secondly, the goal is to increase the customer return rate to over 85% to build a loyal customer base and maintain long-term relationships with service users. Returning

customers generally have a higher level of trust and lower maintenance costs compared to new customers. Therefore, improving service quality, user experience, and online customer care will be key to achieving this goal.

Thirdly, achieving high rankings on Google search for keywords such as "Da Nang car rental" and "Central Vietnam tourist car rental" will help VITRACO increase its visibility and reach potential customers. Improving search rankings not only contributes to increased organic traffic to the website but also enhances brand recognition in the transportation and tourism service sector.

These business and marketing objectives are aligned with VITRACO's development direction and serve as an important basis for proposing and implementing specific solutions in the following sections of this chapter.

## **5.2. Strategic solutions group on governance and market orientation**

### **5.2.1. Completing the digital transformation strategy**

To enhance the effectiveness of its online business operations, VITRACO needs to develop and implement a comprehensive, long-term, and synchronized digital transformation plan across all departments. The digital transformation strategy should not only focus on maintaining the website but also aim for close integration between the service sales website, internal operating systems, marketing activities, and financial management.

First and foremost, the website should be identified as the central hub of online business operations, serving as the primary point of contact for orders, service information, and customer interaction. The website system needs to be integrated with operational management tools such as fleet management, scheduling, order tracking, and customer information management to help the business process requests more quickly and accurately. This integration will contribute to minimizing manual operations, reducing errors, and improving employee efficiency.

Furthermore, online marketing activities need to be closely linked with the website and customer data to effectively implement promotional campaigns, customer care, and user retention. Data from marketing channels can help businesses assess customer behavior and adjust business strategies accordingly. Simultaneously, integrating the

financial and accounting system with the online platform will enable VITRACO to track revenue, expenses, and business performance transparently and promptly.

### 5.2.2. Online customer segmentation and positioning

In the process of developing online business, clearly identifying the target customer segment and building suitable services plays a crucial role in the effectiveness of marketing and sales activities at VITRACO. Based on market analysis and consumer behavior, the company should focus on two main customer groups: individual tourists and small and medium-sized businesses that need to rent vehicles for business trips, travel, or events.

Individual tourists tend to search for and book services through online channels such as websites or digital platforms. These customers value convenience, price transparency, and a simple, quick booking process. Therefore, VITRACO needs to orient its services towards accessibility, user-friendliness, and flexibility. Simultaneously, it is necessary to provide complete and detailed information about rental packages, itineraries, and costs directly on the online platform to meet their need for information transparency.

For medium-sized businesses, the need for vehicle rentals is typically stable and long-term, serving purposes such as transporting partners, employees, or organizing events. This customer group prioritizes service quality, the reputation of the provider, and the ability to flexibly meet specific requirements. Therefore, VITRACO needs to build an image as a professional and reliable transportation partner, ensuring the provision of the most flexible and optimal vehicle rental solutions for businesses.

In parallel with clear segmentation and positioning, VITRACO also needs to gradually apply a personalized service model in online business. By collecting and analyzing data from the website, the business can offer customized service packages designed to the needs of each customer group. This not only enhances the user experience but also contributes to increased satisfaction and repeat business rates.

### 5.2.3. Developing partnerships with e-commerce platforms for tourism

To expand its customer reach and improve online business efficiency, VITRACO needs to proactively implement collaborative solutions with e-commerce platforms for

tourism such as Traveloka, Mytour, Booking, etc. These platforms have a large user base and are suitable for the target customer group the business is aiming for.

Specifically, VITRACO should register and build a car rental service storefront on these tourism e-commerce platforms, while standardizing service information, fleet images, and price lists to create professionalism and consistency in customer outreach. Appearing on these platforms will help the business increase brand awareness and effectively tap into online customer sources, especially domestic and international tourists.

In addition, VITRACO needs to establish a clear coordination process with tourism e-commerce platforms for order processing, service confirmation, payment, and handling customer feedback. Businesses should also leverage existing marketing tools on partner platforms, such as promotions, customer reviews, and service recommendations, to enhance their competitiveness against rivals.

Furthermore, VITRACO needs to flexibly combine its own website with e-commerce travel platforms to avoid complete dependence on third parties. The website will continue to serve as a long-term brand building channel and a way to nurture loyal customers, while e-commerce travel platforms help expand the market and attract new customers. Implementing this solution synchronously will contribute to improving VITRACO's online business performance in the future.

### **5.3. Website technical and infrastructure solutions group**

#### **5.3.1. Optimize website performance and interface**

To improve website performance, the first step is to shorten page load times and redesign the user interface (UX/UI) to be modern, intuitive, and mobile-friendly. Optimizing page load speed allows customers to access the site quickly, reduces bounce rates, and increases conversion rates for online ride bookings. Simultaneously, UX/UI design should focus on simplifying the booking, payment, and information retrieval processes, creating a convenient and seamless experience.

Furthermore, integrating user behavior measurement tools such as Google Analytics, Heatmap, or tools that track clicks, time spent on the page, and website navigation behavior is essential. This data will help businesses analyze customer behavior, identify problem areas, optimize the interface, and improve the user

experience in real time. Applying these analytical tools also helps marketing and website management teams make data-driven decisions, enhancing the effectiveness of advertising campaigns and content strategies.

### 5.3.2. Data security and safety

Data security and safety are of paramount importance to VITRACO in protecting customer information and enhancing website trust. Therefore, the company needs to implement a comprehensive set of technical and management solutions to ensure the security of its information systems.

First, VITRACO needs to implement an advanced SSL certificate for its website to encrypt data during transmission, protecting customers' personal and payment information. In addition, the company should apply web application firewall (WAF) solutions to prevent cyberattacks, unauthorized access, and other data security risks.

Simultaneously, regular data backups should be performed to ensure data recovery in case of technical failures or cyberattacks. Backup data should be stored securely, and a plan for regular checks and recovery should be in place to ensure the effectiveness of the backup system.

In addition to technical solutions, VITRACO needs to develop and publish a clear information security policy on its website, in accordance with the regulations of e-commerce law and the Law on Cybersecurity. The security policy should specifically define the collection, use, storage, and protection of customer data, thereby enhancing transparency and building trust among online service users.

The full implementation of security and data safety solutions will not only help VITRACO mitigate risks during website operation but also contribute to enhancing brand reputation and online business effectiveness in the future.

### 5.3.3. Integrating payment systems and information management

One of the key solutions to improve online business efficiency is integrating diverse payment systems and customer information management. VITRACO needs to connect its website with popular payment gateways such as VNPAY, Momo, and ZaloPay to facilitate customer payments, increase booking completion rates, and reduce transaction management effort.

Simultaneously, integrating a Customer Relationship Management (CRM) system will help store, track, and analyze customer data, thereby personalizing services, sending notifications, promotions, and automated responses. The CRM system also supports internal management, optimizes customer service processes, minimizes errors, and improves work productivity. The combination of online payments and CRM creates a seamless digital ecosystem, helping VITRACO increase online revenue, improve service quality, and enhance the overall customer experience.

Thus, the technical solutions and website infrastructure will be the key foundation for VITRACO to improve its online operational efficiency, while also facilitating the deployment of digital marketing solutions, digital transformation, and process automation in the following chapters.

## **5.4. Human resources and organizational solutions**

### **5.4.1. Providing technology skills training for employees**

VITRACO needs to focus on training and enhancing the technological skills of its staff. In the context of the increasingly rapid digital transformation, equipping employees with knowledge of technology and e-commerce helps them better adapt to new requirements in operating and providing services on the website platform.

The company can organize short-term training courses or internal workshops related to website management, e-commerce, and the use of data analytics tools. Through these programs, employees will gain a better understanding of how to operate the website, monitor user behavior, evaluate business performance, and better support customers during the online ride-hailing process.

Technological skills training not only improves employee productivity but also contributes to minimizing errors in system operation. At the same time, this is also an important foundation for VITRACO to gradually build a team of personnel capable of meeting the requirements of online business development in the coming period.

### **5.4.2. Mechanisms for incentivizing and evaluating performance**

To ensure effective and well-directed digital marketing activities, VITRACO needs to establish a performance evaluation mechanism linked to actual results. Defining appropriate metrics for each digital position helps the company better control

work progress and provides a basis for comparison and improvement of online marketing quality.

Evaluation metrics can be designed based on the effectiveness of the website and digital channels, such as customer reach, number of successful bookings, user interaction, and feedback after service use. Through this evaluation system, the company can identify strengths to be leveraged and weaknesses to be addressed during implementation.

In parallel with evaluation, VITRACO should implement a flexible compensation policy, where bonuses are linked to conversion rates and customer satisfaction. This approach not only motivates employees to improve their performance but also helps direct all digital activities toward the goal of improving customer experience and achieving sustainable growth for the business.

## **5.5. Group of solutions supporting management and smart technology**

### **5.5.1. Applying CRM systems and data analysis**

In the development of its online business, the implementation of a Customer Relationship Management (CRM) system plays a crucial role for VITRACO. This system allows the company to collect and manage customer information centrally, from booking history and service usage frequency to feedback during website experiences. This enables the company to better understand the needs and habits of each customer group.

By leveraging data from the CRM, VITRACO can create more suitable service packages for each customer segment, enhancing personalization in service delivery. This not only improves the user experience but also contributes to increasing the likelihood of repeat business.

Furthermore, data analyzed from the CRM system supports the company in guiding marketing activities and post-sales customer care. Decisions regarding promotional programs, communication content, or incentive policies will be made based on real-world data, helping to improve implementation efficiency and use resources more effectively.

### 5.5.2. AI and chatbot applications for customer service

In a context where customers increasingly prioritize speed and convenience, applying artificial intelligence (AI) and chatbots to customer service is a suitable solution for VITRACO. Virtual assistants can be directly integrated into websites and online platforms to assist customers in searching for information, checking service prices, selecting vehicle types, and making bookings conveniently.

Chatbots help businesses maintain continuous support, even outside of business hours, thereby reducing the workload for customer service representatives and shortening response times. Through pre-built scenarios, the system can answer common questions, guide customers through the booking process, and connect them with the relevant department when more complex needs arise.

In addition to support functions, AI and chatbots also play a role in collecting user feedback and reviews after using the service. This information is a crucial data source that will help VITRACO adjust service quality, improve customer experience, and enhance the effectiveness of its online business operations in the future.

## **5.6. Proposed implementation roadmap**

### 5.6.1. Short-term phase (2025 – 2026)

The short-term focus is on strengthening the website's fundamental technical and operational capabilities to address current limitations and lay the groundwork for further development in the future.

First, the company needs to prioritize optimizing the existing website, including improving page load speed, standardizing the UX/UI interface, ensuring mobile-friendliness, and enhancing the stability of the online ride-hailing system. Technical optimization helps reduce bounce rates, improve user experience, and increase conversion rates.

Simultaneously, implementing a basic SEO strategy is a key task to increase organic traffic. The company needs to optimize content for keywords related to transportation services, car rentals, and tourist shuttle services in Da Nang and the Central region; while also standardizing the website structure, meta tags, images, and article content. SEO at this stage primarily aims to improve search engine visibility and build a long-term content foundation.

Besides technical aspects, training personnel responsible for website management and digital marketing is crucial. Employees need to be equipped with basic knowledge of website management, data analysis (Google Analytics), SEO, online customer service, and ride-hailing order processing. Improving human resources ensures that technical solutions operate effectively.

Furthermore, businesses should implement a basic CRM system to store customer information, manage transaction history, and support after-sales customer service. CRM at this stage doesn't need to be complex, but it plays a vital role in standardizing data and creating a foundation for future service personalization.

#### 5.6.2. Medium-term period (2027 – 2028)

After completing the basic infrastructure, the medium-term phase focuses on expanding digital operations and improving customer acquisition efficiency through multi-channel and smart technology.

First, Vitracco needs to expand its digital communication channels, including social media (Facebook, Zalo, TikTok), Google Ads, remarketing, and email marketing. These channels need to be closely linked with the website to create a seamless customer journey from awareness and research to booking and post-service feedback.

Next, linking with OTA (Online Travel Agency) platforms such as Traveloka, Booking.com, Mytour, or domestic travel platforms will help the business expand its market, especially the segment of tourists and customers outside the local area. Vitracco's website will act as a central hub for receiving and coordinating orders from these partner platforms.

A key step forward in the medium term is the application of AI technologies at an assistive level, such as automated chatbots, service recommendation systems based on user behavior, or data analysis to forecast seasonal demand. AI helps reduce the workload on customer service departments, improve response speed, and enhance service professionalism.

In addition, CRM systems need to be upgraded and more deeply integrated with websites, marketing, and operational systems, allowing for customer segmentation, customer lifecycle tracking, and evaluation of the effectiveness of each marketing

channel. This helps businesses optimize marketing costs and improve online business efficiency.

### 5.6.3. Long-term period (2029 – 2030)

The long-term goal is to complete a comprehensive digital ecosystem, where the website is not just a service sales channel but becomes a central hub for coordinating and managing all transportation and customer care activities.

Businesses need to build an integrated digital ecosystem, including a website, advanced CRM, transportation management system (TMS), trip data, electronic payments, and partner platforms. Integrating data helps businesses manage centrally, reduce operating costs, and improve data-driven decision-making.

A key focus is personalizing the entire booking and customer care process. Through Big Data analytics and AI, the system can automatically suggest suitable services, flexible pricing based on needs, schedule bookings, send personalized offers, and provide post-trip customer care. Personalization enhances the experience, increases customer satisfaction, and boosts return rates.

Ultimately, Vitraco could aim to build a smart transportation service model where customers can track their journey in real time, provide instant service feedback, and interact two-way with the business on a digital platform. This is a strategic move to create a sustainable competitive advantage in the context of the increasingly digitized transportation industry.

## **5.7. Conclusion of Chapter 5**

Chapter 5 proposed a system of solutions to improve the efficiency of transportation services on the website platform at Vitraco Transport and Tourism Joint Venture Company Limited, based on the analysis of the current situation and the theoretical foundations of the previous chapters. The solutions were developed in a way that is synchronized, feasible, and consistent with the company's digital transformation orientation.

Specifically, the solution groups focus on improving the technology platform, optimizing the website and user experience; enhancing digital marketing activities to expand customer reach; and improving human resource capacity and management efficiency. In addition, a roadmap for implementation in the 2025–2030 period was

proposed to deploy the solutions step-by-step, in accordance with the company's resources.

The proposed solutions demonstrate that improving the efficiency of Vitracco's online transportation services requires a synchronized approach encompassing technology, marketing, human resources, and management, aiming for comprehensive digital transformation and sustainable development during the 2025-2030 period.

## **CONCLUDE**

This study was conducted to analyze and evaluate the effectiveness of online transportation services provided through the website platform of Vitracco Transport and Tourism Joint Venture Company Limited in the context of digital transformation and the growing application of e-commerce in the transportation industry. By combining theoretical frameworks with practical analysis, the research has achieved its main objectives and provided meaningful insights for both academic and practical purposes.

The study first systematized the theoretical foundations related to transportation services, e-commerce applications, and website performance evaluation. These theories served as an essential basis for assessing the current state of Vitracco's online transportation services. Through qualitative and quantitative research methods, including customer surveys, in-depth interviews, and data analysis, the research identified both achievements and limitations in the company's website operations. While the website plays an important role in providing information and supporting customer access, shortcomings remain in user experience optimization, online payment integration, system automation, and the effectiveness of digital marketing activities.

Based on the analysis results, the study proposed a comprehensive set of solutions focusing on website optimization, digital marketing enhancement, technological application, organizational restructuring, and human resource development. These solutions aim to improve operational efficiency, increase customer satisfaction, and strengthen Vitracco's competitiveness in the online transportation market.

Despite its contributions, the study still has certain limitations related to data scope, research timeframe, and the level of technology integration analyzed. Future studies may expand the research scale, apply advanced analytical models, or compare multiple enterprises to provide more generalized conclusions. Overall, this research contributes valuable references for transportation enterprises in implementing e-

commerce strategies and supports the sustainable development of online transportation services in Vietnam.

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