DOKUZ EYLÜL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF MARITIME BUSINESS ADMINISTRATION
MARITIME BUSINESS ADMINISTRATION PROGRAM

DOCTORAL THESIS

Doctor of Philosophy (PhD)

DETERMINANTS OF CORPORATE REPUTATION: AN ANALYSIS OF CONTAINER PORTS

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İZMİR-2022

THESIS APPROVAL PAGE

DECLARATION

I hereby declare that this doctoral thesis titled as **"Determinants of Corporate Reputation: An Analysis of Container Ports"** has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honor.

23/09/2022

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ABSTRACT

Doctoral Thesis

Doctor of Philosophy (Ph.D.)

Determinants of Corporate Reputation: An Analysis of Container Ports

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There has been a growing interest in defining and measuring corporate reputation in both practice and academia during the last few decades. Investors, customers, and other stakeholders' loss of trust has been recognized as potentially damaging to a company's overall performance. As a result, the significance of monitoring and managing this intangible asset is gradually growing.

Ports are featured as one of the most substantial logistics infrastructures integrated into the global supply chains that form international trade. Because of the growth in global economic demand, international trade, systematic risks, supply chain disruptions, and competition, the port's functions are significantly more complex comparing the past. Ports now must meet all kinds of logistical needs of their users in the complex, dynamic, and uncertain environment, in addition to their primary function, which is to create a link between sea and land for the transportation of goods. Considering that the increasing role of the ports includes broader functions and management capabilities, their performance has become even more crucial to the success of overall supply chain performances. All port industry stakeholders, such as ship owner companies, intermediaries, logistics firms and cargo owners and their collaborative management, have become critical to the success of ports. Therefore, corporate reputation, a concept closely related to the stakeholders, has been a prominent issue for ports in last years.

Although there are studies on the definition and measurement of corporate reputation in the relevant literature, there has not been enough study to determine the reputation criteria specific to the maritime and port business. Therefore, the motivation of the study is derived from the need for theory-based research incorporating qualitative and quantitative methods specific to the container port industry that would help understand how the concept of reputation is perceived and maintained.

By adopting Stakeholder Theory introduced by Freeman (1984), this dissertation focuses on the role of corporate reputation in the container port industry. Therefore, the main purpose of this study is to present how container port stakeholders perceive the concept of corporate reputation and examine the factors that determine the reputation of container ports.

In the first stage of the study, qualitative data were gathered via semi-structured interviews conducted with container port stakeholders such as port managers, academics, import-export companies, liner shipping companies, and logistics companies in the European zone. The results show that the reputation concept is often associated with the trust concept by the container port stakeholders, and Effective Communication and Cooperation, Port and Supply Chain Integration, Strategic Port Management, Port Performance, Physical and Technical Characteristics, and User's Satisfaction are determined as the main variables for container port reputation. In the second stage of the study, Port Strategies has been determined as the most important criteria for container port reputation according to the quantitative analysis.

Keywords: Container Ports, Corporate Reputation, Stakeholder Theory, Qualitative Research, Analytic Network Process Method

ÖZET

Doktora Tezi

Kurumsal İtibarın Belirleyicileri: Konteyner Limanları Üzerine Bir Analiz

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Son yıllarda kurumsal itibarın tanımlanmasına ve ölçülmesine yönelik hem uygulamada hem de akademide artan bir ilgi bulunmaktadır. Yatırımcılar, müşteriler ve diğer paydaşların güvenini kaybetmenin bir işletmenin genel performansına potansiyel olarak zarar vereceği kabul edilmektedir. Sonuç olarak, bu maddi olmayan duran varlığın izlenmesi ve yönetilmesinin önemi giderek artmaktadır.

Limanlar, uluslararası ticareti oluşturan küresel tedarik zincirlerine entegre edilmiş en önemli lojistik altyapılardan biri olarak öne çıkmaktadır. Küresel ekonomik talepteki büyüme ile artan uluslararası ticaret, sistematik riskler, tedarik zinciri aksaklıkları ve rekabet nedeniyle limanların işlevleri geçmişe kıyasla çok daha karmaşık hale gelmiştir. Limanlar, günümüzde yük taşımacılığı için deniz ve kara arasında bağlantı oluşturmak olan birincil işlevlerine ek olarak; karmaşık, dinamik ve belirsiz bir ortamda kullanıcılarının her türlü lojistik ihtiyacını karşılamalıdır. Limanların artan rolünün daha geniş işlevler ve yönetim yetenekleri içerdiği düşünüldüğünde, limanların performansları genel tedarik zinciri performanslarının başarısı için çok daha önemli hale gelmiştir. Armatör şirketler, aracılar, lojistik hizmet sağlayıcıları, yük sahipleri gibi tüm limancılık endüstrisi paydaşları ve bu paydaşların iş birlikçi yönetim anlayışları limanların başarısı için kritik hale gelmiştir. Bu nedenle paydaşları yakından ilgilendiren bir kavram olan kurumsal itibar, limanlar için son yıllarda öne çıkan bir konu olmuştur.

İlgili literatürde kurumsal itibarın tanımlanması ve ölçülmesine yönelik çalışmalar yer alsa da, özellikle denizcilik ve limancılık sektörüne özgü itibar kriterlerinin belirlenmesine yönelik yeterli bir çalışmaya rastlanmamıştır. Bu nedenle, çalışmanın motivasyonunu itibar kavramının nasıl algılandığını ve sürdürüldüğünü anlamaya yardımcı olacak, konteyner limanlarına özgü nitel ve nicel yöntemleri içeren teoriye dayalı araştırmalara duyulan ihtiyaç oluşturmaktadır.

Freeman (1984) tarafından ortaya konulan Paydaş Teorisini temel alan bu tez konteyner limanlarında kurumsal itibarın rolüne odaklanmaktadır. Bu nedenle bu çalışmanın temel amacı, konteyner limanı paydaşlarının kurumsal itibar kavramını nasıl algıladıklarını ortaya koymak ve konteyner limanlarının itibarını belirleyen faktörleri incelemektir.

Çalışmanın ilk aşamasında Avrupa bölgesindeki liman yöneticileri, akademisyenler, ithalat-ihracat şirketleri, düzenli hat taşımacılığı şirketleri ve lojistik şirketleri gibi konteyner limanı paydaşları ile gerçekleştirilen yarı yapılandırılmış görüşmeler yoluyla nitel veriler toplanmıştır. Sonuçlar itibar kavramının konteyner limanı paydaşları tarafından genellikle güven kavramı ile ilişkilendirildiğini ve Etkili İletişim ve İşbirliği, Liman ve Tedarik Zinciri Entegrasyonu, Stratejik Liman Yönetimi, Liman Performansı, Fiziksel ve Teknik Özellikler ve Liman Kullanıcılarının Tatmini değişkenlerinin konteyner limanlarının itibarı için ana değişkenler olarak belirlendiğini göstermektedir. Çalışmanın ikinci aşamasında ise gerçekleştirilen nicel analizlere göre Liman Stratejileri konteyner limanlarının itibarı için en önemli kriter olarak belirlenmiştir.

Anahtar Kelimeler: Konteyner Limanları, Kurumsal İtibar, Paydaş Teorisi, Nitel Araştırma, Analitik Ağ Süreci Yöntemi

DETERMINANTS OF CORPORATE REPUTATION: AN ANALYSIS OF CONTAINER PORTS

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ABBREVIATIONS

AHP	Analytic Hierarchy Proces
AMAC	America's Most Admired Companies
ANP	Analytical Network Process
BMAC	Britain's Most Admired Companies
CAQDAS	Computer Assisted Qualitative Data Analysis Software
CATI	Computer Assisted Telephone Interview
CEO	Chief Executive Officer
CSR	Corporate Social Responsibility
EDI	Electronic Data Interchange
ESPO	European Sea Port Organisation
GMAC	Global Most Admired Companies
MCDM	Multi Criteria Decision Making
OCR	Optical Character Recognition
OED	Oxford English Dictionary
RFID	Radio Frequency Identification Device
RQ	Research Question
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SCEM	Supply Chain Event Management
SWS	Single Window System
VTS	Vessel Traffic Services

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INTRODUCTION

Since the late 1980s, the world's geopolitical and strategic view has changed rapidly, and a new structuring process has emerged (Bayraç, 2003: 42). The rapid development in science and technology, globalization, and the removal of national borders has led to intense competition conditions (Çalışkan, 2006: 61). Organizations have to concentrate not only on internal problems but also on numerous advances and demands of their global "stakeholders and resource holders" as a result of technological changes (Hulsmann et al., 2008: 14). The ability to become a preferred firm depends on intangible assets in today's globalized economies, where product life cycles have shortened, and product differentiation has decreased (Dayanç Kıyat and Çalışkan, 2012: 75). In this context, corporate reputation is considered a crucial and relevant intangible asset in today's business world.

In recent years, academics and practitioners have become increasingly interested in defining and quantifying corporate reputation. It is acknowledged that losing the trust of customers, clients, and other stakeholders could harm a company's long-term viability. Also, positive stakeholder evaluations can support business operations and protect an organization from corporate scandals. As a result, controlling and monitoring this intangible asset is becoming increasingly crucial (Feldman et al., 2014: 54). A stakeholder's total opinion of a company over time can broadly describe corporate reputation. This evaluation may be based on the stakeholder's prior interactions with the business, various modes of symbols and communication that convey information about those interactions, and/or a comparison of those interactions with other major competitors (Gotsi and Wilson, 2001). Corporate reputation occurs when determining the organization's relative position among competitors and assists in measuring its performance from an outside perspective (Deephouse and Carter, 2005; Sarstedt and Schloderer, 2010). Although measuring a reputation and comprehending its precise impact on a company is challenging, it has been demonstrated that a positive reputation offers an organization many benefits (Boyd et al., 2010; Dowling, 2006; Firestein, 2006). Therefore, understanding corporate reputation, a broad notion with cognitive and affective components, is crucial for

businesses' strategic management initiatives and efficient interaction with various stakeholder groups (Walsh and Wieldman, 2004).

Ports are the key intersection places for logistics networks that boost global supply chain effectiveness. In order to create value in the complex, dynamic, and uncertain environment, stakeholders provide products and deliver services at ports. Ports are under increasing pressure to improve their performance in terms of economic, organizational, and environmental factors due to the development in international trade and the demand for maritime transport in the global economy. The competitiveness between ports and other maritime transport industry players has changed due to these advancements, which have enhanced port competition globally (Notteboom and Winkelmans, 2003; De Langen, 2007; Molavi et al., 2020). Particularly in the current port competition, the quality of port services should be superior in terms of the speed at which the goods are transported, the amount of damage that is reduced, the security of the operations, and the cost-based benefits that are produced for the users and their supply chains (Suykens, 1986). Also, because of the benefits of containerization, the global container volume has a significant share in world trade, and container ports have become essential parts of the port industry. Moreover, in today's container port industry, stakeholder involvement and port obligations in the social and environmental areas are increasing. In light of these factors, the corporate reputation concept that is directly connected to stakeholders has also emerged as a significant issue for the container port industry.

When the corporate reputation literature is examined, it can be seen that there is no consensus about the definitions of the reputation and corporate reputation concept, there are various dimensions and determinants for examining and measuring the corporate reputation concept and various findings about the effects of corporate reputation. However, no study has been found on these issues specific to container ports. With this motivation, this dissertation aims to investigate the perceptions of container port stakeholders on corporate reputation and examine the factors that determine the reputation of container ports. Each stakeholder group has different experiences, knowledge, beliefs, feelings, and impressions about the company. Therefore attitudes of container port stakeholders regarding reputation and corporate

reputation concepts are evaluated within the stakeholder theory perspective in this dissertation.

The concept of reputation and corporate reputation were introduced in the first chapter of the dissertation. After that, the chapter explains multidisciplinary approaches regarding corporate reputation. Finally, the dimensions of corporate reputation were disclosed after a detailed explanation of concepts related to corporate reputation, such as corporate culture, corporate identity, corporate image, and corporate brand.

The second chapter introduces the concept of corporate reputation management with different meanings according to different theoretical backgrounds. Then, different measurement models for corporate reputation management were explained. Finally, this chapter provides a detailed literature review of definitions of corporate reputation, determinants of corporate reputation, and aspects of successful corporate reputation management.

The third chapter of the dissertation is planned to explain the container ports. This chapter first defines the terms associated with the concept of port and how the concept has changed over time to highlight the ports' main characteristics. After that, the macro environment of the ports was examined in detail. Lastly, this chapter examines the port services for ships and cargo, port performance dimensions, operations in container terminals, and the importance of corporate reputation in container ports.

The fourth chapter is the application chapter of the dissertation, where research methodologies conducted semi-structured interviews and ANP research. Container ports are determined as the scope of the dissertation. After the determinants of container port reputation were revealed into 6 main 23 sub-dimensions at the end of the 50 semi-structured interviews with container port stakeholders, 10 senior managers working in container ports evaluated the obtained determinants. At the end of the research process, Effective Communication and Cooperation, Port and Supply Chain Integration, Strategic Port Management, Port Performance, Physical and Technical Characteristics, and User's Satisfaction are the main variables for container port reputation, and Port Strategies have been determined as the most important criteria for

container port reputation. Moreover, the relationships between the determinants are also evaluated in this chapter.

The dissertation finishes with a general discussion of the research, its theoretical and practical contributions, its limitations, and recommendations for future research. This dissertation has made a contribution by determining how different container port stakeholders form their perceptions about corporate reputation and, with the identified determinants, offers a comprehensive framework for assessing container ports' reputation.

CHAPTER ONE
CONCEPTUAL FRAMEWORK OF CORPORATE REPUTATION

Corporate reputation, which is evaluated as the reflection of the concept of reputation on businesses, has a place in many fields in the economy, sociology, communication, and corporate behavior. It is considered a management tool with strategic value. Corporate reputation reduces uncertainty with the effect of the trust factor it creates, provides a competitive advantage in the market, and has the power to direct stakeholder perceptions. Therefore, reputation and corporate reputation concepts should be evaluated in detail.

This chapter first explains the definitions of reputation and corporate reputation. After that, multidisciplinary approaches regarding corporate reputation were discussed. Then, concepts related to corporate reputation, such as corporate culture, corporate identity, corporate image, and corporate brand were explained. Lastly, the determinants of corporate reputation were presented.

1.1. CONCEPT OF REPUTATION

Reputation is a concept that relates to trust, quality, power, honour, virtue, and its value has been increasing in recent years. The Oxford English Dictionary (OED) describes reputation with the following terms "the condition, quality, or fact of being highly regarded or esteemed; credit, fame, distinction; respectability, good report" (Oxford Dictionary, 2022). The famous American dictionary Cambridge defines it as "the opinion that people, in general, have about someone or something, or how much respect or admiration someone or something receives, based on past behaviour or character" (Cambridge Dictionary, 2022). Lange et al. (2011) stated that one of the earliest and most widely used definitions of reputation is that offered by Fombrun (1995: 72) as " a perceptual representation of a company's past actions and future prospects that describes the firm's overall appeal to its key constituents when compared to other leading rivals." In addition, reputation has been examined from a multidisciplinary approach, including economic, strategic, marketing, sociological, accounting, and organizational views (Fombrun and van Riel, 1997).

The concept of reputation is in direct relation to two concepts in addition to their dictionary meanings. The concepts of trust and reliability form the basis of reputation. While trust represents the belief based on the individual's honesty, reliability represents the power of influence that emerges thanks to the existing talent and knowledge. Therefore, reputation is a shared value of building trust and gaining credibility (Budd, 1994: 11). Reputation also has the feature of determining the social status of individuals or organizations. For this reason, reputation, which is closely related to the concepts of prestige and status, develops according to how individuals define an institution's place and what they expect from it. In summary, the concept of reputation is a stance against the sensitivities of society and includes dignity (Çiftçioğlu, 2009: 4; Kadıbeşegil, 2018: 123).

1.2. CORPORATE REPUTATION

With its broad framework, the concept of corporate reputation has been discussed in the literature within the scope of its different dimensions and related concepts by different disciplines. Therefore, under this title, the definitions of corporate reputation, the approach of other disciplines to the subject, and related concepts are detailed separately.

1.2.1. Definitions of Corporate Reputation

In general, the resources owned by the enterprises are divided into two categories, tangible and intangible resources. While tangible resources consist of all physical goods, facilities, raw materials, and other equipment the organization owns, intangible resources include items that do not appear on balance sheets, such as organizational culture, reputation, and internal control (Carmeli, 2004: 111-112). Among these intangible resources, the importance of reputation is increasing gradually for businesses due to changing conditions.

From the corporate perspective, there are various definitions of reputation. One of the most commonly accepted definitions of corporate reputation is the collective representation of a company's previous behaviours and outcomes that influence how

well it can deliver value to its stakeholders in comparison to its competitors (Fombrun, 1996, Fombrun and Rindova, 1996, Fombrun and Van Riel, 1997, Fombrun et al., 2000). In another widely agreed definition, Hall (1992), Gray and Balmer (1998), and Barnett et al. (2006) defined corporate reputation as the opinions held by the corporation's stakeholders based on an assessment of all of the company's attributes. Similarly, Fombrun and Shanley (1990) and Gioia et al. (2000) defined corporate reputation as the public judgment of comparatively long-lasting and consistent organizational performance and achievement. Moreover, Dowling (2004:20) stated that reputation is an "overall evaluation that reflects the extent to which people see the firm as substantially 'good' or 'bad'". Also, Argenti and Druckenmiller (2004:369) argued that reputation is the "collective representation of multiple constituencies' images of a company built up over time". Table 1 presents the chronological evolution of corporate reputation definitions.

Table 1: Chronological Evolution of Corporate Reputation Definitions

Authors	**Main Concept**	**Definition**
Shapiro (1983:659)	Collective Beliefs- Quality	"Consumers' beliefs toward the quality of the company's products".
Weigelt and Camerer (1988:44)	Belief-History	"Players' belief about the firm's attributes based on data gathered about the firm's history".
Fombrun, and Shanley (1990:235)	Collective Assessment	"Publics' cumulative judgments of firms over time".
Wartick (1992:34)	Individuals-Perception	"The aggregation of a single stakeholder's perceptions of how well organizational responses are meeting the demands and expectations of many organizational stakeholders".
Yoon et al. (1993:215)	History-Expectations Quality	"Reflects the history of its past actions and effects the buyer's expectation with respect to the quality of its offerings".
Fombrun (1996:70)	Perceptual representation (image) - Collective	"Perceptual representation of a company's past actions and future prospects that describe the firm's overall appeal to all of its key constituents when compared with other leading rivals".
Fombrun and Van Riel (1997:10)	Collective representation (image) -Valuable outcome	"Collective representations of a firm's past actions and results that describes the firm's ability to deliver valued outcomes to multiple stakeholders. It gauges a firm's relative standing both internally and externally with its stakeholders, in both its competitive and institutional environment".

Gray, and Balmer (1998:696)	Estimation - Collective	"The estimation of the company by its constituents"
Ferguson et al. (2000:1196)	Perception - Feelings - Collective	"Reflects what stakeholders think and feel about a firm".
Fombrun et al. (2000:243)	Collective representation (image)-Valuable outcome	"Collective representation of a firm's past behaviours and outcomes that depicts the firm's ability to render valued results to multiple stakeholders".
Bromley (2001:317)	Opinions - Collective	"Distribution of opinions...about a person or other entity, in a stakeholder or interest group".
Dowling (2004:20)	Evaluation - Collective	"Overall evaluation that reflects the extent to which people see the firm as substantially 'good' or 'bad' "
Argenti and Druckenmiller, (2004: 369)	Collective representation (image)	"Collective representation of multiple constituencies' images of a company built up over time and based on a company's identity programs, its performance and how constituencies have perceived its behaviour".
Barnett et al. (2006:34)	Assessment	"Observers' collective judgments of a corporation based on assessments of the financial, social, and environmental impacts attributed to the corporation overtime".
Rindova et al. (2007:32)	Collective - Knowledge	"Collective knowledge about and regard for the firm in its organizational field".
Walker (2010:370)	Perceptual representation	"A relatively stable, issue-specific aggregate perceptual representation of a company's past actions and future prospects compared against some standard".
Dowling and Moran (2012:40)	Estimation	"The estimation in which the organization is held"
Hardeck and Hertl (2014:313)	Knowledge - Feelings - Individual	"The knowledge and feelings held by individuals about corporation".
Boivie et al. (2016:188)	Collective - Judgment	"A collective social judgment regarding the quality or capabilities of a focal actor within a specific domain".
Dowling (2016:218)	Admiration - Feelings	"The admiration and respect a person holds of an organization at a point in time".
Kadıbeşegil (2018:69)	Culture	"Transforming culture and values into a lifestyle for businesses".

Source: Extended from Darwish (2021: 9-11)

Table 1 shows a chronological evolution of corporate reputation definition in terms of corporate perspective. According to Table 1, it can be seen that some concepts are mainly used to define reputation, including; collective/ individual, assessment, perception, history, expectation, knowledge, collective image, and feelings. Lange et al. (2011:155) argued:

> *"three different conceptualizations of organizational reputation, being known (generalized awareness or visibility of the firm; prominence of the firm in the collective perception), being known for something (perceived predictability of organizational outcomes and behaviour relevant to specific audience interests), and generalized favourability (perceptions or judgments of the overall organization as good, attractive, and appropriate)."*

Also, Barnett et al. (2006: 32-33) analyzed the definitions and defined corporate reputation under three essential meanings: awareness, assessment, and asset. In the definitions in terms of awareness cluster, there are opinions about how the business is perceived from the outside, and the most commonly used term in the definitions within this cluster is "perception." The assessment set includes stakeholders' references to judgment, estimation, evaluation, and a measure of the business's reputation. The definitions in the asset set qualify the reputation as a value and importance specific to the business. In other words, it references that reputation is an intangible asset with an economic value. Corporate reputation definitions presented in Table 1 are limited to corporations; some of the definitions are suggested without explaining their origin, while others are based on literature. Besides, it is notable that the "stakeholder" term was mentioned several times during the development of the reputation concept.

1.2.2 Corporate Reputation and Multidisciplinary Approach

Several academics have investigated the concept of corporate reputation from various fields of study. From a multidisciplinary point of view, reputation has been addressed from different perspectives such as economic, strategic, marketing, sociological, accounting, and organizational (Fombrun and van Riel, 1997).

One of the first examinations of reputation was in the discipline of sociology, where it was related to individuals. The impact of reputation was investigated from various viewpoints, including the individual's decision-making process (Walton, 1966). In sociology, reputation (individual and organizational) is regarded as a social phenomenon, a feature of modern society, and a social control mechanism. Corporate reputation is a marker of legitimacy in the sociological sense: it is the collective judgment of enterprises' performance concerning expectations and norms in an institutional setting. According to organizational sociologists, reputational rankings

are “social constructions that emerge from a firm’s connection with its stakeholders in a shared institutional environment.” As a result, the rankings arise from many corporation evaluations of existing social norms and expectations (Fombrun and Van Riel, 1997).

Corporate reputation is also treated as a practice and subject of public relations. (Doorley and Garcia, 2007; Haywood, 2005). Public relations methods focused on stakeholder communication are vital in shaping a company’s image and reputation, but they are insufficient in treating reputation and management holistically. Traditional public relations may consider corporate reputation in a short-term perspective and as a tactical issue. However, reputation management is a strategic and long-term one, and traditional public relations should be managed as such (Varey, 2001). Also, communication experts define corporate reputation as a collection of corporate characteristics that contribute to forming a company’s connection with its constituents (Fombrun et al., 2000).

Economists defend that company’s reputation serves as a signal to its customers, suggesting the quality of its services (Shapiro, 1989). They have considered reputation as a resource used in times of uncertainty. Reputation has been claimed to originate from a history of observed behaviors in specific interactions, based on the idea that previous behavior is the best predictor of future performance. Economists argue that individuals use reputation as a decision-making tool when attempting to forecast how their interaction partners will behave in the future (Ching et al., 1992; Lahno, 1995; Whitmeyer, 2000).

Accounting scholars have long seen organizational reputation as a valuable intangible asset that can produce profits when it is strong and detract from earnings when it is poor. Signaling theory has also been used by accountanting studies. This line of reasoning contends that a company’s reputation serves as a public signal regarding its performance and financial position. A company’s publicly available financial information directly contributes to that reputation (Spence, 1974; Keller, 1974; Matthews, 1984; Riahi-Belkaoui and Pavlick, 1992; Zivnuska, 2003).

The importance of corporate reputation is mainly related to consumer behavior in marketing literature. Corporate reputation is frequently viewed as a force that can attract customers and foster loyalty and a component that can impact the buying/selling

process and success (Lin et al., 2003). A company's reputation indicates the beliefs, values, qualities, and prospects that a customer might consider while choosing a product (Fombrun and Shanley, 1990). Also, Fombrun and Shanley (1990) stated that reputation gets to be more significant to the customers in circumstances where there is restricted information about the product/service or when the information needs clarity.

From a managerial perspective, academics have argued corporate reputation extensively. Management scholars have regarded corporate reputation as a strategic resource for attaining a competitive advantage because companies use reputation for their advantage as a tool for differentiation from their rivals (Caves and Porter, 1977; Day, 1994). Barnett et al. (2000: 108) stated that if reputation is intangible and difficult to imitate asset, it can differentiate a firm from the pack and help companies achieve a competitive advantage over their competitors. Because reputations are based on unique internal aspects of businesses, they are difficult to duplicate. A well-established reputation limits mobility and creates rewards for businesses. Reputations are a distinct feature of industry-level structure since they limit firms' activities and rivals' reactions. Figure 1 briefly shows how reputation is a source of competitive advantage (Fombrun and Zajac, 1987).

Figure 1: Reputation as a Source of Competitive Advantage

Reputation: A Powerful Source of Competitive Advantage

	Internal	External
Material Assets	Physical Capital	Market Capital
Cognitive Assets	Knowledge Capital	Reputational Capital

Source: Barnett et al., 2000:109

Besides, business strategy scholars focused on stakeholders to illustrate that managing reputation is hard. Two reasons determine this: lack of indication on how a company's actions affect stakeholders' perception (Mahon, 2002) and stakeholders' critical explication of a company's endeavors to manipulate its reputation (Ferris et al., 2003). Because there are many different aspects to corporate reputation, and each of these aspects is viewed differently by the many stakeholder groups with whom the company interacts, research on individuals, companies, and even groups becomes increasingly essential. The concept of reputation discovers that each of a company's stakeholders is vital, such as strategic management decision-making, strategy creation and implementation, organizational analysis, and the potential to create competitive advantage (Ferguson et al., 2000).

The issue of employees is also significant in dealing with a reputation in terms of strategic management. Suppose corporate reputation is interpreted as a cluster. In that case, employees' commitment to the organization and employees being seen as a subset of earned reputation indicates the importance of corporate reputation for employees (Obiekwe, 2018). Employees working in firms that successfully achieve reputation are bound by a spiritual feeling rather than the responsibilities of economic factors (Bromley, 2001). Employees take the institution's performance to the highest levels with both high motivation and high-quality performance in the responsibilities they have acquired to gain corporate reputation (Butler et al., 2016).

To sum up, corporate reputation is presented as a unique, difficult to imitate and reproduce intangible asset that significantly impacts a company's ability to attract and operate tangible and intangible resources and compete in the marketplace in management. Because of the great importance of corporate reputation, it must be treated as a valuable corporate asset, managed systematically, and employed strategically to achieve long-term competitive advantage (Smaiziene and Jucevicius, 2009: 95).

1.3. CONCEPTS RELATED TO CORPORATE REPUTATION

Corporate reputation is a value that businesses should have. However, businesses need to keep some values within the business to leave a positive impression

on all their stakeholders and create a competitive advantage against their competitors. These values are the concepts of identity, culture, image, and brand. These distinguish one institution from another, ensure its recognition, and create a positive effect and trust in the institution through these concepts by internal and external stakeholders in the market (Avcı, 2019: 45).

1.3.1. Corporate Culture

According to managerial focus, the notion of culture can be defined as "a set of norms and values that are widely shared and strongly held throughout the organization" (O'Reilly and Chatman, 1996).

Corporate culture encompasses the whole within the corporation. Corporate culture is formed by the combination of many elements such as core values, norms, beliefs, assumptions, stories, myths, leaders and heroes, symbols, ceremonies, and language (Şişli and Köse, 2015: 167). Corporate culture is shaped depending on the corporate and its purpose, and it leads the corporate to success in line with its purpose. Many successful corporations have been created their culture in line with different purposes such as quality, excellence, justice, and competition, and each has achieved success in its sectors (Akıncı Vural, 2016:18). Corporate culture provides unity, motivation, and productivity among employees. It gives employees a sense of belonging in the organization. In other words, corporate culture gives employees a sense of belonging and loyalty and ensures their integration with the corporation (Şimşek and Fidan, 2005: 27). For this reason, managers who want to increase their corporation's performance and success should have a command of the corporate culture.

Corporate culture and corporate reputation, which are related to each other, are among the significant intangible assets of businesses in providing competitive advantage. The main cultural values, including credibility, reliability, trustworthiness, and responsibility, are the basis of the perceptual description of a company's reputation (Fombrun, 1996). Besides, culture provides the context for corporate identity, and corporate culture and corporate identity are linked to reputation through this interaction (Dukerich and Charter, 2000: 103-104). Therefore, the concept of corporate

culture has an impact on every aspect of the institution and lays the groundwork for a strong corporate reputation.

1.3.2. Corporate Identity

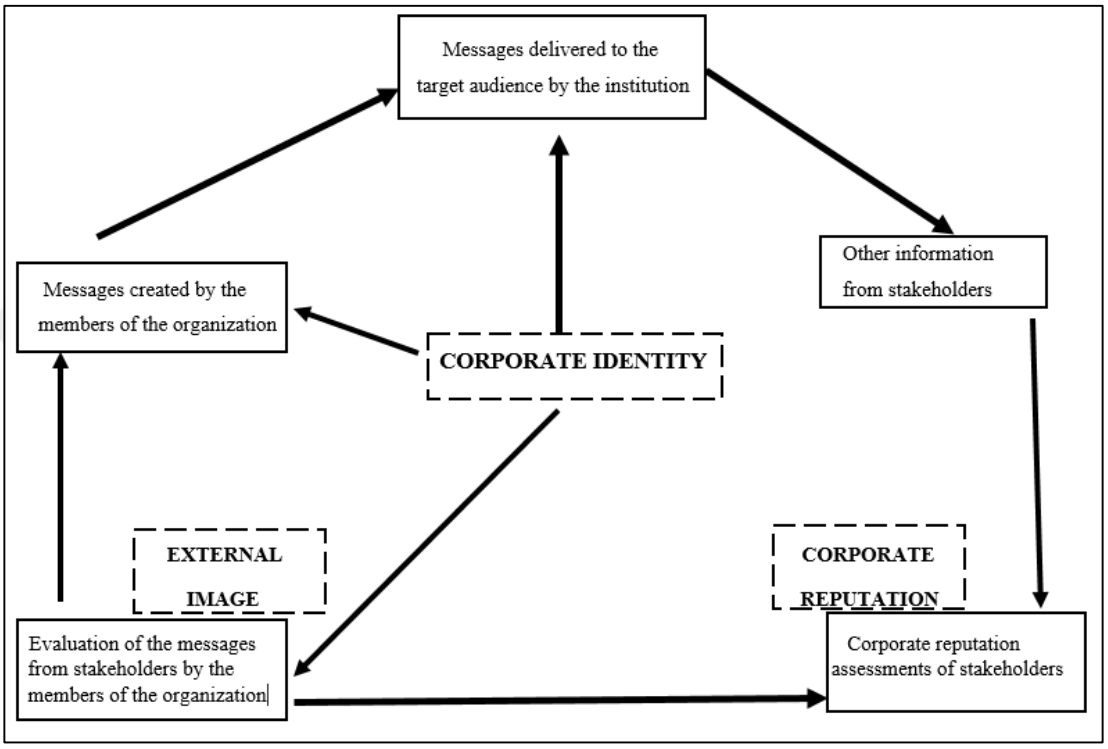
A corporate identity, a unique attribute of an organization, can be defined as a company's self-presentation and the managed cues or signals that an organization offers to stakeholders (Van Riel and Berens, 2001:45; Argenti and Druckenmiller, 2004). Albert and Whetten first stated the concept of corporate identity in 1985, which was used to explain the definitions of originality, difference, and continuity of the people within the business. The originality in the definition is the characteristics of the business; difference features that distinguish the business from others; continuity describes the characteristics of an entity's behavior that have been similar over time (Albert and Whetten, 1985; Van Rekom, 1997: 413).

Corporate identity is about how an organization views itself and is perceived by its surroundings (Ashforth and Mael, 1989). It comprises components such as communication with the institution's environment, management approach, and employees' behavior (Hatch and Schultz, 1997). According to Bankins and Waterhouse (2019), corporates require an identity to ensure staff integration and differentiate themselves from their competition. Because the institutions create similar products, they wish to be different from their competitors to establish the organization's identity.

Corporate identity results from the institution's culture and is fueled by cultural values. The emergence of symbols in creating the image is enabled by identity. In other saying, the image is an output of corporate identity, whereas internal variables feed the corporate identity, and the image serves as its public face (Nacinovic et al., 2009). Chun (2005) argued that the concept of corporate reputation is similar to an umbrella that encompasses corporate image and company identity. The notion of corporate reputation is defined as a concept in which the organization is actually (its real identity), how it promotes itself (the institution's intended identity), and where consumers' perceptions of the institution (corporate image) come together in a common denominator (Gray and Balmer, 1998).

The relationship between corporate image and corporate reputation within the concept of corporate identity is illustrated in Figure 2.

Figure 2: The Relation Between Corporate Identity, Image, and Reputation



Source: Hatch and Schultz, 2002

According to Figure 2, internal stakeholders' impressions of the institution assess corporate identity. There is a significant distinction and interaction between corporate identity, corporate reputation, and external image. While corporate identity is determined by the perceptions of the organization's employees, the corporate image (external image) is the impressions and opinions of external stakeholders about the institution. A corporate reputation is a holistic structure composed of both internal employees' and external stakeholders' impressions. In this context, corporate identity impacts the business image and, over time, shapes the corporate reputation. Thus, corporate reputation is a broad term that encompasses both corporate identity and corporate image (Esenyel, 2020: 78).

Institutions need to have a strong corporate identity to have a positive reputation. The features that institutions should have for a strong corporate identity are as follows (Fombrun, 1995):

- Employees must see the business as reliable. Thus, it is ensured that the employees own the business and are proud of it.
- The business needs to earn a high income, show growth initiative, and show continuity of this situation as it will positively affect the investors.
- The products or services produced by the business must have a certain quality standard, prioritize customer demands and expectations, and have a customer-oriented management approach to positively affect consumers.
- Being sensitive to society and the environment, in other words, good social performance of the enterprise, is essential for creating a strong corporate identity.

1.3.3. Corporate Image

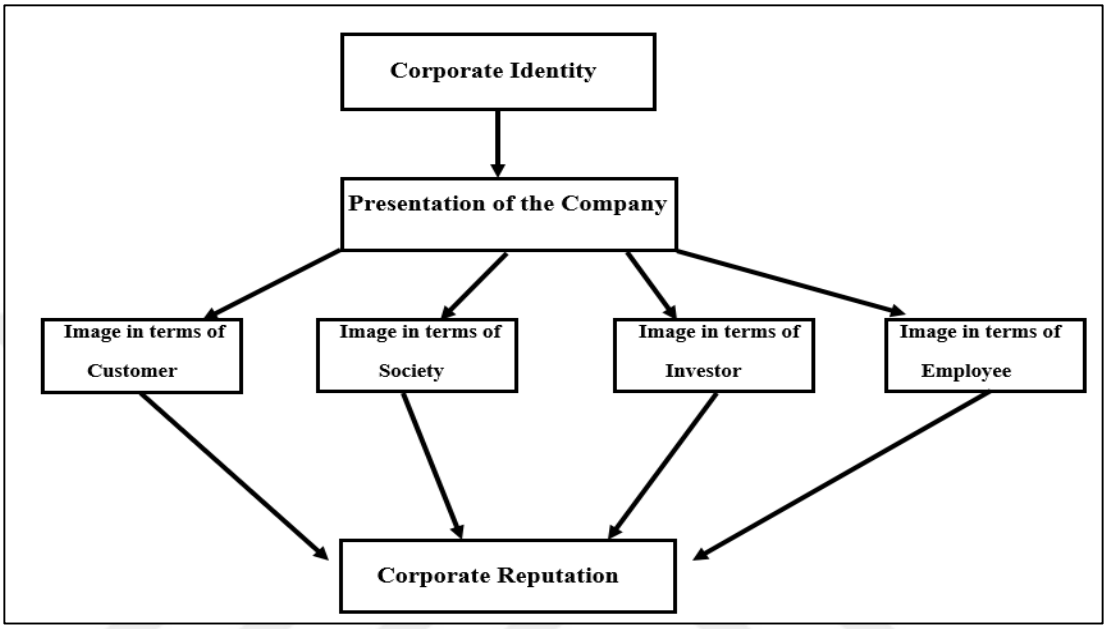
Another important element related to corporate reputation is the corporate image. The corporate image, which consists of perceptions and evaluations of how institutions appear to their stakeholders, is expressed as a set of judgments about the adjectives attributed to the corporate identity in the target group's minds (Çetin and Tekiner, 2015: 419). Corporate image results from a process that includes thoughts, feelings, and previous experiences to form an institution's impression (Gotsi and Wilson, 2001).

The perception of a corporate image can be positive, negative, and neutral because each individual has a different perspective and experience regarding the institution. A positive image is possible with strategic study and evaluation (Karaköse, 2012: 18). The effectiveness of the managers determines how the corporate image is perceived both inside and outside the organization. The professionalism and representation of the institution's administrators are critical in determining whether the institution's image is positive or negative (Dichter, 1985; Yuille and Catchpole, 1977).

According to Fombrun (1995), corporate reputation management first requires the analysis of corporate identity and image. If the concepts of corporate identity and image are mutually consistent as a result of the analysis, plans of the institution should

be determined, and the necessary works should be planned. The relationship between corporate identity, corporate image, and corporate reputation is shown in Figure 3.

Figure 3: Identity-Image-Reputation Model



Source: Fombrun, 1995

As seen in Figure 3, which shows the relationship between corporate identity, image, and reputation, every institution has an identity. Institutions introduce themselves to their target audiences with their names and manage their image with the way they present themselves. The corporate image of the institution is formed in the consumer's mind when the institution presents itself to its target audience. While this image sometimes reflects the corporate identity, sometimes it does not. Since this situation will cause distrust in consumer perception, corporate image and corporate identity should be consistent. Institutions with a harmonious identity and image are referred to by their stakeholders as honest, consistent, and reliable (Er, 2008: 36).

For a long time, corporate reputation and image concepts were used interchangeably as synonyms in academic literature. Most scholars working on the subject of reputation management are now grappling with the challenge of distinguishing between the two notions and discussing the relational differences

between them (Gotsi and Wilson, 2001; Bennet and Kottasz, 2000; Cornelissen, 2004; Neville et al., 2005; Brown et al., 2006). However, the differences and similarities between corporate reputation and image concepts are expounded far, not alike, sometimes even in the opposite way.

The essential difference between corporate reputation and corporate image can be explained as the impact of the image in the face of intense public relations activity. However, corporate reputation results from long-term and rigorous efforts (Lin and Lu, 2010). As a result of regular performance, a company's reputation develops over time; however, the corporate image can be formalized considerably more quickly through well-designed communication programs (Bankins and Waterhouse, 2019).

Another difference appears in the definitions of the concepts. Corporate reputation is described as a perceptual representation of previous acts and future expectations that explain the company's overall appeal to all major stakeholders compared to other competitors (Fombrun and Van Riel, 1997). This definition emphasizes the importance of company reputation in revealing the distinctions between corporations. Individual opinions consist of a company's image; however, reputation is a term that encompasses higher value assessments across the board. As a result, after constructing an image, the next phase is the formation of a reputation (Nguyen and Leblanc, 2001). Differences between corporate reputation, identity, and image are briefly summarized in Table 2.

Table 2: Differentiating Corporate Identity, Corporate Image, and Corporate Reputation

	Corporate Identity	**Corporate Image**	**Corporate Reputation**
Stakeholders: Internal or External	Internal	External	Internal and External
Perceptions: Actual or Desired	Actual	Desired	Actual
Emanating from inside or outside the firm	Inside	Inside	Inside and outside
The positive or negative perception of the firm possible	Positive or Negative	Positive	Positive or Negative
Relevant question	"Who / what do we believe we are?"	"What / who do we want others to think we are?"	"What are we seen to be?"

Source: Walker, 2010: 367

1.3.4. Corporate Brand

A brand is a name, term, symbol, or a combination of these, which introduces the goods or services and distinguishes it from the products and services of others in terms of the customers (Mucuk, 2004: 142). Branding is the transition to image through corporate identity. The branding process affects corporate image to communicate corporate identity value and purpose by communicating with people (Alessandri, 2001: 178-179).

The corporate brand, which is one of the essential features of corporate reputation and enables the institution to reach large masses, can affect the institution's reputation positively or negatively (Fan, 2005: 347). Corporate brand and corporate reputation are interrelated concepts. Mainly, marketing scholars represent some explication of the relationship between brand and reputation. Marketing specialists argue that corporate brand and corporate reputation are distinct constructs, and "failing to make that distinction can lead to costly mistakes". The brand is a "customer-centric" concept related to relevancy and differentiation; however, corporate reputation is a "company-centric" concept and about legitimacy. (Ettenson and Knowles, 2008). According to another view, corporate reputation refers to all impressions about the institution. On the other hand, the corporate brand evokes the shape that is remembered by the target audience, employees, and customers of the institution. In order to create a positive image of the corporate brand, it must first have a broad and rich history and a widespread organizational context. In this sense, the corporate brand also enables the institutions to connect with environmental factors (Aktuğlu, 2004: 22-23).

A positive corporate reputation also increases the commitment of the target customers to the products and services of the institution. In the relevant researches, it is seen that corporate reputation affects the orientation of customers and behavior of individuals, and this effect increases loyalty to the brand (Ahmadi and Tavreh, 2011: 236-238). Because of these reasons, corporate reputation and corporate brand relationship should be particularly considered.

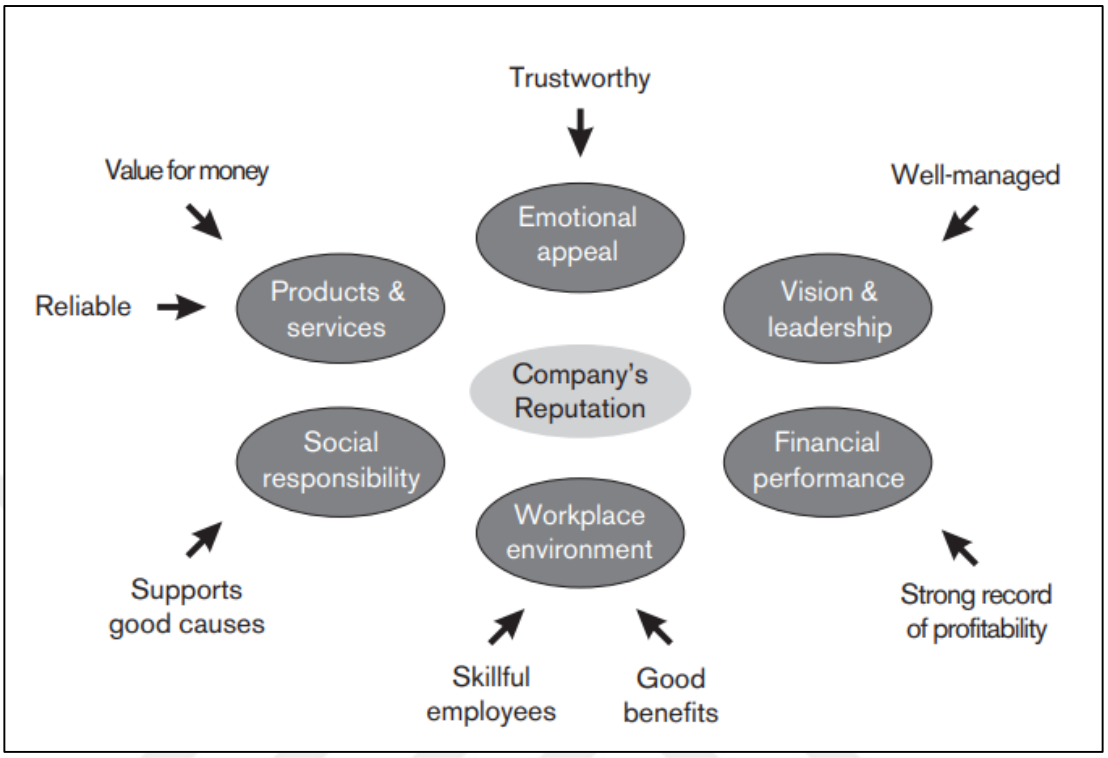
1.4. DETERMINANTS OF CORPORATE REPUTATION

Corporate reputation is one of the most valuable facts for businesses. A robust reputation is crucial for businesses to gain a competitive advantage and reach their goals quickly. However, a successful reputation-building process requires bringing together some critical dimensions.

When the relevant literature is examined, it can be seen that many researchers highlight different dimensions that consist of corporate reputation. For example, Schwaiger (2004) identified corporate reputation dimensions as likability, competence, quality, performance, responsibility, and attractiveness. On the other hand, Walsh and Beatty (2007) determined five different corporate reputation dimensions: customer orientation, good employer, reliable and financially strong company, product and service quality, and social and environmental sustainability. Customer orientation is the willingness of businesses and employees to meet customer needs. Being reliable and financially strong is how the customers perceive the economic prestige, investment power, vision, and reliability of the enterprise. Being a good employer includes how the company treats its employees, employing qualified employees, and good management. Social and environmental sustainability is about how the customers perceive the activities of the businesses regarding their social and environmental responsibilities. On the other hand, product and service quality is the company's offering high-quality, innovative products and services that meet customer demands and expectations and stand behind them (Walsh and Beatty, 2007: 135).

A working group led by Charles Fombrun developed a model to identify the components that create a corporate reputation. In the model, how the stakeholders view reputation was investigated, and as a result, six main dimensions were determined. These dimensions are emotional appeal, product, and services, social responsibility, workplace environment, financial performance, vision and leadership. Figure 4 illustrates the dimensions of corporate reputation.

Figure 4: Dimensions of Corporate Reputation



Source: van Riel and Fombrun, 2007: 153

In Figure 4, the effect of the dimensions on corporate reputation is can be seen. Six main dimensions will be examined below.

- **Emotional Appeal:** Emotional appeal refers to finding the business attractive, liking it, having good feelings towards the business, and the feeling of trust or confidence in the business or the degree to which the business is loved and respected (Yüce and Taşdemir, 2019: 1186; Karaköse, 2012: 37).

Individuals care that the business they interact with is loved and respected by other individuals. Therefore, the formation of such positive emotions is affected by the interests and expectations of society, communication processes, and the businesses' activities. For this reason, businesses want to increase their attractiveness with positive feelings and thoughts about the business by instilling confidence in all their stakeholders (Boztepe, 2014: 6). Thus, the feeling of trust increases emotional attractiveness, which plays an essential role in forming a corporate reputation.

- **Products and Services:** Products and services, which are indicators of the institution's performance, enable the consumers to have a viewpoint towards the institution. For this reason, innovative, reliable, durable, and quality products and services are examined under this component (Baysal Berkup, 2015: 863).

The quality of products and services is directly related to a strong reputation. Consumers' experiences of products and services determine their perceptions of the institution (Soygüzel, 2014: 43). Satisfying products and services support the establishment of a reputation by creating a positive perception in the consumer toward the institution (Tokatlı, 2015: 25).

With the development of technology, consumers can quickly access information through digital channels, and this situation shapes their decision-making processes. Therefore, consumers, who exhibit different characteristics compared to the past, can compare the institution's products and services with rival institutions during the purchasing process. Consumers prefer new and representative products and services, whose expectations have changed with technology. For this reason, innovative, high quality and satisfactory products and services have a positive effect on corporate reputation (Whalley, 2013: 8-10).

- **Financial Performance:** One of the most critical components affecting corporate reputation is financial performance. When the institution's stocks outperform their competitors in the market, the institution has a positive reputation with the investors and target audience (Vergin and Qoronfleh, 1998). Therefore, financial performance is an indicator of an organization's ability to make a profit (Cingöz and Akdoğan, 2009: 12).

When financial performance is evaluated according to internal and external stakeholders, it is seen that all stakeholders expect continuity and consistency from the institution. For this reason, the institution has a more substantial reputation at the point where it achieves positive and regular economic returns. This situation also positively affects the stock performance of the institution. Finding buyers at high prices for stocks that show the economic and social potential of the institution is associated with a successful corporate reputation because the institution with a strong reputation provides investors with a sense of trust and continuity and creates the perception of a low-risk (Fombrun, 1995).

- **Vision and Leadership:** Having a clear vision and a strong leader plays a critical role in maintaining a positive reputation for the environment and the business (Elden and Yeygel, 2006: 284; Bekiş et al., 2013: 20).

Businesses need a leader to have a positive reputation because businesses managed by ambitious and successful individuals with a specific vision will be more preferred by the stakeholders (Kaul and Desai, 2014: 117; Işık et al., 2016). Also, having a vision contributes to the corporate reputation management process because vision is a concept that expresses the future perspective of the institution, the corporate culture, and the future perception of the managers. (Çetin, 2009: 97; Köker, 2010: 165). Institutions that prove that this vision is viable have a reputable corporate image. Having a sectoral perspective and considering the competitive conditions are essential for the corporate reputation management process. Therefore, the concept of vision includes the reputation obtained from long-term and planned studies (Tinik, 2014: 93).

- **Workplace Environment:** The workplace environment includes the feelings and thoughts of the employees about the internal activities and working conditions (Köker, 2010: 174). Employees' willingness to do their job increases corporate success and contributes to corporate reputation. For this reason, it is crucial to create an ideal working environment by the top management (Karaköse, 2012: 41). In addition, the identification of the employees with the business, the adoption of the goals and objectives of the business, and their efforts to realize them both give the business a competitive advantage and contribute to its reputation (Gotsi and Wilson, 2001: 100).

Qualified and talented employees expect an organization that is dynamic, independent, and in harmony with their personal values and their salary and career expectations. For this reason, the institution aiming to have a strong reputation should improve its communication efforts towards its employees, give feedback to its employees about their behavior, and increase motivation by establishing open communication with employees to increase their job performance. In line with the status and objectives of the institution, employees should be informed and supported to become corporate ambassadors. In this way, employees and the institution will make similar efforts on reputation and ensure that the institution achieves its goals (Sakman, 2003: 146).

- **Social Responsibility:** Social responsibility is one of the essential values that create a corporate reputation. Social responsibility refers to the organization's commitment to supporting social causes, being helpful, and being careful and responsible towards the natural environment. The firm develops a positive reputation because it is sensitive to social concerns in its environment and adheres to the notion of creating minimal damage while conducting its activities. (Geçikli, 2016: 1553).

Caroll (1991) defined corporate social responsibility as economic, legal, ethical, and philanthropic responsibilities. Today, institutions that cannot fulfill these responsibilities are warned by the public differently. Suppose a company that does not provide what its employees deserve does not offer exemplary service to its customers and does not respect its area of responsibility. In that case, it has difficulty finding a talented workforce. Also, it is penalized for not receiving the attention it expects from its products and services. (Karatepe, 2008: 89).

The concept of corporate social responsibility covers not only the stakeholders' responsibilities but also process management within the framework of social responsibility awareness prevails in all processes within the organization. Thus, the effects of corporate social responsibility are measurable, auditable, and reportable. As a result of corporate social responsibility investments, the corporation gains financial benefits by contributing to its reputation. For this reason, the concept of social responsibility is of vital importance for institutions today (Aktan and Börü, 2007: 13).

CHAPTER TWO
CORPORATE REPUTATION MANAGEMENT

The corporate reputation is a highly valuable, unique, and evolving asset that should be managed with great care and attention. However, because reputation is an intangible and multidimensional concept, it is challenging to manage. Therefore, corporate reputation management processes, stages, and strategies should be evaluated in detail.

This chapter first explains the process of corporate reputation management and its benefits for organizations. After that, theories regarding corporate reputation management were discussed. Then, different measurement models for corporate reputation management were explained. Lastly, this chapter provides a detailed literature review of definitions of corporate reputation, determinants of corporate reputation, and aspects of successful corporate reputation management.

2.1. CORPORATE REPUTATION MANAGEMENT

In today's conditions, where competition is highly intense, the concept of reputation is vital in terms of the sustainability of institutions and their communication processes with their stakeholders and target groups. Maintaining this reputation as well as gaining it is a process that requires expertise (Uzunoğlu and Öksüz, 2008: 112). At this point, the concept of corporate reputation management becomes a part of an activity.

Corporate reputation management is defined as the process of controlling and directing the thoughts, information, and emotional reactions of internal and external stakeholder groups about the organization (Karaköse, 2012). In other words, corporate reputation management is also expressed as a management function that aims to recognize the importance of reputation and to bring appropriate reputation to the organization's behaviour. In this context, it tries to make management decisions and ensure that reputation is accepted as a value (Okay and Okay, 2012). As can be seen from the definitions, corporate reputation management is a long-term strategy ensuring that an institution's reputation is seen as a tangible asset, measured and maintained in

a planned manner. Institutions should embrace that reputation is a management activity. Corporate reputation will be successfully formed and managed if it is accepted as a management activity.

Corporate reputation management is a process related to directing the perceptions of all stakeholders. With an effective communication strategy, corporate reputation management can be considered a management strategy that allows matching the organizational goals with the employees' goals by identifying the expectations of the stakeholders and the society of the organization (Karaköse, 2012). Therefore, effective corporate reputation management will facilitate achieving organizational goals and increase performance. Within these justifications, it is clear that organizations will need processes and programs to manage their reputations proactively. The objectives of corporate reputation management can be expressed as follows (Schultz and Werner, 2005: 4):

- Maintaining a positive corporate reputation in the workplace and the market,
- Building and strengthening the positive, strong reputation and name of the organization,
- Establish valid and effective practices, policies, procedures, systems, and standards to avoid hazards that may damage the corporate reputation,
- To establish guidelines for making suggestions and determinations about the situations where the organization's reputation may be damaged,
- To create a team that will be fully responsible for corporate reputation and equips the team to take this responsibility.

Corporate reputation management is a structure that evaluates the works of organizations in the past and what they will do in the new period (Çelebi and Sezer, 2017: 119). There are several factors for organizations to manage their reputation. These factors are the economic adequacy of an institution, the supervision of the quality of products and services, the finding of successful employees for the management process, the support of studies that are beneficial for society, the follow-up of innovations and technological developments, and the determination of communication strategies holistically (Okay and Okay, 2012: 394). Heugens et al. (2004: 1355), on the other hand, argues that while managing corporate reputation, it is

necessary to establish skills such as crisis communication, communication with stakeholders and continuous dialogue, and corporate justification in decision making.

In corporate reputation management, the target audience is a critical element to consider. For corporate reputation management to be effective, it is necessary to analyze the target audience correctly and be clear and understandable (Yeşil and Purtaş, 2017: 179). In this direction, businesses should take proactive steps among stakeholders, especially on issues that are important to customers, and gain the trust of their customers because clear and consistent communication is indispensable for a successful corporate reputation management process. Moreover, Doorley and Garcia (2007: 9-11) identified six major components of comprehensive reputation management. These are:

- Customized Reputation Template: It can be a tool for measuring reputation and customized for particular organizations.
- Reputation Audits of Internal and External Constituencies: What employees believe to be the intrinsic identity and how external constituencies view the organization is determined in creating a reputation management plan.
- Reputational Capital Goals: Goals can establish for performance within an industry group or versus competitors.
- An Accountability Formula: This is based on reputation changes assessed using the customized template.
- A Reputation Management Plan: A strategic performance and communication plan becomes a guide for units of the organization to follow short and long term.
- Audit & Reassessment: Annual follow-up audit and assessment according to the standards in the reputation management plan.

As a result, it is thought that the sustainable success of businesses will increase thanks to their corporate reputation. This depends on the correct, effective and efficient management of corporate reputation. In particular, businesses should respond to the expectations of their stakeholders because they cannot continue their existence for a long time without the support and approval of their stakeholders. In this direction, businesses need to accurately and reliably convey the policies they follow regarding corporate reputation management, what they have done so far and what they will do

in the future. In addition, it is necessary to know what elements corporate reputation consists of and to what extent each element impacts stakeholders. The most crucial point that should not be ignored today is that reputation is now a necessity and must be managed practically.

2.2. CORPORATE REPUTATION THEORETICAL BACKGROUND

When the literature on corporate reputation is examined, it is seen that many different theoretical backgrounds are used because corporate reputation is a multidimensional concept. For this reason, it can be said that the theoretical foundations of the subject are handled with an eclectic approach, and these theories are complementary to each other.

The resource-based view is a theory that is frequently used in studies on the concept of corporate reputation. Although the foundations of resource-based theory have been laid since 1960, the definitions made by Barney (1991) and the concept of sustainable competitive advantage led the theory to become widespread in strategy and other fields. The resource-based view emphasizes the need for resources while determining the policies and processes of the organization and states that organizations will be quite successful with scarce and valuable resources (Lepak and Snell, 2003). In this sense, the theory examines corporate reputation as a valuable and scarce resource in terms of sustainable competitive advantage (Walker, 2010). Because corporate reputation contributes to the competitive advantage of organizations as a valuable and scarce resource that cannot be easily imitated by rival organizations, difficult to copy due to the complication in accessing the implicit knowledge that lies in its internal dynamics. Therefore, this resource, which creates a competitive advantage, should be supported by practices such as social responsibility projects and corporate communication activities following the organizational strategy to retain it (Yılmaz and Gürbüz, 2016: 441- 442). To sum up, grounded in the resource-based view, a consensus amongst studies into corporate reputation is that as an intangible asset, a favourable yet sustainable corporate reputation drives an organization's competitiveness. Table 3 shows the four fundamental tenets of the resource-based view and their applications in corporate reputation.

Table 3: Resource-Based View and Corporate Reputation

Valuable	Rare	In-imitable	Non-substitutable	Reference
Resource-Based View				
a resource must enable a firm to employ a value creating strategy, by either outperforming its competitors or reduce its own weaknesses.	to be of value, a resource must be rare by definition that the price of the resource will be a reflection of the expected discounted future above average returns.	if a valuable resource is controlled by only one firm and not duplicatable to competitors, it creates competitive advantage.	even if a resource is rare, potentially value-creating and imperfectly imitable, an equally important aspect is lack of substitutability.	Barney (1986, 1991); Diericx and Cool (1989); Mahoney and Pandian (1992); Amit and Schoemaker (1993); Peteraf (1993)
Corporate Reputation as Organisational Asset				
a favourable corporate reputation is valuable, because it brings competitive edge to a firm.	a favourable corporate reputation is rare, because it can be lost more easily than it can be created.	a favourable corporate reputation can be imitable; however, the ultimate brand is unique and irreplaceable.	a favourable corporate reputation appeals to all stakeholder groups, representing a non-substitutable asset of a firm.	Fombrun (1996); Dowling (2001); Roberts and Dowling (2002); Davies et al.(2003); Bergh et al. (2010); Boyd et al. (2010); Rindova et al. (2010)

Source: Xu, 2011: 18

Since corporate reputation is based on stakeholder perception, one of the most common theories in the related literature is stakeholder theory. According to Freeman's (1984) stakeholder theory, institutions have some common goals with their target audiences. Institutions need to establish strong relationships with their internal and external environment to achieve these goals and gain a competitive advantage. Freeman (1984: 25) defined the stakeholder as the person or group that influences or is affected by the achievement of the organizational goals, and stakeholder groups include governments, political groups, shareholders, trade associations, consumers, employees, suppliers, and competitors. According to another definition, stakeholders can be defined as the person who has the right to make any legal claim from the business. Managers, employees, shareholders, consumers, suppliers, and credit institutions can be counted among the stakeholders. (Hill and Jones, 1992: 133). Freeman's stakeholder theory emerged as a philosophy that cares about all shareholders and listens to their expectations and changing needs over time (Ertuğrul,

2008). Because stakeholders have expectations about the institutions, they interact with. Stakeholder perceptions are formed as a result of the evaluation of the extent to which the institution meets these expectations and whether the institution satisfies the stakeholders or not. The sum of these perceptions creates the corporate reputation. However, managing corporate reputation involves more than simply how businesses should handle controlling the perception of any given stakeholder; it also involves finding ways to apply the vision developing in this area to managing the company as a whole (Davies et al., 2003: 61).

The challenge of the stakeholder approach is balancing each group's various priorities and points of view. Each stakeholder may have unique expectations, needs, and viewpoints. Figure 5 illustrates Fombrun's (1995) thinking regarding differences in stakeholder orientations in terms of corporate reputation. As shown in Figure 5, each stakeholder is looking for something different. Employees might be searching for an employer they can trust, customers for a reliable company, investors for a credible company, and the community as a whole for a responsible business (Davies et al., 2003: 60). In this context, investigations of corporate reputation must adopt a multi-stakeholder approach that takes into account the possibility for varied stakeholder orientations.

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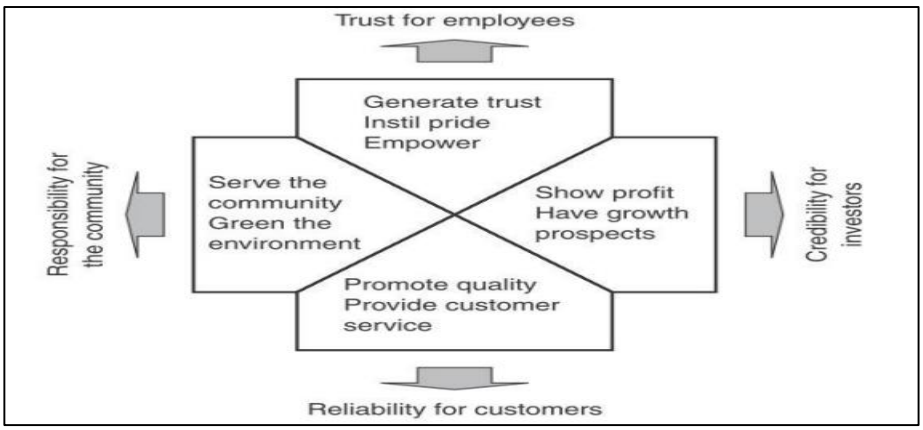
Figure 5: The Stakeholder Perspective



Source: Davies et al., 2003: 60

Institutional theory and, depending on it, legitimacy theory are among the most used theories today when defining corporate reputation. Institutional theory is one of the main approaches in corporate governance philosophy that examines the interactions between an institution and its environment (Bahar, 2019: 228).

According to institutional theory, stakeholders have different expectations from companies. By meeting these expectations, companies try to adapt to their environment. The support, continuity, and legitimacy of companies from the environment depends on compliance with the corporate environment (Meyer and Rowan 1977; DiMaggio and Powell 1991; Suchman, 1995). The basis of institutional theory's philosophy is that organizations' structure and processes are shaped due to their adaptation to the institutional environment. As a result, organizations living in the same organizational environment become structurally isomorphic, as they must conform to similar institutions regardless of their specific intellectual requirements (Özen, 2007). This assimilation process, which appears as isomorphism in the new institutional theory, explains the homogenization of different companies by showing similar characteristics. Establishing the corporate reputation of organizations results from efforts to gain legitimacy, legality, support, and credibility in the environment and society in which they operate. Therefore, efforts by organizations to build reputations without considering their environmental context will not be successful (Yılmaz and Gürbüz, 2016: 440).

Firms institutionalized as a result of isomorphic pressures are rewarded with legitimacy and reputation (Wright and Rwabizambuga, 2006). In this context, it is necessary to draw attention to the relationship between the concepts of reputation and legitimacy. King and Whetten (2008) define the concepts of legitimacy and reputation as the perception that an organization's actions are approved based on stakeholders' evaluations. Both concepts are intangible assets that firms use to improve their performance. However, there are essential differences between these concepts. While legitimacy is the perception that organizations comply with social expectations and standards, reputation is based on distinguishing organizations from their rivals (King and Whetten, 2008). In other words, while legitimacy focuses on the similarities between institutions, reputation deals with the differences between institutions (Bitektine, 2011; Petkova, 2016).

Signaling theory is another substantial theoretical background in corporate reputation studies. Signaling theory clarifies the link between signals and qualities, demonstrating why some signals are dependable and others are not and that the costs of falsely producing a signal must surpass the benefits of falsifying it (Donath, 2007). The signaling theory asserts that the signaller possesses more inside information that is either not publicly known or has not reached the receiver, with the signal quality of equal importance (Spence, 1973; Spence, 1974).

From the signaling theory perspective, corporate reputation signals a firm's attributes or products (Shapiro, 1983). Signaling theorists have an interest in the content of corporate reputation as information. Signaling theorists defend that reputation refers to the informational signals that aid in increasing trust in a company's products or services. (Connelly et al., 2011: 39). According to the theory, firms send signals to observers with their strategic choices and actions, and observers form impressions about firms using these signals. A reputation is formed at the end of this process (Basdeo et al., 2006; Fombrun and Shanley, 1990).

2.3. MEASUREMENTS IN CORPORATE REPUTATION MANAGEMENT

Determining whether the necessary elements for establishing and protecting corporate reputation are successful is only possible by measuring corporate reputation (Karatepe and Ozan, 2017: 92). Although reputation is a multidimensional and intangible phenomenon in terms of its characteristics, it has measurable elements. It is necessary to measure reputation to see how institutions are perceived by their target audiences and different audiences, in which areas reputation is effective, how it benefits, and whether the institution is successful or unsuccessful in managing reputation (Ural, 2012: 11).

Some criteria should be taken into account in the measurement of corporate reputation. Walker (2010) expresses these criteria as follows (Walker, 2010:372-374):

- Measurement should examine perceived reputation,
- Corporate reputation is an issue-specific, aggregate perception,
- The comparative nature of corporate reputation need not be limited to other firms,

- Measurement of corporate reputation should permit the construct to be positive and negative,
- Corporate reputation is relatively stable and enduring.

Many researchers have studied the measurement of corporate reputation. These researchers handled reputation academically and sectorally and developed reputation measurement methods according to several factors. Since there is no standard and commonly accepted method for measuring corporate reputation, it would be appropriate to consider each measurement method separately.

2.3.1. Fortune Most Admired Companies

Many studies in corporate reputation management measurement and valuation are based on AMAC (America's Most Admired Companies) research conducted by the United States of America-based Fortune magazine in 1983 (Walsh and Wiedmann, 2004: 305).

According to the index, companies were asked what the names of companies in the same industry are and how they evaluate these businesses within the determined criteria (Schwaiger, 2004: 52). The evaluation in question was made with eight determined dimensions, and scores were given in the range of 0-10 (Flanagan and O'shaughnessy, 2005: 450). These dimensions are as follows (Schultz et al., 2001: 27):

- Quality of management,
- Quality of products and services,
- Innovativeness,
- Long-term investment value,
- Financial soundness,
- Ability to attract, develop, and keep talented people,
- Responsibility to the community and environment,
- Wise use of corporate resources.

In 1997, Fortune magazine developed the GMAC (Global Most Admired Companies) scale in collaboration with Hay Group, one of the world's leading Human Resources Companies, to expand AMAC to the rest of the world. The 1000 highest-

earnings in the US at the time of ranking Companies and non-US companies on the Global Fortune 500 list, which ranks the 500 largest companies in the world by revenue, were considered. While determining the GMAC list, as in the first index AMAC, the company's senior managers, non-business managers, and analysts evaluated the determined dimensions. The company's effectiveness in doing business globally dimension of the enterprise was added to the eight dimensions determined in the AMAC index to the GMAC index, and the evaluation was made over nine dimensions (Eberl and Schwaiger, 2005: 840).

Fortune reputation indices are criticized for not considering the perception levels of all stakeholders. Reputation, which is the sum of the feelings and thoughts of different stakeholder groups towards the institution, is evaluated only by industry leaders and managers within the Fortune reputation index (Ural, 2012: 11). In addition, according to Brown and Perry (1994), Fortune Index only has criteria that measure financial performance, and this situation creates a halo effect for studies that measure the correlation between corporate reputation and financial performance. Brown and Perry emphasize that these indices, which create inadequacy in measuring social criteria, increase the number of error coefficients (Brown and Perry, 1994: 1348). Nevertheless, these studies formed the basis of corporate reputation measurement indices and attracted great attention.

2.3.2. Merco

Monitor Empresarial de Reputación Corporativa, or Merco, is the Spanish term for the Corporate Reputation Monitor. It was developed in 2001 by Universidad Complutense de Madrid to overcome measurement inadequacies in existing worldwide rankings to measure the corporate reputation of companies operating in Spain (Carreras et al., 2013).

For some reasons, including the methodology (the value is based on the development of a multi-stakeholder assessment, i.e., taking into account the perceptions of all stakeholders) and the accessibility of the reputation rankings' results for the general public, the MERCO Index is positioned as the primary ranking of corporate reputation in Spain. Various steps in the review process go into creating the

reputation ranking. First, committee members of all companies billing more than €50 million annually in Spain are surveyed. Consequently, a preliminary ranking is offered. Then, opinion leaders, trade unions, consumer associations, those connected to NGOs, financial analysts, and consumer associations are surveyed. Finally, a direct evaluation is conducted, and a questionnaire is used to verify each company's reputation (Odriozola and Baraibar-Diez, 2017: 125). Variables considered by the Merco ranking are as follows (Daza-Izquierdo, 2015: 86):

- Economic and Financial Results: Accounting profits, Profitability, Quality of economic information
- Quality of the Commercial Offer: Product values, Brand values, Customer service
- Internal Reputation: Job quality, Ethical and professional values, Identification with the company's project
- Ethics and Corporate Responsibility: Ethical corporate behavior, Commitment to the community, Social and environmental responsibility
- Internal Dimension: Number of countries where it operates, Volume of business abroad, International alliances
- Innovation: Research and development investments, New products and services, New channels

Merco's methodology enables an overall assessment of stakeholders' opinions on the companies analyzed. However, it is important to note that not all reputable companies are traded on the Spanish stock exchange (Daza-Izquierdo, 2015: 86). Nevertheless, due to its impact on the area outside of Spain, including Argentina, Colombia, and Chile, it is regarded as a truly major national and worldwide reference point in the commercial world.

2.3.3. German Managermagazin/ Gesamtreputation

The ManagerMagazin has been conducting surveys to measure corporate reputation since 1987. A random CATI (computer-assisted telephone interview) survey of roughly 2,500 executives was conducted by the authorized agency in 2000.

Participants were asked to rank the top 100 German corporations on an eleven-point scale for the following factors (Schwaiger, 2004: 54):

- quality of management
- innovativeness
- ability to communicate
- environmental responsibility
- financial and economic stability
- product quality
- value for money
- employee orientation
- growth rates
- attractiveness to executives
- internationalization

2.3.4. Reputation Quotient

The reputation quotient (Harris Fombrun Reputation Quotient), which Charles Fombrun developed in order to follow the perceptions of the stakeholders of the institutions and later turned into a standard method constantly used by the Reputation Institute and Harris Interactive companies, is one of the most important measures of reputation (Fombrun, 2001)

The reputation quotient model is two-stage. In the first stage, candidate institutions are determined to measure a general judgment, and evaluations are made online or by phone calls. In the second stage, the institution's stakeholders to be examined in more detail are determined. Many stakeholders, such as investors, employees, and customers are examined online by asking questions of six dimensions and twenty components (Demir, 2018: 68). These dimensions and components are as follows (Fombrun et al., 2000: 251):

- Emotional Appeal: Have a good feeling about the company, admire and respect the company, and trust the company a great deal.

- Products & Services: Stands behind its products and services, develops innovative products and services, offers high quality products and services, offers products and services that are a good value for the money.
- Financial Performance: Has a strong record of profitability, looks like a low-risk investment, looks like a company with strong prospects for future growth, and tends to outperform its competitors.
- Vision & Leadership: Has excellent leadership, has a clear vision for its future, recognizes and takes advantage of market opportunities.
- Workplace Environment: Is well-managed, looks like a good company to work for, looks like a company that would have good employees.
- Social Responsibility: Supports good causes, is an environmentally responsible company, and maintains high standards in the way it treats people.

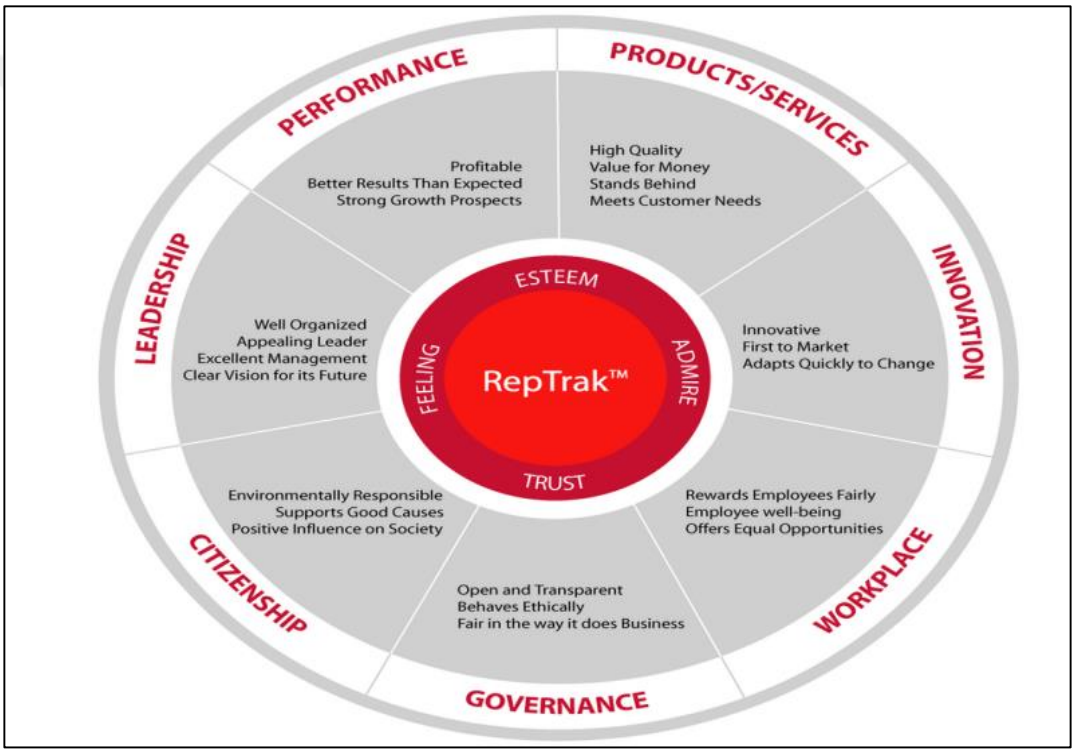
The reputation quotient model revealed what the stakeholders think about the company. The model emphasizes how the stakeholders see the corporate reputation and what should be done to increase the corporate reputation (Oktar and Çarıkçı, 2012, 130). The fact that it can be applied to many stakeholder groups, in other words, that it is not intended for a single stakeholder group and can be applied to different institutions is considered an advantage of the model (Eckert, 2017: 152). Since Reputation Quotient is prepared with a wider perspective, it is described as a newer and healthier measurement method than Most Admired Companies lists (Çakırkaya, 2016: 207). The main criticism of the Reputation Quotient is the static measurement of reputation and the lack of adjustable weights according to the opinions of different stakeholder groups (Cherchiello, 2011: 60). In the following years, the need for a corporate reputation scale that can be applied all over the world and in all sectors emerged. For this reason, Fombrun and colleagues expanded the Reputation Quotient for stakeholders and countries in 2006 and developed a new measurement model called RepTrak.

2.3.5. RepTrak Model

The RepTrak model developed by the Reputation Institute in 2006 is one of the common scales used to measure reputation today. The model puts the qualitative

variables that affect corporate reputation in a certain order. The RepTrak model measures the participants' appreciation, prestige, reliability, and positive feelings about businesses operating in various sectors (Trotta and Cavallaro, 2012: 24). The model consists of seven sub-dimensions and twenty-three performance indicators related to these dimensions, based on four main topics which are feeling, esteem, trust and admire when measuring corporate reputation. These dimensions and indicators are shown in Figure 6.

Figure 6: RepTrak Reputation Model



Source: Reputation Institute, 2017

In the RepTrak Model, in addition to investors, customers, business partners, analysts, employees, and the public; stakeholder groups such as government officials, non-governmental organizations, community leaders, regulators, media, and intellectuals are included, and there is an assessment of approximately 60,000 people (Trotta and Cavallaro, 2012: 26). The strength of the RepTrak model comes from its large sample sizes, standardization of results, and trust based on long experience

(Cherchiello, 2011: 60). In order to verify the cross-cultural validity of the RepTrak model, which is an emotionally based measure of corporate reputation structure, data were collected from 17 countries on six continents and analyzed. The reliability, internal, nomological, and cross-cultural validity of the model have been tested. It has been described as a short and ethical corporate reputation measurement that can be used to facilitate intercultural research (Ponzi et al., 2011: 15).

2.3.6. Other Measurements

Many prestigious organizations have carried out various studies from the past to the present to measure corporate reputation. For example, The Financial Times' World's Most Respected Companies index is one of the other models used to measure corporate reputation. In the model, eight criteria were determined, and the evaluations of each CEO (Chief Executive Officer) were taken into account according to these criteria. These criteria are well-thought-out and strong strategy, the highest level of customer satisfaction and loyalty, business leadership, quality products and services, high-profit margins, strong corporate culture, successful change management, and the globalization movement. The model includes 4000 CEOs from approximately 70 countries (Fombrun, 2007: 146).

Another model used to measure corporate reputation is the Britain's Most Admired Companies (BMAC) index published by Management Today in the UK since 1990, and similarly, the index published by Asian Business under the name of Asia's Most Admired Companies. The two indexes are similar to the scales published by Fortune Magazine (Davies et al., 2004: 127). Moreover, Delahaye Medialink's Corporate Reputation Index, Far Eastern Economic Review's REVIEW 200, and Corporate Branding LLC's Corporate Branding Index are the most widespread and best-known reputation rankings (Schwaiger, 2004: 56).

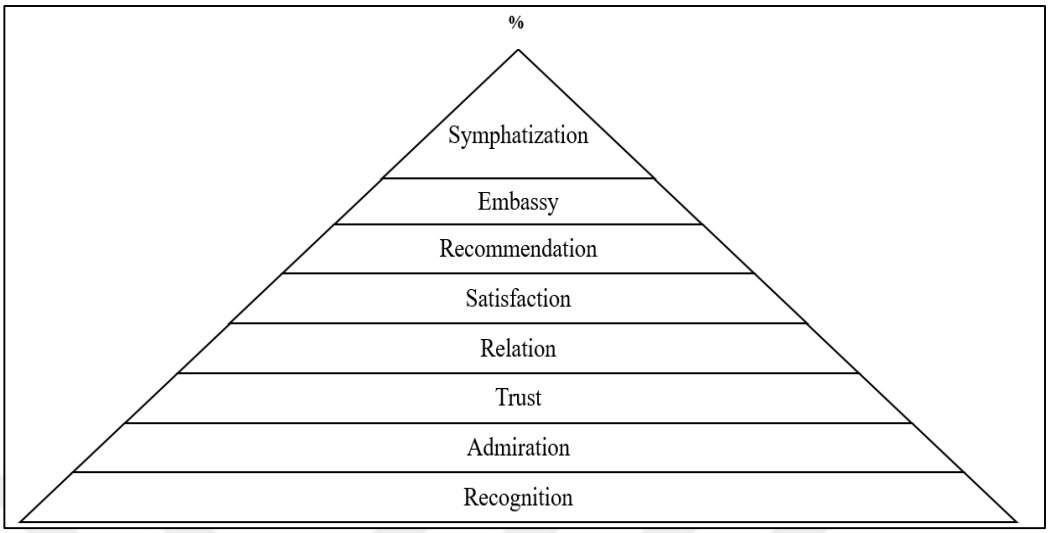
2.3.7. Corporate Reputation Management Measurement in Turkey

The Capital monthly magazine conducted the first research in Turkey related to corporate reputation as "Most Admired Companies" in 1999. This study was the

adaption of the research done by Fortune in the USA and Financial Times, and the respondents were top-level managers. It was considered very prestigious, and some listed corporations also used this in their advertising. In the calculation process, Capital's research is first asked by more than 30 sectors and more than 1000 middle and top executives to score 18 criteria, ranging from one to ten, reflecting the importance of a business in measuring reputation. Then, participants were asked to rank their favourite companies in Turkey and the best three companies in their sectors, together with the reasons. After, asked participants to evaluate their favourite companies in Turkey, their favourite companies in their sector, and their own companies by using the criteria given to them. All evaluations are made by giving the lowest 1 and the highest 10 points to 18 criteria. Finally, the research was terminated by asking the participants for various information such as age, gender, education level, title, time spent in the institution, football team, favourite magazines, and ad campaigns they liked (Dörtok, 2004: 327-328)

Another model used in Turkey to measure corporate reputation is the Turkey Reputation Index. Since 2011, Turkey Reputation Index has been calculated by X-Sight research company. This index aims to determine the factors that create the reputation in Turkey, compare the reputation of sectors, measure how the companies are positioned relative to other companies or in general and establish a reference source in corporate reputation management. In 2011, when the survey was conducted for the first time, index points were generated, and the importance and achievements of reputation parameters were determined for the 12 sectors, including white goods, electronics, GSM and telecom, food, energy, soft drinks, construction, textile, holding, banking, insurance, and retail. A questionnaire was applied to 2054 people to determine their reputation points and perceptions across the country and sector. Xsights' X-Reputation Model consists of eight independent steps, similar to Maslow's needs hierarchy (Göker et al., 2017; Türkiye İtibar Endeksi, 2012). The details are shown in Figure 7 and below (Türkiye İibar Endeksi, 2012).

Figure 7: X-Reputation Model



Source: Türkiye İtibar İndeksi, 2012

- Recognition: Every relationship begins with recognition.
- Admiration: Next step after the recognition is admiration. Whether the organization is liked or not is one of the cornerstones of reputation among commercial and social stakeholders.
- Trust: Trust in the institution is important in the post-crisis economy. The highlight of the X-Rep model is that it measures confidence as a dimension in itself. Trust is now multidimensional and of great importance in our globalized economy.
- Relation/Purchase: The public's tendency to purchase reputable, accepted Companies' products and services are measured. The ratio of those who enter an exchange with the institution is one of the first measures of efficiency taken from the communication strategy.
- Satisfaction: The attitudes of the reputable, accepted company's products and services to the customers are measured. The satisfaction of those who contact the organization undoubtedly plays a major role in reputation management.
- Recommendation: The ratio of those who come into contact with the company and those who recommend the company when asked for an opinion is an important indicator of reputation and an indispensable strategy for profitability. The

tendency of the customers of the reputable company to be recommended to potential customers is measured.

- Embassy: Refers to the proportion of those who contact the organization and recommend the company, even if the opinion is not asked.
- Symphatization: This is the ratio of those who can accept to work voluntarily for the organization and contribute to the organization's development without waiting for benefit. It measures how stakeholders establish an emotional bond without expecting a response.

2.4. LITERATURE REVIEW

The pressure and expectations from stakeholders in today's volatile business environment have prompted organizations to assess and manage their reputations to establish positive relationships with stakeholders. Due to its ability to improve businesses' long-term competitive advantages in the marketplace, corporate reputation is an intangible asset (Boyd et al., 2010; Friedman, 2009). Additionally, it has evolved into one of the key factors in determining a corporation's value (Beheshtifar and Korouki, 2013). As a result, scholars and practitioners have been increasingly interested in the corporate reputation concept (Chettamronchai, 2010; Shamma, 2012; Logsdon and Wood, 2002).

When the corporate reputation literature is examined, it can be seen that studies are focused on reputation definitions, determinants, and measurements in corporate reputation and the consequences of corporate reputation. Therefore, these three main focuses are discussed in this part in detail.

2.4.1. Definitions for Corporate Reputation

A variety of cross-disciplinary approaches that have been adopted may also contribute to the ambiguity in the definition of the notion of corporate reputation. These disciplines include organizational behavior, marketing, strategy, sociology, accounting, and economics (Fombrun and Rindova, 1996). This diversity of viewpoints has caused confusion and the misconception that a company's actions and

behavior are the only factors that affect its reputation (Balmer, 1998), as opposed to the messages that the company conveys through its actions and behavior, including its values and accomplishments and how its various stakeholder segments view these.

The definitions of corporate reputation reflect a range of attributes. According to the definitions, corporate reputation has been seen as one dimension of the corporate image (Barich and Kotler, 1991), or it has been seen alternatively as being synonymous with the image (Greyser, 1999). Dowling (1993) shared the viewpoint of Dutton et al. (1994), who saw it as indicating how outsiders see a company's image, that it is also synonymous with image, but qualified this evaluation by saying that it represents a company's overall impression. Fombrun and Shanley (1990), who consider corporate reputation as an output measure of corporate performance, and later Caruana (1997) both put out the notion that it is connected to an assessment of a company's performance. According to Schultz et al. (2000), the definition of corporate reputation has evolved from being an indicator of a company's success to becoming a strategic construct. The concept of corporate reputation as a strategic construct requiring long-term monitoring and control was later added by Gotsi and Wilson (2001). Some have qualified this concept by citing an evaluation of particular stakeholder groups, which may stretch across time and not only be a snapshot at any given time (Carter and Deephouse, 1999; Bromley, 2001).

Numerous articles that have been published have examined various conceptualizations and definitions of reputation. For example, Barnett et al. (2006) analyzed and evaluated definitional statements about corporate reputation between 2000-2003. The authors determined three meaning clusters in the definitional statements: reputation as a state of awareness, reputation as an assessment, and reputation as an asset. According to the awareness cluster, reputation is the representation of knowledge or emotions since these indicate an awareness of the firm. The assessment cluster includes the definitions that refer to a term or used language indicating that observers or stakeholders were involved in an assessment of the status of a firm. And finally, the asset cluster indicates definitions that refer to reputation as something of value and significance to the firm. This group references the term as a resource or intangible, financial or economic asset. Also, Walker (2010) conducted a systematic literature review related to the definition of corporate reputation and

revealed that “reputation may have different dimensions and is issue specific, and different stakeholder groups may have different perceptions of corporate reputations”. Moreover, Lange et al. (2011) reviewed the different definitions of reputation and suggested three main conceptual dimensions: being known, being known for something, and generalized favourability. These dimensions are neither discrete nor exclusive of one another. Definitions can include one or more of the three dimensions or all three.

2.4.2. Determinants and Measurements in Corporate Reputation

Reputation rankings have increased in importance in the business sector due to reputation’s growing significance in recent decades as a valuable asset that can be managed. The rankings, also known as indexes or indicators of reputation measurement, are frequently released yearly and associated with consulting businesses and the media. The business world acknowledges them as instruments that affect strategic planning. However, there are some disagreements in these corporate reputation rankings, which are summarized below (Ferruz González, 2020: 339-340):

- Differences should be taken into account while determining the universe of companies,
- Definition of several assessing audiences (informed/uninformed) and various methods for weighing their viewpoints relative to the whole,
- Comparable audiences evaluating various aspects,
- There is not a regular examination of the evaluation criteria (dimensions and qualities) to see how well they measure corporate reputation,
- The absence of online discussion or communication investment variables as additional indications for contrasting audience attitudes and the weight of those viewpoints,
- A general lack of methodology rigour was brought on by a lack of transparency in the measuring and weighting procedures.

As a result, several research studies have been conducted in recent years on measuring reputation in the academic sense. In order to determine the underlying currents of thought for conceptualizing and measuring the relationship between a

company and its stakeholders, Berens and van Riel (2004) conducted a thorough review of the academic literature on reputation measurement and compared 75 studies carried out between 1958 and 2004. Based on three key principles, they were able to identify three primary currents of thinking and assess reputation (approximately 60% of people identified with one of these currents): 1) The social expectations that people have of businesses; 2) The many corporate personalities that people assign to companies, and 3) The degree of trust or mistrust that people have for a particular company. The most prevalent stream of thought in the literature examined (within which the majority of the present rankings would fall) was the measurement of social expectations.

Additionally, several studies have created various measures to measure corporate reputation. For example, Newell and Goldsmith (2001) developed a corporate credibility scale. The fact that credibility is a component of the larger concept of trust and that this procedure occurs in any case when it comes to corporate reputation makes this scale relevant even though it does not directly measure corporate reputation. As a result, this scale measures a sub-process of reputation that is also crucial for its establishment. Also, Cravens et al. (2003) developed a reputation scale. According to the authors, a company's reputation must be evaluated by an impartial organization that confirms whether the company satisfies specific requirements or features that give the company a reputation. These standards have already been established by the company's primary stakeholders (customers, staff, managers, etc.). They are condensed into nine attributes, weighted and evaluated on a scale from 1 to 9.

Similarly, Davies et al. (2004) developed a scale for employees and customers based on the metaphor of personality, or in other words, "how stakeholders distinguish an organization by expressing themselves in terms of human traits". After conducting numerous interviews, focus groups, and surveys of managers, employees, and customers, they concentrate on the emotional connections that interested parties have with the firm and create a scale of 49 questions that characterize 16 elements with 7 factors or features. Also, Helm (2005)'s Reputation Formative Scale includes three distinct versions for each group employees, consumers, and shareholders as well as ten customized elements, or reference attributes, in each form. The scale is used to

quantify rational reputation on two levels: qualities and total measurement. Its uniqueness comes from the fact that it is a formative rather than a reflecting scale. The scale is divided into two levels: the level of the indicators and the level of the global reputation, which is the direct weighted average of the fundamental indicators.

According to Schwaiger's (2004) model of two dimensions of reputation (cognitive and affective), several indexes and assessments can be used to evaluate the influence on corporate reputation. The research showed that the affective component of reputation could be represented as "affinity" toward a firm, while the cognitive component can be described as "competence". Finally, to provide an organization with hints on managing these reputational components, the author identified the primary drivers of each of the two descriptors. In addition, Walsh and Beatty (2007) and afterwards Boshoff (2009) developed the customer-based reputation scale. Walsh and Beatty (2007) developed a 31-item psychometric measurement scale and came to very tentative conclusions concerning the relationship between a company's positive reputation, higher levels of advertisement acceptability, and associations with higher purchase intentions. On the other hand, Boshoff (2009) presented a scale of 17 items with more comprehensive psychometric features to improve Walsh and Beatty's work.

In addition, Highhouse et al. (2009) developed an overall reputation index. Authors view reputation as an intangible resource that manifests as an all-encompassing attitude with three key characteristics: it is an overall assessment, it is accepted by a large enough group of interested parties, and it remains constant through time. Considering these assumptions, they conducted a study with specialists, asking them a series of questions about nine relevant organizations to find those that matched the three theoretical conditions. Relevant details about these mentioned studies are presented in Table 4.

Table 4: Academic Methodologies for Corporate Reputation Measurement

Authors (Year)	Aim	Methodology	Sample	Results
Newell and Goldsmith (2001)	The study aims to create and validate a short, reliable, and valid self-report scale that will be used to measure corporate credibility, or how much customers think a company is knowledgeable and trustworthy.	Data were collected via surveys and confirmatory factor analysis, explatory factor analysis and t-tests were applied.	For first data set 50 undergraduate students, for second dataset 150 undergraduate college students, for third dataset 321 undergraduate university students, for fourth dataset 151 non-student adults and for fifth dataset 122 nn-student adults were conducted.	The scale includes total credibility, expertise, trust, ad credibility, attitude ad, attitude brand, purchase intend, involvement, familiarity variables and two dimensions: expertise and trustworthiness.
Cravens et al. (2003)	The study suggests developing a reputation index to capture important factors, assess various organizational components, and have a broad scope.	The authors suggested corporate reputation variables and weights.	Not available	The index includes products/services, employees (all levels, upper management), external relationships (suppliers, partners, competitors, investors, environment, society), innovation, value creation, financial strength, strategy, culture, and intangible liabilities.
Davies et al. (2004)	The study aims to develop a corporate character scale to evaluate an organization's reputation.	Data were collected via surveys and confirmatory factor analysis and correlation analysis were applied.	The study sample consists of 2061 employees and 2565 customers in 49 different business units of 13 organizations.	According to the results, five major and two minor dimensions of corporate character are identified. These are: Agreeableness (honest, socially responsible); Competence (reliable, ambitious); Enterprise (innovative, daring); Ruthlessness (arrogant, controlling); Chic (stylish, exclusive); Informality (easy going) and Machismo (tough).

Authors (Year)	Aim	Methodology	Sample	Results
Schwaiger (2004)	The study aims to develop a theoretically and empirically suitable scale for measuring corporate reputation.	Literature review, interviews, and survey methods were used for the study.	Interviews were conducted with 40 people and survey was administered to 300 respondents survey was administered to 300 respondents.	Likeability, competence, quality, performance, responsibility, and attractiveness are the main drivers of corporate reputation measurement model.
Helm (2005)	The study aims to develop a formative approach to measuring reputation.	Interviews and survey methods were used for the study.	Interviews were conducted with 40 people, and the survey was administered to 952 consumers.	Indicators of the formative measurement model for reputation are quality of products, commitment to protecting the environment, corporate success, treatment of employees, customer orientation, commitment to charitable and social issues, value for money of products, financial performance, qualification of management, and credibility of advertising claims.
Walsh and Betty (2007)	The study aims to identify dimensions of customer-based corporate reputation, develop scales to measure these dimensions, and validate this measurement.	Interviews and survey methods were used for the study.	48 in-depth interviews were conducted with German students majoring in marketing (n=30) and non-students (n=18). The scale refinement survey was administered to 504 respondents, and the scale validation survey was administered to 698 respondents.	Customer-based reputation scale includes customer orientation, good employer, reliable and financially strong company, product and service quality, and social and environmental responsibility dimensions.

Authors (Year)	Aim	Methodology	Sample	Results
Boshoff (2009)	The main goal of this study was to conduct psychometric testing on a tool that Walsh and Beatty (2007) suggested be used to measure a service company's reputation among customers.	A survey method was used for the study.	For exploratory factor analysis, data was collected from 340 students. For cross-validation, data was collected from 167 respondents who are clients of several banks.	Customer orientation, employee relations, reliable and strong company, quality products and services, and social responsibility are the main drivers of the corporate reputation measurement model. The result is a 17-item test that is shorter than the previous 31-item questionnaire and has better psychometric qualities.
Highhouse et al. (2009)	The main goal of this study was to examine reputation judgments about corporations within contemporary theory. The authors did not introduce a new measurement model but investigated whether reputation judgments are generalizable and, if not, how to make them more so.	A survey method was used for the study.	The sample of the study consists of 86 university professors of inance, marketing, and human resources management.	Employer image, market image, financial image and global reputation (This company has an excellent reputation, This company is widely admired and respected, and This company is among the best) are the main drivers of the corporate reputation measurement model.

Source: Prepared by Author

When the relevant literature is examined, in addition to the models developed to measure corporate reputation, reputation measurement models containing sector-specific dimensions are also seen. For example, some studies suggest specific models for measuring corporate reputation in the banking sector. Chen and Chen (2009) measured the corporate reputation of the top five privately run banks in Taiwan with the ten indices, which are foresight ability, innovative ability, human resource fostering, customer orientation, operational performance, financial performance, technology utilization, the ability of international operation, long-term investment value and corporate citizen responsibility. Also, Trotta and Cavallaro (2012) aimed to propose a reputational framework suitable for assessing the reputation of Italian banks. At the end of the study, the authors suggested a Five "R's" Model for measuring corporate reputation. This model includes five key dimensions and items for dimensions which are Role (Mission and Vision, Leadership, Governance), Responsibility (CSR Policy, Ethical Behaviour, Workplace Environment), Relationship (Informative Transparency with Stakeholders, Disclosure, Trust & Confidence), Results (Product & Services, Financial Performance), and Regulatory Compliance (Risk Management, Antitrust, Compliant's Management, Anti Money Laundering Policy). Moreover, El-Chaarani and El-Abiad (2020) investigated the determinants of the reputation of the Lebanese banking sector during the crises. They measured the reputation with customer care, integrity, quality of offer, innovation, employer branding, leadership, social action, reliability and financial strength, trust, and satisfaction.

In addition, many studies in the literature include reputation measurements for the education sector. For instance, Oplatka and Nupar (2012) explored the components and determinants of school reputation. The authors determined that school reputation is the sum of parents' perceptions of six aspects: academic achievement, quality of the students, special attention to students, school violence and discipline, degree of satisfaction with the school, and quality of the teaching staff. Similarly, Verčič et al. (2016) explored the academic organization's reputation among various stakeholder groups with the performance, services, products, leadership, governance, workplace climate, citizenship, innovation, and additional items which are international renown,

fight against corruption, trust, well representing in public, prestige and world level knowledge.

Furthermore, many scale development studies for reputation measurement specific to various sectors can be found in the relevant literature. For example, Sarstedt and Schloderer (2010) tried to develop a model for measuring and explaining non-profit organizations' reputations. The main dimensions of their model were likeability, competence, quality, performance, osr (organizational social responsibility), attractiveness, and outcomes. Also, Dutot and Castellano (2015) designed a measurement scale for e-reputation. Their study showed that e-reputation should be measured by four main dimensions: brand characteristics, website quality, service quality, and social media. In addition, Tieman (2019) tried to create a corporate halal reputation index in his study. The author suggested that halal authenticity, the trustworthiness of the halal certification body, messages by company and supply chain partners, messages by external stakeholders, and the moderating variables category of Islamic brand and sensitivity of product are expected to determine the corporate halal reputation. Moreover, Overman et al. (2020) developed a multidimensional reputation scale for public agencies, which includes performative, moral, technical, and legal-procedural dimensions.

2.4.3. Consequences of Corporate Reputation

There is broad agreement in the literature about the significance of reputation. Reputation contributes to developing sustainable competitive advantage and creating long-range relationships with multiple stakeholder groups (Boyd et al., 2010). This topic has been intensively explored and studied throughout the previous two decades in the academic literature (Logsdon and Wood, 2002).

While there is no agreement on the definition of corporate reputation in the literature, it is generally agreed that the advantages of a good reputation provide a company with significant value (Gardberg and Fombrun, 2002; Gotsi and Wilson, 2001; Walsh et al., 2009; Whetten and Mackey, 2002). In Table 5, some advantages of having a good reputation are listed.

Table 5: The Benefits of a Good Reputation

The Benefits of a Good Reputation	References
A reduced uncertainty faced by stakeholders in evaluating firms as potential suppliers of needed products and services	Fombrun, 1996; Rindova et al., 2005
Encourages stakeholder patronage, support, and increased purchases	Casalo et al., 2007
Firms with a strong reputation are more easily forgiven by their stakeholders when they transgress	Dowling, 2006
Companies can take premium charges for goods and services	Houser and Wooders, 2006; Rindova et al., 2005
The positive relationship between corporate reputation and financial performance	Eberl and Schwaiger, 2005; Rindova et al., 2005; Roberts and Dowling, 2002
The reduced transaction, capital and personnel costs for the company	Eberl and Schwaiger, 2005
An asset that is hard to imitate	Argenti and Druckenmiller, 2004; Boyd et al., 2010; Fombrun and van Riel, 2004; Gray and Balmer, 1998; Shamsie, 2003, Friedman, 2009
Provides a sustainable competitive advantage	Boyd et al., 2010; Ponzi et al., 2011; Roberts and Dowling, 2002; Shamsie, 2003
Facilitates brand extensions	Hem et al., 2003
Encourages website commitment	Casalo et al., 2007
Allows companies to exploit information imbalances in their marketplace	Shamsie, 2003
Influences creditor and investor decisions	Fombrun, 1996
Influences potential employees' decisions regarding the companies for whom they wish to work	Gatewood, 1993; Fombrun, 1996

Source: Extended from Tromp, 2012: 2

Given all these advantages, corporate reputation can be acknowledged as a critical factor influencing a company's performance and long-term sustainability. As a result, the relationship between corporate reputation and performance has been extensively studied in the literature. According to a semi-systematic literature review conducted by Ayaz and Sigalı (2022), firm reputation and performance relationship studies can be categorized as financial performance, organizational performance, marketing performance, and sustainability performance dimensions.

Financial performance is used by analysts and investors to make investment decisions and to compare similar companies in the same industry. A company's reputation, which results from stakeholders' perceptions of the business, can be shaped by some potential investors. It mainly depends on a business's successful outcomes, particularly under challenging conditions (Cocis et al., 2021). As a result, research on

the connection between reputation and financial performance has been done regularly in the relevant literature. When the reputation-financial performance studies are reviewed, it can be seen that they mainly concentrate on IPO performance, venture capital performance, CEO and board characteristics, revenue, and earnings quality. In terms of reputation variables and financial performance parameters, Fortune Reputation Index, ROS (return on sales), ROE (return on equity), ROA (return on assets), firm size, asset growth, operating income growth, and sales growth were frequently used variables (Ayaz and Sigalı, 2022: 212).

Achieving integrative economic, environmental, and social goals is ensured through sustainable performance in business. In order to survive and function well over the long run, a firm must have a strong corporate reputation. In this context, the relationship between reputation and sustainability performance is crucial in the relevant research (Çankaya and Sezen, 2019; Javed et al., 2020). When the reputation-sustainability performance studies are analyzed, it becomes apparent that there are studies that solely address the social or environmental pillars of sustainability, in addition to studies that deal with sustainability as a whole and its three pillars. In the relevant studies, reputation and social performance studies also play a big part. It has been observed that research on corporate reputation and social responsibility is conducted in tandem. It has been seen from a methodological perspective that disclosure analysis, structural equation modeling, and questionnaires are widely employed (Ayaz and Sigalı, 2022: 214).

Reputation-marketing performance studies are also critical in the relevant literature because reputation is the company's recognition earned by showing goodness and capabilities. Companies will continue to improve themselves and create new products to meet consumers' needs and expectations (Balmer and Gray, 2003; Herbig and Milewicz, 1993; Resnick, 2004). When the reputation-marketing performance studies are examined, it is observed that brand performance, service performance, and customer performance are the principal subfields of this research area (Ayaz and Sigalı, 2022: 215). Lastly, reputation and organizational performance relationship is another vital part of the relevant literature under the organizational support, organizational behaviour and organizational efficiency concepts. Table 6 shows some reputation-performance studies with details.

Table 6: Reputation and Performance Relationship Studies

Authors (Year)	Aim	Methodology	Reputation Variables	Results	Reputation-Performance Dimension
Krueger and Wrolstad, 2016	Examine the importance of reputation to investors seeking to enhance their risk-adjusted rates of return on their investment portfolios.	Pairwise t-tests and the estimated risk-adjusted return measure were used.	Reputation was measured by the RQ (Emotional appeal, Products and services, Vision and leadership, Workplace environment, Social and environmental responsibility, and Financial performance.	Past share price performance was unrelated to the company's reputation. However, reputation does appear to provide insight into future firm performance. Firms with the worst reputations often have trouble providing a return sufficient to cover risk, especially in the absence of dividends.	Financial Performance
Fernández-Gámez et al., 2019	Examine the association between Corporate Reputation and earnings quality of the firms operating in a European market.	Regression Analysis	Metrics published by the Reputation Institute for Spain are used, which include Products/Services, Innovation, Workplace, Citizenship, Governance, Leadership, and Performance dimensions.	Firms with a higher Corporate Reputation also have a superior earnings quality, and that earnings quality is inversely associated with firm size.	Financial Performance
Cocis et al., 2021	Examine how investors perceive corporate reputation through several airline companies' financial performance and equilibrium.	TOPSIS	Fortune Rankings	Companies with good financial performance and equilibrium has a good corporate reputation. The proposed TOPSIS annual ranking of three airline companies was similar to their Fortune ranking.	Financial Performance

Authors (Year)	Aim	Methodology	Reputation Variables	Results	Reputation-Performance Dimension
Alon and Vidovic, 2015	Examine the relationships between sustainability performance, assurance of disclosure, and reputation for sustainability.	Structural Equation Modelling (SEM)	For sustainability reputation, the Sustainability Perception Score from the 2011 Sustainability Leadership Report was used. The survey includes questions related to their perceptions of companies' performance regarding environmental, social, and governance factors,	Superior sustainability performance has a positive association with sustainability reputation. Companies with better performance are more likely to obtain external assurance of their sustainability disclosure, but assurance does not directly affect reputation.	Sustainability Performance
Khanifah et al., 2020	Analyze the empirical evidence about the effect of environmental performance on firm value mediated by firm reputation in emerging countries.	Partial Least Squares Based Structural Equation Modeling (SEM)	A firm reputation is measured by the number of awards the firm receives in the observation period (2015-2018).	Environmental performance has a positive and significant effect on a firm reputation. However, the environmental performance has a negative and significant effect on firm value.	Sustainability Performance
Nardella et al., 2020	Examine the relationship between corporate irresponsibility, corporate social performance, and changes in organizational reputation.	Multiple Linear Regression Analysis	Fortune Magazine's World's Most Admired Companies (WMAC) reputation ratings across eight annual surveys – from 2005 until 2012 was used.	Firms perceived as least socially responsible were more likely to suffer reputation penalties when accused of irresponsibility without their culpability established through litigation.	Sustainability Performance

Authors (Year)	Aim	Methodology	Reputation Variables	Results	Reputation-Performance Dimension
Fauzan et al., 2019	Investigate the impact of seller reputation on the number of sales in the context of the Indonesian market.	Multiple Regression Analysis	An indicator of a seller's reputation is its popularity. The number of seller followers indicates that many customers show interest in this particular seller.	The number of seller's followers does not affect sales number. Furthermore, price and seller positive reviews significantly impact sales performance.	Marketing Performance
Kucharska, 2020	To examine if and how employee brand commitment moderates the influence of reputation CSR practice on corporate brand performance.	Structural Equation Modeling and Regression Analysis	Customers' overall positive perception of the company's total experience, future customers' claim that a company is doing well, and customers' perception about a company is better than others.	There is a strong alignment of an excellent level of all three: CSR practice, corporate brand reputation, and employee brand commitment. Also, a lack of employee brand commitment may endanger reputation.	Marketing Performance
Moghaddam et al., 2020	Investigate the effect of an internal reputation of the firm on two understudied outcomes: (1) CEO retention and (2) firm market performance.	OLS Regression Analysis	The Fortune 100 Best Companies to Work for (BCTWF) list was used for reputation measurement.	A high-quality internal reputation is positively related to CEO retention. In addition, a positive internal reputation is associated with higher firm market performance not only in the short-term but also in the midterm and long-term.	Marketing Performance

Authors (Year)	Aim	Methodology	Reputation Variables	Results	Reputation-Performance Dimension
Yang and Gruning, 2005	Propose a theoretical model in which organization-public relationship outcomes affect an organization's reputation and evaluate organizational performance.	Structural Equation Modelling (SEM)	Cognitive representations of an organization (how public members conceptualize an organization in their minds) were used to measure the organizational reputation. Answers of Korean residents to open-end questions were coded with the number one indicating “negative”, two “neutral” and three “positive”.	Organization-public relationship outcomes had a far stronger effect on overall performance evaluations than organizational reputation. Organization-public relationship outcomes influenced organizational reputations significantly across varying types of organizations studied	Organizational Performance
Graca and Arnaldo, 2016	Investigate corporate reputation's role on co-operant behavior and organizational performance in co-operative organizations.	Structural Equation Modelling (SEM	The corporate reputation scale includes 28 items and five sub-scales: customer orientation, good employer, reliable and financially strong company, product and service quality, and social and environmental responsibility.	Results show that corporate reputation, in four dimensions used, namely reliable and financially strong company, product and service quality, environmental responsibility, and customer orientation, affect the firm’s performance. Also, culture could predict corporate reputation.	Organizational Performance

Source: Prepared by Author

CHAPTER THREE
CORPORATE REPUTATION AND CONTAINER PORTS

Ports, which form the backbone of maritime transport, formed the basis of international trade throughout history and contributed to global economic growth, fulfilling an essential function in the development of industry and trade. With the developing new technologies and increased world trade, the port industry has become a more complex industrial organization.

This chapter first defines the terms associated with the concept of port and how the concept has changed over time to highlight the ports' main characteristics. After that impact of macro-environmental changes on ports was discussed. Lastly, this chapter provides information on port service, port performance, operations in container terminals, and the importance of corporate reputation in container ports.

3.1. PORT AND TERMINAL CONCEPT

Since it is impossible to make a general definition of "port" covering all the features of each port, there are various definitions of the port concept in the literature. This situation results from the shifts in roles that ports have undergone over history and changes in management philosophies. Based on this premise, it is first possible to argue that the idea of a port is dynamic in character and open to evolution because changes influence its functions in both the general state of global trade and the business environment in which it is located (Stopford, 2009: 81).

Ports can be defined in many different ways in terms of their traditional functions. In the traditional understanding of the notion, ports are primarily described as the geographical interfaces that can move cargo or passengers between ships and the shore (Alderton, 1995). In a similar definition, in general, ports are the points where cargo and passengers are transferred from land to ship or from ship to land (Talley, 2012: 473). Stopford (2009: 81) provides the following definition of a port from a geographic perspective and with an emphasis on the typical functions of ports:

"A port is a geographical area where ships are brought alongside land to load and discharge cargo-usually a sheltered deep water area such as a bay or river mouth"

Emphasizing trade and economic perspective, Musso et al. (2006: 172) make another definition of ports as follows:

"The port may be considered a public service that is generally useful to the economy, justifying the tax system being utilised for the purpose of funding the investments required. The port may be considered a business system that operates within a highly competitive market and requires investment projects to be selected with efficiency."

Branch (2007) offers a different definition of ports that emphasizes their function in the transportation networks as follows:

"The seaport is the link in the transport chain with a strong interface with other modes of transport services to provide a door-to-door service with customs examination undertaken at the consignor/consignee premises or at the nearby container freight station/dry port/freight village/free trade zone"

Recently, ports have started to be fully integrated into the supply chain. Developing a definition that covers all the services that ports provide today will complicate the concept of the port. On the other hand, it would be more appropriate to highlight the basic functions of ports while defining the concept of the port. Accordingly, ports are coastal facilities where ships call, unload or load new cargoes and provide logistics services to related cargoes (Esmer, 2019: 3).

While ports have many functions that are very important to increase the efficiency of ships, the main function of ports is to provide a safe place for ships. Another function of ports, which is as important as its main function, is the cargo handling function, which is one of the key elements in system design (Stopford, 2009: 81). With the effect of globalization, ports have continued to grow by placing them on these two main functions. From a public policy point of view, ports are seen as critical trade and transportation infrastructure facilities and even as an accelerator of economy and development in the region or country they serve (Bichou, 2009: 32). Esmer (2019: 9), stated that apart from the main functions of ports, they have functions such as providing support services such as providing food, clean water, fuel, spare parts to ships, causing industrial mobility in their region, and being the meeting point of transportation modes in the supply chain. The main functions of ports can be listed as follows (Esmer and Karataş-Çetin, 2013: 380):

- To provide a safe accommodation service for ships,
- Fulfilling the requirements for coastal operations (approach channel, sufficient depth at the berths),
- To provide handling services of cargo and passengers,
- To provide storage services for the cargoes in the port area,
- To provide support services for ships (providing food, clean water, fuel, spare parts, etc.)
- To be a base that promotes trade and industrial development,
- Integrating maritime transport into land transport modes,
- Integration with transportation networks,
- To ensure that the hinterland area is open to international traffic,
- To provide transit transport activities for remote areas and neighboring countries that do not have access to the sea.

It is difficult to say that every port provides all these functions mentioned above. At this point, ports differ according to criteria such as the scope of service they provide, the region they are located in, their management styles, organizational structures, and their logistics role. In this sense, Bichou (2009) categorized the port types so that the details can be seen in Table 7.

Table 7: Different Classification of Ports

Criterion	Port Category
Cargo/ Commodity Type	Dry Bulk Port, Liquid Bulk Port, General Cargo Port, etc.
Ship Type	Ferry Port, Ro-Ro Port, Multipurpose Port, LNG Port, etc.
Trade Type	Import Port, Export Port, Transhipment Port, Transit Port, etc.
Institutional Model	Landlord Port, Tool Port, Service Port, etc.
Ownership Model	Private Port, Public Port, Semi-Public Port, etc.
Management Model	Trust Port, Corporatised Port, Autonomous Port, etc.
Organizational Model	Centralised Port, Decentralised Port, Devolved Port, etc.
Geographical Scope	Gateway Port, Local Port, Coastal Port, Inland Port, etc.
Logistics Status	Feeder Port, Hub Port, Transhipment Port, Network Port, etc.

Source: Bichou, 2009: 11

Some of the port types stated in the table have lost their function today, and some need to be re-expressed under different categories. In order to classify today's

port types more simply, a classification such as the following would be more appropriate (Esmer and Karataş-Çetin, 2013: 381):

- Ports by field of activity: Ports serving local traffic, Ports serving national traffic, Ports serving regional traffic, and Ports serving intercontinental traffic.
- Ports by cargo type: Multi-purpose ports, Container ports, Dry bulk ports, Ro-Ro ports, liquid bulk ports, and General cargo ports.
- Ports by ownership structure: Private ports, Public-Private ports, and Public ports.
- Ports by their service: Hub port, Feeder port, Transhipment Port, Call port.

In this study, since it is desired to examine the determinants of corporate reputation in container ports/terminals, it would be appropriate to explain the terminal concept and types in detail according to the cargo types. For this, it is necessary to explain the terminal concept first. Because if the ports are specialized in handling a single type of cargo, in other words, if they have a single terminal, they are referred to by the name of the type of cargo they are handling. The terminal concept refers to each port facility that handles a certain cargo (For example: container terminal, passenger terminal, etc.). Ports can have multiple terminals, or they can have a single terminal. Ports with a single terminal are named after that terminal (For example: container port, passenger port, etc.). There are six different terminals in the ports: passenger terminal, liquid bulk terminal, ro-ro terminal, dry bulk terminal, container terminal, and general cargo terminal (Esmer, 2019: 83). These terminals/ports can be described in detail as follows (Esmer, 2019: 83-84):

- Liquid bulk ports/terminals: These ports, also known as tank ports, are facilities where ships carrying liquid bulk cargoes are unloaded or loaded. In these ports, where chemical cargoes such as crude oil, LPG (Liquefied Petroleum Gas), and LNG (Liquefied Natural Gas) are handled, cargoes are generally classified as dangerous goods, and therefore safety precautions are high.
- Dry bulk ports/terminals: Ports where major or minor bulk cargoes are loaded with the help of a quay crane, or conveyor, rarely ships their own cranes.

- General cargo ports/terminals: Just like in dry cargo ports, cargoes are handled by quay cranes or the ships' own cranes; in these ports, a wide variety of cargoes (break bulk, special cargoes) are loaded and unloaded.
- Container terminals/ports: Facilities designed only to handle container loads. Containers taken from container ships with the help of quay cranes or mobile cranes are transferred to warehouses via rail systems or terminal vehicles.
- Ro-ro terminals/ports: These are the ports that serve RO-RO ships with a system that allows wheeled vehicles to enter and exit. The cargoes of these ports are vehicles such as trucks, commercial vehicles, construction equipment and automobiles. These cargoes are kept in the port area for a while after they are unloaded from the ship or before they are loaded onto the ship. For this reason, these ports need to have a large area in terms of competitive advantage.
- Passenger terminals/ports: In these ports, which serve cruise ships, passengers get off or board the ship by their own means. Dock equipment is very limited in these facilities, which have large parking areas and waiting rooms.

3.2. PORT USERS AND STAKEHOLDERS

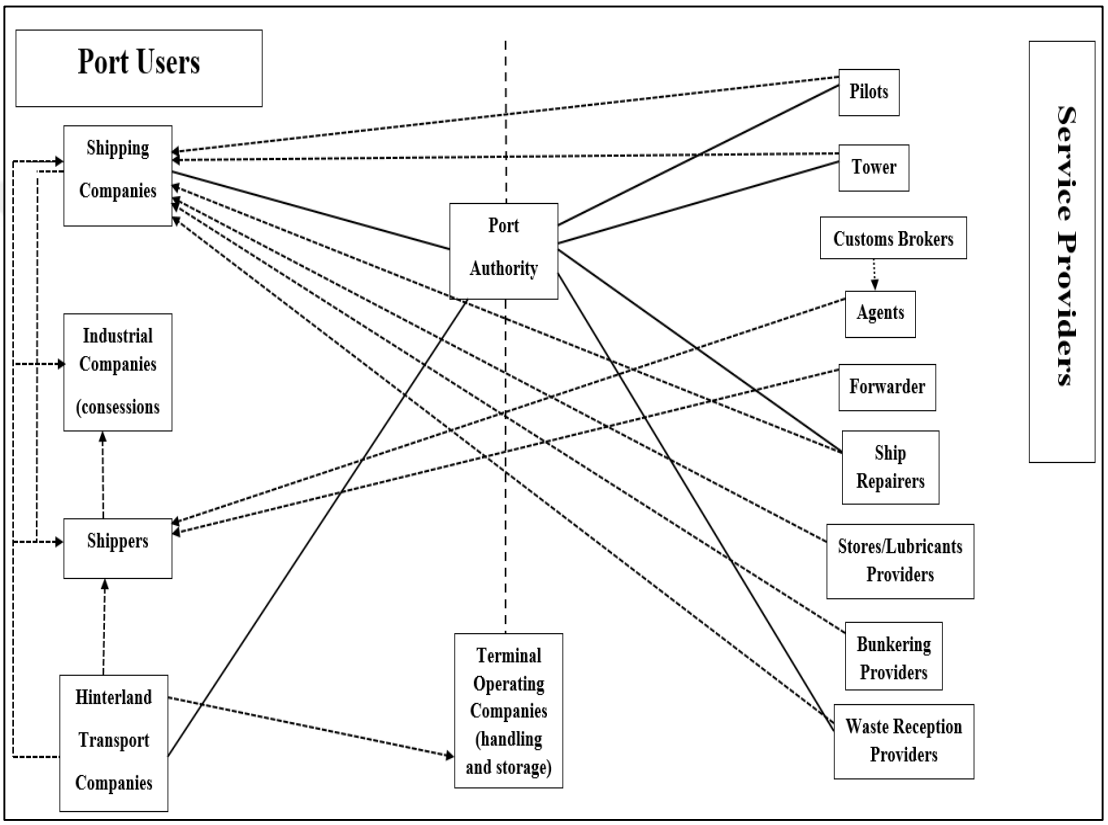
There are many different actors operating within the port operations. The main market participants involved in port activities (shipping companies, port authorities, stevedores, and inland transport modes) are a heterogeneous group. They each seem to have different goals, particular means at their disposal, and a different effect on the port business (Heaver et al., 2000: 367).

According to the Martin and Thomas (2001: 280), The term "port community" refers to a group of important commercial enterprises whose combined services enable ports to shift goods between inland and maritime transport modes. A port community is made up mostly of the following five organizational types:

- providers of port infrastructure and facilities,
- providers of cargo handling services,
- maritime transport operators,
- inland transport operators, and
- representatives of the cargo.

When the distinction of Martin and Thomas (2001:280) is examined, it is seen that the members of the port community mostly include port users. However, Meersman et al., (2009:92) examine these parties in two groups: port users and port service providers. Figure 8 shows the actors and their relations in the port industry.

Figure 8: Port Actors and their Relations



Source: Meersman et al., 2009: 93

As shown in Figure 8, the port authority is in the centre. First and foremost among port users are the shipping firms. Shippers and industrial businesses with concessions on land that are situated inside the port perimeter are examples of additional port plaintiffs. The service providers include a diverse group that includes agents, forwarders, ship repairers, suppliers of food and spare parts, waste reception facilities, pilotage and towage services, and bunkering companies. The stevedores are an exception; they are moving more and more in the direction of terminal operating

firms. They obtain remuneration for the services (transshipment, storage, stripping, and stuffing) that they render to transportation firms and shippers. They also pay a concession charge to the port authority. Links with the port authority (in terms of concessions or operating permissions) are denoted by full lines, while links between parties without the port authority are denoted by dotted arrows.

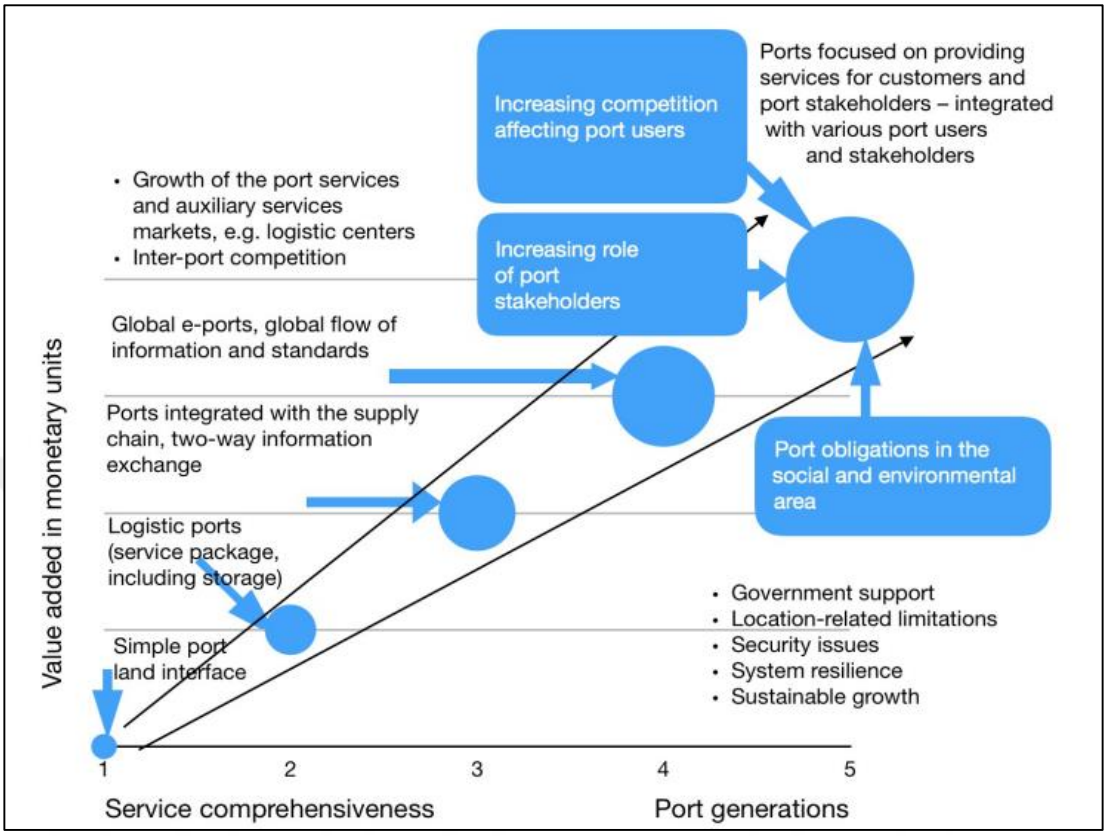
However, various collaborations and structural changes exist between the parties operating in the port today. It is often seen that a shipping line is also a terminal operator. In addition, the increase in the permissions given by the state for the private sector to perform operational services such as cargo handling in the port is one of the determinants of these changes.

3.3. PORT GENERATIONS

While ports were previously labour-intensive economic systems, with industrialization, their functions were changed to manufacturing areas to reduce transportation costs. In the 19th and 20th centuries, ports became centers of industrial growth and needed larger areas, more specialized equipment and more raw materials (Musso, 2009: 55).

UNCTAD (1994) developed the idea of port generations to draw attention to the significant distinctions between ports of today and those of the past. Three things served as the foundation for generational differentiation: (i) port development policy, strategy, and attitude; (ii) port activity scope and extension; and (iii) the integration of port activity and organization. Many other factors such as port size, geographical location, and management type were not considered in the classification of port generations. The fourth generation ports were reintroduced by UNCTAD later in 1999, and Flynn and Lee first used the fifth generation ports in 2010. Figure 9 shows the evaluation of five port generations.

Figure 9: The Evaluation of Five Port Generations



Source: Kaliszewski, 2018: 17

"Business Organization in Ports" WORKPORT (1998-1999), which criticizes the "port generations" study conducted by UNCTAD (1992) on the subject of ports gaining new features in certain periods and passing to a new generation and prepared under the leadership of Aristotle University in Thessaloniki within the scope of the 4th Research Framework Transport Program of the European Commission.) study shows that ports change continuously, not step by step in certain periods, in adapting to new technologies and regulations and in business practices (Beresford et al., 2004: 93). This study argues that the changes in the ports are not revolutionary and periodic, but continuous and evolutionary changes are experienced in the ports. Likewise, in the study of Pettit and Beresford (2009: 253), in which they examine the change in the supply chain of ports, they argue that ports have experienced an evolutionary development in terms of logistics.

However, it provides helpful insights into the dynamic character of port management philosophy and the paradigm shifts that have taken place in ports' duties throughout recent history. Therefore, each of these generations will be covered in the following sections to give better insights into the general characteristics of the port development.

3.3.1. The First Generation Port

Until the 1960s, the main activities of the ports, which provided connection as a transit point between land and sea transportation, consisted only of cargo handling and storage services. At that time, it was believed that only investing in port facilities would be sufficient, as it was accepted that the most important functions of ports were loading and unloading, storage services and navigational assistance. For these reasons, it can be said that the investment in transportation technologies in first-generation ports is neglected (UNESCAP, 2002: 20; Alderton, 2008: 80).

3.3.2. The Second Generation Port

Ports in this group are defined as "transport, industrial and commercial service centres" with a wide range of activities. The activities in these ports include packaging, labelling and physical distribution, which are commercial activities that add value to the cargoes (UNESCAP, 2002: 20). Industrial activity areas were built in the hinterland areas. Another feature of second generation ports is the close relations between ports and trade and transportation businesses and between ports and municipalities (Alderton, 2008: 80; Beresford et al., 2004: 94).

Organizational variations existed in comparison to the first generation ports. Second generation ports served as the residence for the privileged port customers' cargo transformation facilities due to their characteristics as industrial zones. Ports and their users started developing relationships, despite being straightforward and simple. However, because it frequently occurred spontaneously rather than in an organized manner, the integration between ports and their users was not yet entirely established.

Nevertheless, compared to the first generation ports, the productivity of the operations had seen significant advances (UNCTAD, 1994).

3.3.3. The Third Generation Port

Third generation ports are a product of containerization and intermodal transportation, thus globalization. In the 1980s, ports became dynamic nodes in the international production/distribution network. The development of intermodal transport has led to changes in the basic functions of ports (Hayuth, 1987:60). The concept of door-to-door has replaced the concept of port-to-port, and additional logistics services have been introduced instead of the traditional functions of ports (Hayuth, 2007:142).

The third generation ports have undergone numerous adjustments from an administrative standpoint. Port documentation was made more efficient by streamlining relevant operations and acquiring technical platforms to carry out smooth information exchange, which was one of the critical issues in earlier port generations. The introduction of EDI (Electronic Data Interchange) was crucial in streamlining the procedure and achieving high efficiency for port documentation. Technology and know-how were significant change agents in the era of third generation ports, stated Bichou and Gray (2004). In addition, the issue of environmental protection has gained more importance, and the relations between the port and the city and port users have been strengthened (Alderton, 2008: 80).

3.3.4. The Fourth Generation Port

Unlike third generation ports, terminalization has been the central concept in the fourth generation port era. Bichou and Gray (2004:50) state that fourth generation ports are joint operators such as global terminal operators or ports that are united under common management but are physically separate. The emergence of multinational terminal operators, who created their terminal networks on a global scale, was a contributing factor to the terminalization process. As a result, the industry's competition was now terminal-to-terminal instead of port-to-port. Terminals began

striving for a competitive edge by better integrating to the logistical nodes (such as dry ports, inland ports, and other seaports) outside their perimeter (Verhoeven, 2010).

Verhoeven (2010: 248) has criticized UNCTAD (1999), which only looks at the fourth generation ports from a spatial perspective and has brought a three-dimensional approach that examines the fourth generation ports from spatial, operational and social perspectives. The details of this approach are shown in Table 8.

Table 8: Three-Dimensional Approach to Fourth Generation Ports

Dimension	Sub-Dimension	Key Features
Operational	Ship-shore operations	Core port services: cargo-handling (loading, unloading, storage), technical-nautical services and ancillary services. Strong focus on containers.
	Value-added logistics	Shift from core to non-core port activities (various paths possible).
	Industrial Activities	Shift from traditional to sustainable industries (e.g. LNG installations, biofuel plants, and so on)
Spatial	Terminalisation	Multinational operators develop networks of terminals under corporate logic. Competitive emphasis shifts to terminal level, extending into the supply chain.
	Port-city separation	Loosening of spatial relationship combined with the weakening of economic and societal ties (although first signs of re-integration initiatives appear-see societal dimension).
	Regionalisation	Network development beyond the port perimeter, involves co-operation with inland ports and dry ports (load centre development) as well as with other seaports in proximity.
Societal	Ecosystems	Seaport is part of a wider (coastal) ecosystem where it has a variety of environmental interactions with the outside.
	Human Factor	Sustainable co-habitation with local communities, focus on avoiding negative (pollution, congestion, etc) and stimulating positive externalities (soft values).

Source: Verhoeven, 2010: 250

Stakeholder management also became increasingly important in the fourth generation ports era. According to Verhoeven (2010), the port authorities' responsibilities throughout the fourth generation of ports went beyond their conventional ones as operators, landlords, and regulators. In other words, during this time, port authorities began to serve as community managers. The duties regarding the effects of ports on the environment were well understood, and the ports implemented regulatory compliance (Flynn et al., 2011). Lastly, according to Paixao and Marlow

(2003:190), two main features of fourth generation ports are “leanness” and “agility”. Leanness is argued as crucial since it allows for the optimization of all operations carried out by the ports, which can reduce costs at the operational level. In regards to agility, the authors claimed that agility as a strategy is also necessary to increase the connections between internal and external business environments.

3.3.5. The Fifth Generation Port

Flynn et al. (2011: 502) identified fifth generation ports as “customer-centric and community focused ports, with service deliverables related to port user’s multi-faceted business requirements, while also taking care of community stakeholder requirements”. The differentiation of the fifth generation ports is shown in Table 9.

Table 9: Differentiation of the Fifth Generation Ports

Items	The 4GP by UNCTAD	The 5GP Proposed by Flynn et al. (2011)
Service Quality	Meeting regulations and general levels of standards	Finding dynamic incentives to perform beyond basic standards
IT	Cargo clearance and tracking	Measures focused on service, security and performance impact. IT is not only based on tracking and tracing but also on event management (anticipation) and performance measurement.
Community Environmental Impact	Regulatory compliance with environmental impact and planning statutes	Active outreach to community in planning and decision-making process
Port Cluster	Handled through land-use planning	Port services provision integral to mission and vision. Port leaders have role as “port cluster managers” contributing to generating value-added.
Maritime Cluster	Treated as separate from port function	Still functionally independent of the port cluster, but creative financial incentives to attract shipowner and cargo by creating jobs and value-added
Logistics Hub	Logistics developed as a back of port function; and Physical Free Trade Zones and Logistics Parks	Logistics seen as part of a maritime logistics chain; Airport interface for high-value added flexibility; and Advanced Free Trade Zone and Logistics Park functions.
Inland	Inland connections develop through natural evolution	Ports develop hinterland strategies through pricing and incentive policies ensuring that evolution does not disadvantage interest of cargo owners.
Waterside	Port marketing as two dimensional price and quantity approach	Ports developing foreland strategies through pricing and other incentive policies

Source: Flynn et al., 2011: 503

The authors suggested that fifth generation ports must be attentive to changing shipping and port environments, inter-port competition, and its customers' needs as well as the interests of the local community. Regarding security concerns and domestic and international legislation, the dynamics between the port and its customer base are significantly more complicated.

After that, Lee and Lam (2016) adapted the characteristics of a 5GP (five generation port) that Flynn et al. (2011) presented and investigated the 5GP idea using a qualitative approach by performing case studies of important container ports in Asia, namely Busan, Hong Kong, Singapore, and Shanghai. Based on Lee and Lam (2015), this research updated their standards and included more specific standards for the 5GP, with the main question being: what makes a difference for a port to become 5GP? A 5GP consists of five aspects, eight features and 12 criteria, and the criteria are not port performance criteria in general because they are the specific requirements that define a port as a 5GP (Lee et al., 2018: 1102). Because of the general need of customers, reliability and resilient system criteria are used to assess the service quality (Zhang and Lee, 2014). The requirements of a single window system (SWS) and RFID or other applications describe the technological aspect (Perego et al., 2011). The criteria of coordination of port and city development, integrated development, and green port development serve to measure the aspect of sustainable development (Acciaro et al., 2014; Girard, 2013). Another important feature is clustering, represented by maritime and port clusters (De Langen, 2006; Zhang and Lam, 2013). Inland and waterside connections should be assessed for their hub potential when considering a logistics feature (Monios and Wilmsmeier, 2012; Pettit and Beresford, 2009).

To sum up, ports in the fifth generation must work closely with local, regional, and national government agencies to resolve disputes, establish priorities that allow uninterrupted cargo interchange between the port and its hinterland, maintain a high degree of security, be cost-effective, and have progressively less external environmental effects. A 5GP must formulate its plan and address local issues to ensure sustainable growth. However, the present criteria used to separate ports into generations are unstable. It would appear that criteria for yet another port generation, associated with how they operate in the following 50 years, should be devised (Kaliszewski, 2018: 23).

3.4. CHANGES IN THE PORT ENVIRONMENT

Ports, which have an important place in global production and supply chains, are greatly affected by global developments. Paixao and Marlow (2003: 355-356) state that ports with a turbulent environment are forced to change by several external factors. The general environmental factors that force ports to change are as follows:

- Long-term industry growth rates changes,
- Rising industry globalization,
- Rapid product innovation as a result of faster time-to-market demand,
- The spread of technological knowledge and technological transformation,
- New government rules or regulatory policies,
- Altering cultural issues, attitudes, and habits.

On the other hand, Rodrigue (2010: 5-6) stated that the external determinants affecting port management are; policy (governance, security, regulations), demography and society (population growth, change in work conditions, urbanization), energy and environment (energy availability, climate change, alternative energy sources), technology (information material and equipment technologies), economy (economic growth, global trade) and finance (pricing, public-private partnerships).

Based on this, changes in the port environment can be categorized into sub-dimensions; changes in the economic environment, technological environment, political-legal environment and social-cultural environment. Each will be covered in detail in the sections that follow.

3.4.1. Economic Changes

Ports are commercial entities operating within the framework of global commerce in general and maritime transport in particular. Realizing that the demand for ports is derived in nature, it results from the need for freight or passenger movement, and any change in the global economy and trade could result in changes in

this demand (UNCTAD, 2013). As a result, the port industry's economic environment affects industry demand and competitive dynamics.

According to UNCTAD's 50th Anniversary study published in 2018, the total amount of cargo handled worldwide in 1970 was 2.6 billion tons on a tonnage basis, while it reached 11 billion tons as of 2019. Based on the same table, while the total container traffic was less than 100 million tons on a tonnage basis as of 1980, it approached 2 billion tons as of 2019. Container transportation has grown by over 750% since 1990, as seen in the same report. According to Rodrigue and Notteboom (2015: 6), this figure is 790%.

The port sector's economic environment also affects how the sector is structured. According to Chlomoudis et al. (2003), significant global economic and trade developments have given ports new responsibilities and necessitated that ports adapt to new operating logic to handle the escalating competition. Bichou and Bell (2007) claim that the focus of competition has switched to the global market level and that larger economies of scale, more efficiency, and improved service quality are now the main goals. Moreover, Merikas et al. (2011) argued that the necessity to rationalize corporate operations to reduce financial risks is reflected in such changes driven by the economic environment.

3.4.2. Technological Changes

The digital revolution, experienced with the development of technology and globalization, has brought important developments in trade, communication, and transportation (Reynaud, 2009:10).

The changes in ship technologies have been one of the main forces behind the development of port technology. The design of ports is directly impacted by changes to ships' physical characteristics since ports are the infrastructures that are best suited to serving ships. Port technology has been gradually updated to support the current generation of ships. Because of this, technology has a big impact on how competition dynamics in this industry play out, and ports with better technology simply have an advantage because of how well they work. For instance, "double-trolley" and "multi-spreader" systems in ship-to-shore gantry cranes are technological advances that are

beneficial in enabling cargo handling operations to be carried out more efficiently and fulfilling the changing requirements of ships caused by their dimensional changes (Chao and Lin, 2011; Sağlam and Esmer, 2014). Similar to this, as ships become more specialized, ports must invest in specialized cargo handling equipment to carry out operations most accurately and effectively (Agerschou and Petersen, 2004).

As the importance of container transportation increases day by day, some of the technological developments that directly affect the ports are those related to containers. Some of the important developments in container security and management are Radio Frequency Identification Device (RFID), which enables the identification of the container and its electronic seal, and Supply Chain Event Management (SCEM) applications that facilitate the tracking of intermodal container transportation (Arendt et al., 2008:179-181). Also, the port business has seen numerous other technical developments that have forced ports to increase their level of performance. The use of hybrid terminal operation systems (joint use of rubber-tyred gantry cranes and straddle carriers) (Ateş and Esmer, 2013), updated storage equipment sizes for better use of yard space (Carlo et al., 2014), automation of terminal operations to increase efficiency and security (Nelmes, 2006), OCR (optical character recognition) technology for quicker gate operations (Kia et al., 2000), and improved x-ray technology are examples of these technological developments. Lastly, like other technological innovations, ports are also affected by developments in information and communication technologies, and these systems find wide application areas in ports (Chlomoudis et al., 2003:80). Information technologies facilitate trade by enabling customs procedures and make freight information more standardized and easily transferable. In addition, it provides mobility in supply chain applications and load flow and increases total efficiency (Rodrigue, 2010).

3.4.3. Political and Legal Changes

The political environment affecting ports varies depending on the geopolitical location of the country and ports, the stability of the regional, local and national government, and risks such as war. The developments in the legal environment of ports basically consist of rules and regulations arising from national laws or international

agreements to which the country is a party. These are; company laws, equal competition rules, tax, labor, environmental protection, franchise agreements, property, and customs rules (World Bank, 2007: 207-208).

Maritime transport and thus port management are directly affected by international trade policies. With trade liberalization, free trade policies have begun to be implemented in many parts of the world (Peters, 2001: 7). As a result of inefficient practices, some austerity measures such as privatization have been applied, and some sectors such as transportation and port management have changed the role and effect of government policies (Rodrigue, 2010: 5). According to Haarmeyer and Yorke (1993), port privatization is a solution to many of the issues ports face, and by putting it into practice, governments can be relieved of their financial and administrative burdens. However, port privatization is still debatable when the drawbacks are also considered. Some studies claim that there is only a weak connection between port privatization and efficiency (Cullinane and Song, 2002; Cullinane et al., 2005).

In addition to trade policies, two important developments that directly impact port management are the increased importance given to security, safety, and environmental issues. These developments appear as legally enforced regulations and security, safety, and environmental policies. Since World War II, port security has advanced, and particularly after the 9/11 terrorist attack in New York, new measures have been taken to reduce security threats under established standards (Christopher, 2014)

3.4.4. Natural Changes

One of the most important developments affecting maritime transport and thus the port industry is the increased importance given to environmental protection and sustainability and the problem of climate change. The issue of climate change, which should be addressed with stricter regulatory policies, will benefit the sustainability of transportation systems (Rodrigue, 2010:22). National and international organizations also carry out various studies on the negative effects of climate change on maritime business (Becker et al., 2012).

Maritime transportation is regarded as the most carbon-efficient mode of transportation since it emits less carbon dioxide per tonne-km than other modes of transportation, including air, truck, and rail, and accounts for 3% of the world's yearly CO_2 emissions. Nevertheless, based on various realistic long-term economic and energy scenario projections, these emissions are projected to increase by 50 to 250 percent by 2050 (Joung et al., 2020; Buhaug et al., 2009; IMO, 2020). Ports engage in various green management strategies within this context, beginning with measuring environmental impact by rethinking their operational processes and utilizing eco-friendly equipment. Governmental organizations now assess the effectiveness of ports' environmental protection efforts, and those that successfully complete the procedures are certified with "green port" or "ecoport" certificates. As a result, these ports enhance both their reputation and corporate image.

The effects of climate change on the ports will not only be seen physically but also the changing production places with the policies to reduce the climate change will also affect the distribution of the demands of the ports. In addition, it is expected that as a result of taxation practices according to fossil fuel use, the demand for sea transportation and thus port services will increase (Estache and Trujillo, 2009:78)

3.4.5. Social and Cultural Changes

There is a mutual interaction between the social and cultural environment and the ports. As the ports are directly affected by the social situation of the region and the social activities and pressures of the local communities, the people living in the port area owe their social development to the port and the industry in the background. In other words, while the social and regional development of the port is a determining factor, that region's resources and possibilities also determine the port's development (Reszka, 2001:28).

According to Frankel (1987:15), the social purposes of the ports are; increasing employment opportunities, reducing negative environmental impacts, supporting the development of local communities and balancing socio-economic factors. Also, Shiau and Chuang (2015) stated that port development not only benefits the port as a whole but also acts as a major driving factor for urban development, affecting people's

quality of life. Authors argued that the case that public involvement must now be a key factor considered while formulating plans for their upcoming actions. The quality of the relationship that port management builds with the local community has also gained prominence in this context (Dooms et al., 2015).

Moreover, the concept of corporate social responsibility (CSR) has gained significance due to increasing environmental and social pressures in the port business. According to Verhoeven (2010), transparency, adopting integrated management systems (i.e., total quality management or ISO 14001), and stakeholder involvement were presented as the most popular CSR issues in the CSR reports of European ports. Also, Karataş Çetin and Denktaş Şakar (2015) analyzed CSR reports of European ports and revealed that ports attach great importance to the issues such as stakeholder engagement strategies, the advancement of women in the workforce, sponsorships for educational, cultural, and sporting events, safe and coherent working climate, and the development of family-friendly human resource initiatives.

3.5. PORT SERVICES

Ports are enterprises that produce services. The scope and nature of the provided services are determined by the wishes and expectations of the port users. Services such as storage and cargo handling are the basic services that should be in a port (Esmer, 2019: 23).

Burns (2014: 106) classified port services as “port navigation services”, “cargo handling services”, “transit cargo storage services”, and “hinterland transfer services”. Alderton (2005: 5) grouped the services provided by the ports as services provided to the cargo and services to the ship. Services and facilities for ships are arrival and departure services, navigation aids, vessel traffic services (VTS), approach channel, pilotage, tugs and mooring gangs, locks, berths, administrative formalities such as police, immigration, customs, and health, supplies, water, bunkers, telephone, repairs, medical, waste disposal, port state control, cargo transfer, opening/closing of hatches and breaking out/stowing. Services and facilities for cargo are cargo handling on ship and quay, transport to/from storage, storage/warehousing, tallying, marking, weighing and surveying, surveillance, protection, sanitary measures, dangerous cargo

segregation, customs and documentary control, receiving and delivery, and added value services such as repackaging, labeling, sorting, assembling, cleaning and preparing cargo, setting up a logistics network and setting up a marketing package. Considering the variety of services provided by modern ports, it would be useful to classify the services provided to the ship and cargo as basic, supportive, and value-added services. Table 10 shows the categorization of port services.

Table 10: Port Services

Services for Cargo and Cargo Interests			**Services for Ship and Ship Interests**		
Basic Services	*Supportive Services*	*Added-Value Services*	*Basic Services*	*Supportive Services*	*Added-Value Services*
• Cargo Handling Operations • Stowing • Shifting • Transshipment • Marking • Weighing • Storage • Inland Transport • Security Services	• Warehouse/ Storage Services • Dangerous Goods Handling • Equipment and Vehicle Renting • Container Stuffing and Unstuffing Operations • Container Washing • Container Sweeping • Refrigerated Container Energy and Monitoring Service	• Office Services • Transportation • Catering Services • Intermediate Transportation • Information and communication • Consolidation • Deconsolidation • Lashing • Dunnage • Packaging • Marking • Barcoding • Sanitary • Surveillance • Container Repair and Maintenance • Container Tracking • Car Park	• Pilotage • Towage • Mooring • Harboring • Loading • Unloading • Stowing • Transshipment • Opening/ closing of hatches • Waste disposal	• Supply Services • Maintenance and Repair Services • Security Services	• Office Services • Catering Services • Energy Supply • Communication • Car Park

Source: Esmer, 2019: 27

As the size of the ports increases, the number of terminals and service diversity increases accordingly (Burns, 2014: 105). However, the port size alone will not be enough to explain the recently increased service diversity of the ports. Increasing competition conditions have caused ports to improve the variety of services they provide. This competition can occur between ports of different countries in the same region or even between ports located on different routes due to competition between routes. The most important factors affecting port services are the hinterland's load

potential, the hinterland area's transportation infrastructure, the infrastructure and superstructure facilities in the port, and the condition of the cargo handling equipment (Esmer and Karataş Çetin, 2013: 397). In today's competitive conditions, ports cannot survive only by providing cargo handling services. Therefore, modern ports use effective and interactive real-time software for all port and terminal services, including berthing, port operations program and cargo handling equipment, and various resources (Burns, 2014: 105). The ports are moving towards a transport service chain consisting of service supply, cargo flow, passenger flow, capital flow, business flow, information flow and technology flow (Liu et al., 2020).

3.6. PORT PERFORMANCE

In today's supply chain era, both the customer demands and the global competitive environment require the ports to continuously improve their performance (Ha and Yang, 2017: 264). Therefore, ports need to measure their performance regularly to improve their performance. In general, ports need performance measurement to measure their effectiveness, efficiency, how they are compared to previous years, whether they can meet their targets, their situation against competitors, and to gain new customers by marketing their work (Esmer, 2008: 240).

Port performance can be measured in many ways, depending on which aspect it is desired to examine (Tongzon, 1995: 246). Although the issue of port performance is one of the most popular topics in the literature, there is no consensus on which factors increase port performance. While some researchers think that managerial factors affect port performance, some link port performance to management structure, geographical factors, and the socio-economic environment of the port or the local supply chain system (Chen et al., 2020: 23). Nevertheless, many the studies take into account operational and financial indicators when evaluating port performance (Aqmarina and Achjar, 2017: 178). However, evaluating port performance only in these two dimensions will not be suitable for the complex nature of ports in terms of the services they provide to ships, cargo and other modes of transportation (Ateş and Esmer, 2013; Ateş and Esmer, 2014: 62). According to the studies conducted in recent years, it is seen that performance measurement has evolved to focus on a large number

of indicators rather than focusing only on financial measurements and to give importance to macro-level performance rather than micro-level or regional-level performance (Langenus and Dooms, 2015: 251). For example, UNCTAD (2016:16) revealed that port performance has the dimensions of port governance, financial performance, human resources, vessel operations, and cargo operations. On the other hand, Onwuegbuchunam (2018: 3) argued that new port performance indicators should be developed considering the changing roles of ports. In this sense, port performance's financial, operational, sustainability and logistics dimensions are examined in more detail.

3.6.1. Financial Dimension

The financial performance of a port is of great importance for the protection of investments and the planning of new projects in the future. In terms of port stakeholders, ports should increase their net profitability and total market share, invest in new development projects, and thus increase their financial performance (Bolevics, 2017).

The port's profitability can generally explain a port's financial performance. Bichou and Gray (2004: 49), who revealed that traditionally the financial performance of a port is based on its accessibility, stated that the operating profitability or total income and expenses per gross or net weight of the ships visiting the port are considered as the financial performance indicator of the ports. Regarding this, Teng et al. (2004) defended the importance of financial stability as one of the sources of the competitive power of ports. In their study on port performance's operational and financial dimensions, Caldeirinha and Felicio (2014) considered gross income per ton handled and gross income per worker employed as performance indicators. Also, Wiegmans and Dekker (2016) emphasized that the two main indicators determining ports' financial performance are sales and profitability. Moreover, Aqmarina and Achjar (2017) considered the rate of return and operating costs as financial performance indicators. On the other hand, Bitiktaş and Karataş-Çetin (2017) argued that ports should focus on operational cost efficiency rather than pricing strategies.

3.6.2. Operational Dimension

When the studies on port performance in the literature are examined, it is seen that either they used the operational performance instead of the port performance or integrated an operational indicator into the port performance.

Especially from the customer's perspective, one of the most important indicators of the operational performance of ports is speed. In this sense, Tongzon and Heng (2005) and Kavakeb et al. (2015) stated that the operational speed level at the ports is a very important performance indicator since the cost of the ships in navigation is much lower than the cost during their stay at the ports. In addition, studies on improving port performance especially focus on the concepts of efficiency and effectiveness so that port operations can be faster (Sridi et al., 2017: 88).

In the relevant literature, it is seen that many indicators are used for the operational performance of ports. Lin and Tseng (2007) and Ursavaş (2014) used the number of ships arriving at the port and the volume of containers loaded and unloaded as operational performance indicators of ports. In addition to these indicators, Esmer (2008) also used the rate of containers loaded and unloaded, crane efficiency, the automation level of quay cranes, average container weight, time the ship stays in port, total working time, stored container movement, employee productivity, space utilization efficiency, equipment usage efficiency and cost efficiency. Differently, Paing and Prabnasak (2019: 2) emphasized that indicators such as the average waiting time before arriving at the pier, the average tonnage of cargo handled per ship, berth occupancy rate, container staying time in port, and truck return time are used as performance indicators in the literature.

3.6.3. Sustainability Dimension

Ports have become a complex system due to factors such as the variety of cargo within, their proximity to the community, and the interests and responsibilities of their stakeholders. For this reason, and considering today's climatic conditions (Lirn et al., 2013: 428), appropriate management against security and environmental risks within the port area has become very important (Antao et al., 2016: 266).

In order to implement environmental management practices in ports, there are three critical processes: cooperation with supply chain partners, environmentally friendly operations, and internal management support (Venus, 2011: 561). Air quality, greenhouse gas emissions, soil and ground resources, debris, light and sound problems, and water and climate change must be improved in the environmental dimension to ensure port sustainability. In the economic dimension, indicators such as the benefit of port users, fair competition, employment, economic development, tourism, and local area for port investment should be considered (Lu et al., 2016: 912). In the study of Saengsupavanich et al. (2009), the number of facilities and terminals with the European Standards Organization Environmental Management System (ISO 14001) certified, number of environmental complaints, number of fuel/chemical leakage incidents, water quality around the port, penalties for non-compliance operators, number of employees in the environmental department, annual inspections at the port both tangible and intangible criteria such as number of ships, environmental expenditures, taxes and appropriations, accessibility to emergency plans, frequency of training, level of knowledge of employees about port state controls, and protection of environmental policies are considered as environmental performance indicators.

Lim et al. (2019) examined studies evaluating the sustainability performance of ports and did not find any studies that only dealt with sustainability's social or economic dimension. The general trend in the relevant literature is that the concepts of sustainable port performance and environmental port performance are intertwined. On the other hand, Özispa and Arabelen (2018) brought together the indicators under the economic, social, and environmental dimensions of port sustainability.

3.6.4. Logistics Dimension

Regarding logistics, ports are important nodes as they provide intermodal and multimodal transportation services and work as logistics centres for freight and passengers (Bichou and Gray, 2004: 53).

The logistics performance of ports is related to the extent to which the port is integrated into the supply chains. Its performance along its hinterland, representing the area from the port's gate to the farthest land-connected customer, reveals the port's

logistics performance level. The service quality of the port and port fees are the main success factors of ports in the competitive hinterland (Jafari and Khosheghbal, 2013: 1043). Also, In the project named PPRISM carried out by ESPO (The European Sea Port Organisation), the intermodal connection level was used as a performance indicator, referring to the inseparable link between ports and their hinterlands (De Langen and Sharypova, 2013: 98).

In addition to hinterland connections, it is also an important performance item to protect material assets such as infrastructure, superstructure, and equipment, or intangible assets such as information technology, corporate memory, and operational capabilities from external factors or to repair them quickly if damaged. Chen et al. (2017: 283) argue that the instant reaction to disasters that may occur in any port-hinterland line or the recovery to reach the old performance in a short time is a very important attitude that increases the level of competitiveness for ports. Moreover, the logistics performance of ports is often also based on efficiency and utilization measures. Accordingly, many indicators determine the logistics performance of ports. Bichou and Gray (2004) identified processes such as logistics integration, benchmarking, logistics channel design, value-added services, and customer service as indicators of a port's logistics performance. Woo et al. (2011) included indicators such as service quality, level of customer focus, added value service prices, waiting time between transport modes, and working time for cargo. Bucak and Esmer (2019) revealed that components such as time, cost, service distance, connectivity/accessibility, safety issues, rail connection, customs control efficiency determine the performance of the logistics service provided by the ports to the hinterland.

3.7. PORT MANAGEMENT

The efficiency of a port is closely related to its activities being safe, secure, productive and environmentally friendly. While ports provide shelter for ships, regardless of size, region and specialization, it requires effective management of many activities, human resources, natural resources and financial resources (Burns, 2014: 1-2). The authority that undertakes the management of the port, while carrying out the

activities in the port, works in coordination with the contractors of these activities and the port stakeholders who are the affected ones. “internal stakeholders” consist of employees and middle managers and “external stakeholders” consisting of the local community, government bodies, suppliers, competitors and customers are the stakeholders with whom the management of the port interacts (Denktaş Şakar and Karataş Çetin, 2012: 307).

Over the years, port operators have been influenced by the global trade and transportation industry regarding ownership, management and services provided. The globalization of markets has also increased the burden on maritime transport, and this development has led to changes in the ownership of structures in the port, distribution of powers and organizational structure (Burns, 2014: 21). As the type and ownership structure of the port changes, changes are observed in the management and organizational structure of the port. Port organizational structures differ according to the ownership structure, functions and external factors affecting the reporting process of port infrastructure, superstructure and equipment. For example, the organizational structures of private and state-owned ports are not alike. The determining factors in port organizational structures are those who determine the aims of the port, the degree of autonomy of the port and its management, the legal and other authorities of the port and its management, and the ones who undertake the functions/services of the port (Frankel, 1987:541-542). Along with the attempts of global terminal operators to operate terminals in ports of different countries, the organizational structures of these companies operate in multi-layered networks in which the terminal infrastructure, operations and corporate decision-making mechanism are located in different regions (Olivier, 2005:92).

As a result of the examination of different port organizations on a national and international scale, it is seen that port managements consist of management levels such as general manager, assistant general managers, technical, finance, and human resources managers, similar to the structure of other business administrations. These managers determine port policies, legislation and development strategies. Port managers take critical decisions about the port operations and plan their implementation. Therefore, port managers significantly influence the factors affecting the port’s performance. Well-trained “competent” managers will contribute to the

performance of businesses following competitive conditions with the right management activities in their fields. In this sense, in today's increasing competitive conditions, the need for well-trained port managers is increasing (Thai et al., 2016: 616).

3.8. CORPORATE REPUTATION AND CONTAINER PORTS

Containerization, which means the transportation of cargoes between container terminals by being transported in containers, is a concept that has been developing regularly in the last 50 years. In this way, the speed of cargo handling has increased, the risk of cargo damage and theft has been reduced, labour savings have been achieved with the high automation in the container terminals, and transportation and handling fees have become more competitive thanks to the economies of scale achieved (Branch and Robarts, 2014: 398-399). In line with these developments, the global container volume has had an important share in world trade, and container ports have become one of the most important parts of the port industry.

In 2020, world container port traffic volumes were estimated at 815.6 million TEUs for 2021, and volume is projected to grow by 10.1 per cent. Also, there are 6.434 active ships in the world container ships fleet and in 2020, and global container fleet capacity expanded by almost 3 per cent, to 281,784,000 dwt (deadweight tonnage), while container trade contracted by 1.1 per cent to 149 million TEU (Alphaliner, 2022; UNCTAD, 2021). Container terminals, which are part of such a large economic order, try to continue their activities in a much more intense competitive environment than terminals handling other types of cargo. Now the competition in container terminals has moved beyond the port area and has continued throughout the supply chain (Haralambides, 2015: 3). In this context, the strategic management approach of container ports has also changed. Container terminals developed structural tactics that include individual attention to their customers, who are the stakeholders of regular line transportation, to resolve complaints, interact (visit, call), socialization efforts (customer meals, sports activities, etc.), social tactics such as establishing personal intimacy, and special services that respond to customers' special requests (Çalışkan and Esmer, 2020: 244).

Moreover, changes and expectations in global trade, which are the most important triggers for the development of container terminals and ships, also affect the situation of container terminals. For example, with the emergence of the pandemic, which went down in history as Covid-19, global trade was greatly damaged, and the new order due to Covid-19 created a chaotic system for container ports. Also, increasing purchasing power and technological developments such as Industry 4.0 applications have developed customer-specific applications, and this situation has affected the container terminals heavily as it is one of the closest terminals to the customer. These global trade and maritime industry developments have increased the importance of multi-dimensional and inclusive concepts such as reputation to successfully managing container ports, which have a very dynamic and complex structure.

The concept of reputation is a collective assessment of a company's or organization's ability to provide valued outcomes to a representative group of stakeholders (Fombrun et al., 2000). Concordantly, in today's container port industry, where stakeholder involvement and port obligations in the social and environmental areas are increasing, the concept of reputation, which includes collective assessments, comes to the forefront. Because the reputation of container ports can reflect how well container ports have done in the eyes of the marketplace (Weiss et al., 1999: 75). Also, in conditions of increasing competition, port users' expectations and port services comprehensiveness is advancing. Furthermore, instead of the traditional tangible indicators, there is a need for new port performance indicators (De Langen et al., 2007). Therefore, a reputation which includes stakeholders' overall evaluation of a company or organization over time based on direct experiences or any other form of communication (Gotsi and Wilson, 2001) can be a useful indicator for the measurement of container ports' performance. In the light of all these developments, reputation should be considered a crucial concept that should be addressed in the container port industry.

CHAPTER FOUR
AN ANALYSIS OF THE DETERMINANTS OF CORPORATE REPUTATION IN CONTAINER PORTS

This chapter explains the study's research problems, gaps, aim, and scope. After that, research methods are discussed by revealing the data collection, sampling, information on the participants, and data analysis. Moreover, the evaluations pursued by the researcher are presented using both qualitative and quantitative methods.

4.1. PROBLEM DEFINITION AND RESEARCH GAPS

The logic of business and organizations was challenged during the 20th century, mainly by advancements in production technology, while as we enter the 21st century, advancements in information technologies are shaping the logic of the entire globe. Due to new insights in a global business environment where organizations are more interconnected and under pressure to compete, as well as customer expectations and preferences changing much more quickly, these developments bring various applications that call for more flexible and adaptive organizational structures. (Palmberg, 2009: 483; Arevalo and Espinosa, 2015: 21). Organizations have to concentrate on multiple developments and demands of their global "stakeholders and resource holders" in addition to internal problems as a result of changes happening (Hulsmann et al., 2008: 14). Such an interconnected and interdependent business environment, intangible assets such as corporate reputation could be beneficial for understanding global business issues.

Given its potential to influence competitive advantage and firm performance in both the short and long term, the topic of corporate reputation continues to hold the interest of both academics and practitioners. As a result of this acknowledgment, research into corporate reputation has been requested, and responses have come from several angles. Academics and practitioners have become increasingly interested in the need for a comprehensive definition of corporate reputation throughout the years (Ponzi et al., 2011). The literature, however, indicates that there is not just one definition of corporate reputation (Abratt, 1989; Barnett et al., 2006; Brown et al.,

2006), but rather that each stakeholder group has its own definition because they each have a different perspective on the company or organizations and construct their definition of corporate reputation based on their perspectives (Bonini et al., 2009; Bromley, 2001; Dowling, 1993). Also, there is no consolidation of fundamental components of corporate reputation because the various researches presented several divergent perspectives on what the essential elements of corporate reputation are (Barnett et al., 2006; Brown et al., 2006). Furthermore, previous studies about corporate reputation have established that a company's reputation can be either positive or negative (Fombrun and Shanley, 1990; Bromley, 2000; Whetten and Mackey, 2002; Rindova et al., 2005). Therefore, it is a separate issue to investigate whether the effects of reputation are perceived as positive or negative and, if a positive perception is considered, to investigate the benefits of reputation.

In a highly volatile and uncertain business environment, container ports, one of the main parts of maritime business, require new managerial ways to survive in intense competitive conditions. The concept of corporate reputation could provide the opportunity and offers proper solutions to achieve successful management. However, there are some gaps throughout the literature, such as:

- **Gap 1:** There is no consensus about the definition of the corporate reputation concept and the scarcity of studies based on the port sector, which includes definitions of corporate reputation that include the perceptions of port stakeholders.
- **Gap 2:** There are various dimensions and determinants for examining and measuring the corporate reputation concept, but sector-specific determinants of corporate reputation for container ports have not been thoroughly studied.
- **Gap 3:** Researchers study and investigate the effects of corporate reputation in several sectors. However, container port stakeholders' opinions on the effects of corporate reputation on container ports have not been addressed before.

4.2. AIM AND SCOPE OF THE STUDY

Ports are generally the unifying element of international and national trade routes and the most crucial supporter in reaching a more comprehensive trade network with their services. This critical mission of ports for international trade requires them

to adapt to the competitive environment of both today and the future and to develop policies that increase service quality, speed and scope. In today's supply chain era, both the customer demands and the global competitive environment require the ports to constantly improve their performance (Ha and Yang, 2017: 264). Furthermore, the port industry is considered a complex system composed of various independent stakeholders connected through organizational relationships to carry out shared activities and co-create value (Schellinck and Brooks, 2016).

Within this framework, this study proposes investigating attitudes towards corporate reputation concept and identifying determinants of corporate reputation offers new managerial understandings to realize current situations like managers of container ports able to learn how to overcome the uncertainty and changing conditions and ensure the competitiveness, preferability and the success of the ports. With this research motivation, the main aim of this dissertation is "to present how the container port stakeholders perceive the concept of corporate reputation and examine the factors that determine the reputation of container ports." This study also aims to suggest an organizational framework to show how container ports can develop successful corporate reputation management strategies via stakeholder theory if determinants of corporate reputation could be defined and included in organizational properties. Considering all these reasons, the objectives of the study are determined as follows:

Using qualitative research method;

- to define reputation and corporate reputation concepts for container ports and to present the differences in approach among container port stakeholders,
- to identify determinants of corporate reputation in terms of container ports and to present the determinants prioritized by each port stakeholders,
- to reveal the effects of a good reputation on container ports from the perspective of port stakeholders.

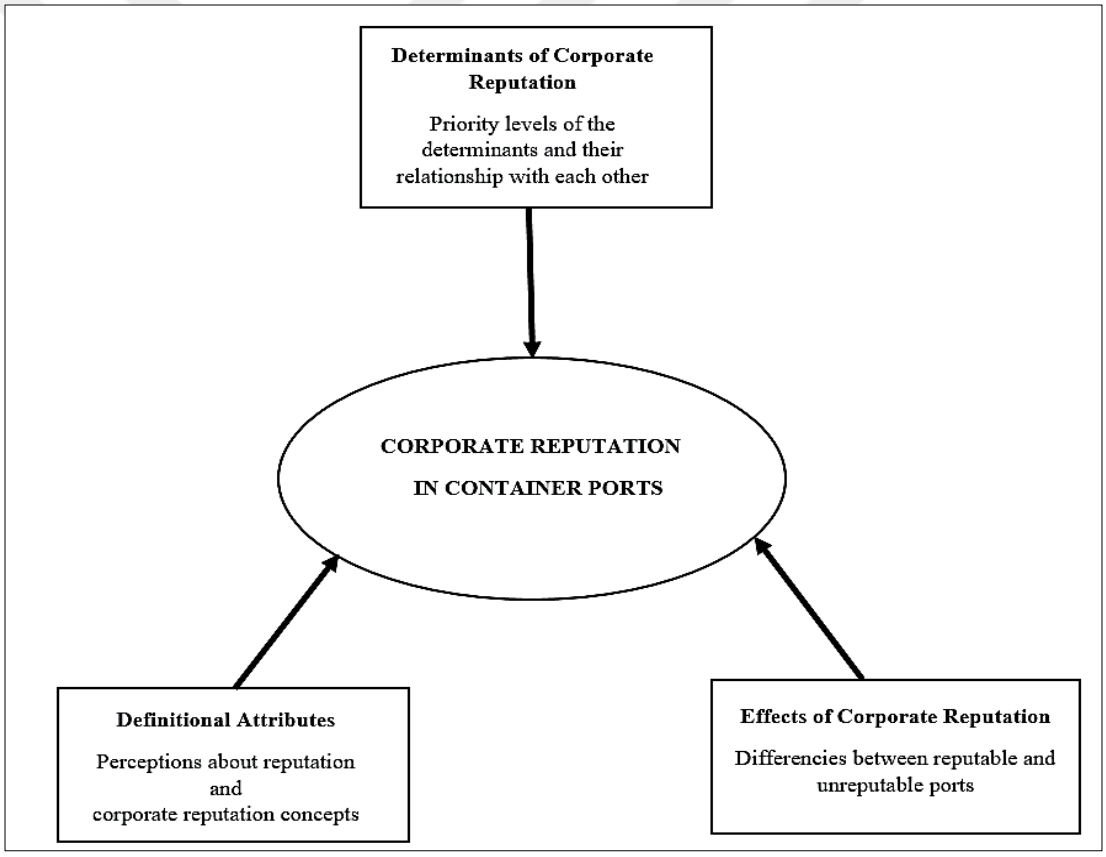
Using quantitative research method;

- to examine the priority level of identified determinants of corporate reputation and the degree of influence of each other.

4.3. CONCEPTUAL FRAMEWORK AND RESEARCH QUESTIONS

The main question of this study has already been asked in previous sections: "how do the container port stakeholders perceive the concept of corporate reputation, and what are the factors that determine the reputation of container ports?". As explained in the research objectives, an exploratory approach was adopted using qualitative and quantitative methods to answer this question. The conceptual framework of the study is illustrated in Figure 10.

Figure 10: Conceptual Framework of the Study



Source: Prepared by Author

Figure 10 shows that definitional attributes about corporate reputation constitute the first research question. Over the past few years, many more publications have examined the concept of reputation (Lucas and Tan, 2013). However, the concept

of corporate reputation has been defined differently by different authors. Whetten and Mackey (2002) summarize this by saying that reputation is simply how the company is viewed by its stakeholders. Nevertheless, there needs to be a means to deal with unclear terminology that is a barrier to understanding. Additionally, it is necessary to categorize and clarify the connections between terms pertinent to corporate reputation. An ontology aids in the establishment and promotion of a common language, a collection of definitions, and descriptive relationships (Uschold et al., 1998).

Sixteen definitions of corporate reputation were discovered in a study by (Bennett and Kottasz, 2000). Barnett et al., (2006) found 49 distinct sources containing corporate reputation definitions after expanding their search to include definitions from research conducted between 2000 and 2003. Authors discovered that the definitions were concentrated in three places: "reputation as a state of awareness, reputation as an assessment and reputation as an asset." According to Rindova et al. (2005: 1033), a definition of corporate reputation that encompasses all three clusters is corporate reputation is "stakeholders' perceptions about an organization's ability to create value relative to competitors." For these reasons, the study aims to answer the first research question (RQ) to take a snapshot of how the container port industry stakeholders perceive the concept of reputation. The questions are developed to address Research Gap 1 as follows:

RQ (1a): How do the container port industry stakeholders define the concepts of reputation and corporate reputation?

RQ (1b): Are there differences between container port stakeholders' definitions of the concepts of reputation and corporate reputation?

Measuring corporate reputation performance and determining corporate reputation variables are also important research areas. The relevant literature outlined several conflicting views about the critical dimensions of corporate reputation, and still, there is no consensus about central constructs (Barnett et al., 2006; Brown et al., 2006). For example, Gabbioneta et al., (2007) found that the emotional appeal of a company most strongly influenced corporate reputation, while an earlier study by Gardberg and Fombrun (2002) claimed that a company's corporate citizenship was most significant. In contrast, Mercer (2004) emphasized top leadership as the most notable dimension of corporate reputation. The literature suggests various factors that

are likely to influence reputation. However, the Reputation Quotient (RQ) developed by Fombrun et al. (2000) is particularly interested in a multi-dimensional understanding of corporate reputation. RQ includes six different dimensions. These dimensions are (1) Emotional appeal; (2) Products and services; (3) Vision and leadership; (4) Workplace environment; (5) Social and environmental responsibility; and (6) Financial performance.

Furthermore, it can be seen that there are some sector-specific corporate reputation measurement studies have conducted before. For example, Caruana and Chircop (2000) developed an instrument for measuring corporate reputation among consumers in the beverage industry. Chen and Chen (2009) measured the corporate reputation of the top five privately run banks. Smilarly, Trotta and Cavallaro (2012) aimed to propose a reputational framework suitable for assessing the reputation of Italian banks. Sarstedt and Schloderer (2010) tried a model for measuring and explaining the reputation of Non-Profit Organizations. Moreover, Verčič et al., (2016) explored the possible agreement of an academic organization's reputation among various stakeholder groups and tested the model of an academic reputation as a multi-dimensional concept. In the light of these developments, the questions are developed to address Research Gap 2 as follows:

RQ (2a): What are the determinants of container port reputation?

RQ (2b): Are there differences between container port stakeholders' attitudes about determinants of container port reputation?

RQ (2c): What are the priority levels of identified determinants of corporate reputation and the degree of influence of each other?

Many reputational studies have studied the relationship between corporate reputation and performance. Literature provides extensive evidence on the benefits of a good reputation and successful corporate reputation management. Stakeholders need to think good about an organization, from customers to employees to consumer advocates. Moreover, building a good reputation to sustain an organization through difficult times is crucial. A good reputation can provide great numbers of strategic benefits, such as lowering firm costs (Deephouse, 2000; Fombrun, 1996), allowing firms to charge premium prices (Deephouse 2000; Fombrun and Shanley, 1990; Fombrun, 1996; Rindova et al., 2005), attracting applicants (Fombrun, 1996; Turban

and Greening, 1997), investors (Srivastava et al., 1997) and customers (Fombrun, 1996), increasing profitability (Roberts and Dowling, 2002), and creating competitive barriers (Deephouse, 2000; Fombrun, 1996; Milgrom and Roberts, 1982). From this point forth, this study aims to answer the following research question to address Research Gap 3:

RQ (3): What are the opinions of port stakeholders about the effects of corporate reputation on container ports?

4.4. METHODOLOGY OF THE STUDY

This study employs qualitative and quantitative research methodologies together. Thomas (2003:1) states that qualitative and quantitative researches are often the two most recognized research approaches.

The primary purpose of qualitative research is to try to understand the concepts from the perspective of the people who are researching them. This interest stems from the fact that social actors make sense of inanimate objects or experiences, events and practices around them in the social world. As a result, qualitative researchers' efforts are directed toward understanding how social actors report their experiences, interactions, and participation in the world (Sığrı, 2021: 67). The advantages of using qualitative methods in researching social phenomena are as follows (Ospina, 2004):

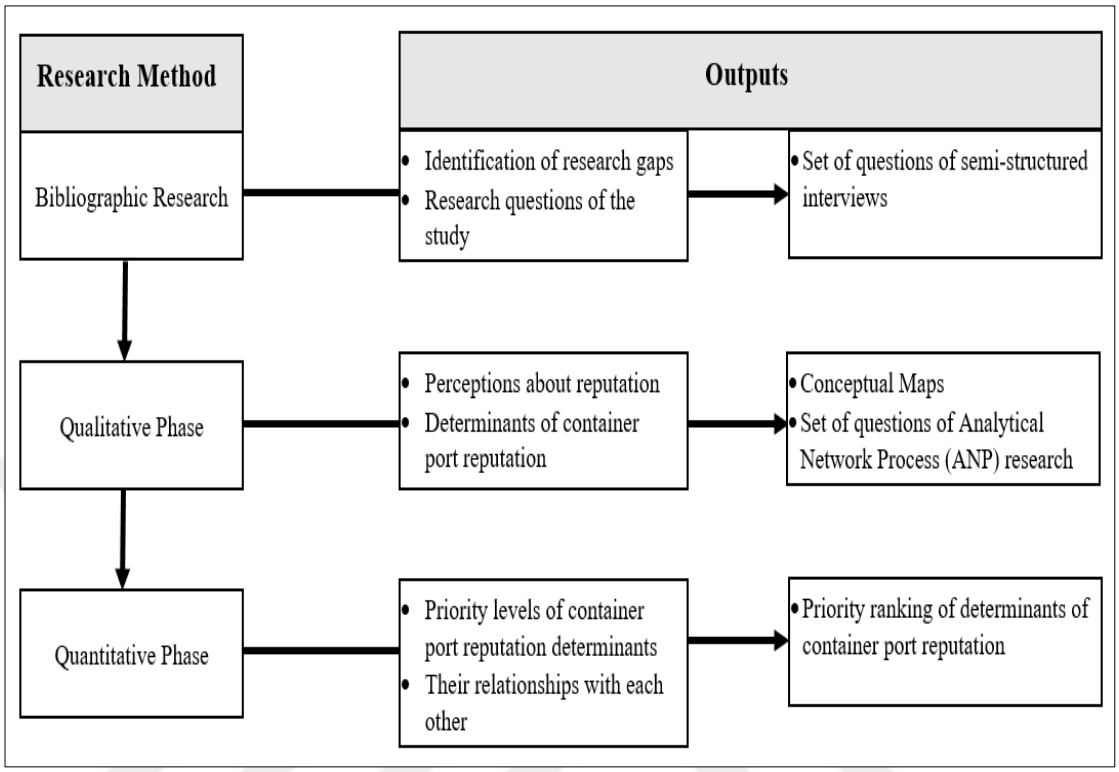
- to discover a phenomenon that has not been studied before (and can then be developed quantitatively),
- doing quantitative research at the beginning and then qualitative research to fill in the gaps,
- attempting to understand a topic simultaneously by using mixed methods research with both quantitative and qualitative methods simultaneously or in a loop depending on the problem
- to develop a new perspective of a phenomenon that has been quantitatively well studied but not well understood due to the narrow perspectives used previously,
- trying to "understand" any social phenomenon in terms of the actors involved rather than explaining it from the outside,

- understanding or quantitatively capturing complex phenomena that are difficult or impossible to approach,
- is to understand any phenomenon of complexity or any phenomenon that has been rejected or dismissed as irrelevant by mainstream research because of the difficulties of the study or that has been studied as if only one point of view had taken place.

Studies conducted within the scope of the positivist paradigm in order to reach objective and generalizable information are defined as quantitative research. In quantitative research, phenomena are objectified by abstracting from the processes and factors around them and then transformed into observable and measurable features. This way, it is assumed that reality can be identified and understood through accurate measurements and careful digitization (Kuş, 2009: 105; Erdoğan, 2003: 27). Furthermore, in the quantitative approach, the researcher is expected to reveal the truth in an objective way, independent of own values. For this reason, researchers who have adopted the quantitative method generally carry out their studies with standard measurement tools by isolating themselves from research (Borg and Gall, 1989: 23).

Research design is divided into exploratory and consequentialist research, and exploratory research is often followed by consequential research (Gegez, 2010: 32). A researcher trying to define a problem and determine variables is expected to use exploratory research and research models (Yükselen, 2011: 32). As explained in the research objectives, in the qualitative part of the study it was aimed to define and the dimensions of the problem and to determine the variables to be used in the research model. Since descriptive research aims to describe the phenomenon, it tries to go into the details of the studied problem rather than exploratory research (Böke, 2009: 13). For this reason, the quantitative part of the study has a descriptive research nature. The research methods used in the study are detailed in Figure 11.

Figure 11: Research Methods Used in the Study



Source: Prepared by Author

Lastly, this research adopted interpretivism and positivism together in terms of the research philosophy. Research philosophy can be considered an advancement in knowledge (Deshpande, 1983). According to Saunders et al. (2009), research philosophies are divided into positivist and interpretivist categories. Without utilizing statistical techniques or any other type of quantification measure, interpretivist research looks for answers to research questions (Strauss and Corbin, 1990). On the other hand, in positivist (quantitative) research, data are analyzed, and generalizations are made. This approach aims to create frameworks and evaluate theories. While interpretivists consider human perceptions and thoughts before concluding, positivists emphasize the measurement of observations and the application of standardized methods for knowledge-seeking (Hughes and Sharrock, 1997). In this context, while the qualitative parts of the study bear the characteristics of interpretivism philosophy,

the quantitative part, which is the final part of the study, contains the characteristics of positivist philosophy.

4.4.1. Semi-Structured Interview

The interview is a qualitative data collection method that seeks to understand people and the situations associated with them through verbal communication (Gürbüz and Şahin, 2015). According to Behar (1997), interviewing through face-to-face interaction is the method in which social reality is experienced the most. Therefore, the most appropriate method is the interview in cases with little information about the researched phenomenon or when detailed information is required from the participants (Silverman, 2000).

In qualitative research, interviews are defined as structured, semi-structured and unstructured. In structured interviews, the researcher conducts the interviews in a standardized manner by asking pre-prepared questions to each participant in the same way without any changes in the interview questions. Unstructured interviews, on the other hand, are those that do not use pre-prepared questions, focus on the participant's point of view about themselves, their lives and experiences and tell them in their own words. In semi-structured interviews, which is also the data collection method used in the study, researchers use pre-prepared questions and can also ask additional questions while interviewing based on the answers and comments of the participants. It is not necessary to follow a sequence of questions in such interviews. Semi-structured interviews are the right approach if the researcher has the chance to interview the participant only once. The strength of this type of interview is that it allows the researcher to get the best answers in a limited time and ensures that the interaction is focused. The weakness of semi-structured interviews is that they may not always provide the participant's original perspective (Minichiello et al., 1990; Savin-Baden and Major, 2013).

Considering the features and advantages, it was determined that the semi-structured interview method was suitable for the research questions and nature of the study. Because of these reasons, the qualitative part of the study was completed by conducting semi-structured interviews with container ports stakeholders.

4.4.1.1.Population and Sampling

Having the correct information and making the right decision in scientific research is essential. Therefore, there is a need to reach accurate information and generalize the information obtained (Arıkan, 2004). The more the results of a study can be generalized, the higher its value. Since science is a body of generalizable information, it is important to try to obtain information that can be generalized in a wide area of research (Karasar, 2012). For this reason, it is crucial to determine the population and sample in a scientific study.

The population encompasses all the elements for which the results of a study want to be generalized. This scope includes all kinds of animate or inanimate things/objects with similar properties. On the other hand, the sample is the small set selected from a particular population according to specific rules and accepted to represent the universe from which it was selected. Studies are mostly done on sample sets, and the results are generalized to the relevant population (Karasar, 2012). The sample is a part of the population and is of great importance in terms of research and statistics.

The population of this study covers stakeholders of container ports in Turkey and Europe. Specifically, these stakeholders are grouped as liner shipping companies, freight forwarders and cargo owners (import-export companies). Additionally, opinions of port managers and academics related to port management were also received. Representatives of these businesses directly involved in the governance of business-to-business partnerships were chosen as participants to gather appropriate data for the study. The sampling method is used as purposeful sampling to increase the phenomena' variability. This line has aimed to include participants with various titles and from various departments so that the findings can capture diverse aspects of the phenomena (Patton, 1990). Multiple participants from each container port stakeholder were chosen because they are the research's focal point. Detailed information on the sample of the interviews is presented in Table 11.

Table 11: Sample of the Interviews

	LINER SHIPPING COMPANY	PORT	FORWARDER	ACADEMICIAN	IMPORT-EXPORT COMPANY
TURKEY	Interviewee Code: LSC-1T Senior Customer Service Agent 10 Years of Sector Experience	Interviewee Code: P-1T Trade and Customer Relations Assistant Manager 14 Years of Sector Experience	Interviewee Code: F-1T Business Development Manager 13 Years of Sector Experience	Interviewee Code: A-1T Asst. Professor Doctor 18 Years Experience	Interviewee Code: I-1T Foreign Trade and Logistics Manager 15 Years of Sector Experience
	Interviewee Code: LSC-2T Senior Customer Service Agent 9 Years of Sector Experience	Interviewee Code: P-2T Assistant Trade Manager 9 Years of Sector Experience	Interviewee Code: F-2T Operation Manager 22 Years of Sector Experience	Interviewee Code: A-2T Asst. Professor Doctor 11 Years Experience	Interviewee Code: I-2T Import Specialist 7 Years of Sector Experience
	Interviewee Code: LSC-3T Export Customer Specialist 9 Years of Sector Experience	Interviewee Code: P-3T Marketing Manager 21 Years of Sector Experience	Interviewee Code: F-3T Sea Export Specialist 8 Years of Sector Experience	Interviewee Code: A-3T R.Asst. Doctor 9 Years Experience	Interviewee Code: I-3T Export Specialist 7 Years of Sector Experience
	Interviewee Code: LSC-4T Export Coordinator 9 Years of Sector Experience	Interviewee Code: P-4T Operations Manager 15 Years of Sector Experience	Interviewee Code: F-4T Sea Export Customer Agent 7 Years of Sector Experience	Interviewee Code: A-4T R.Asst. Doctor 9 Years Experience	Interviewee Code: I-4T Owner-General Manager 12 Years of Sector Experience
	Interviewee Code: LSC-5T Customer Service Agent 9 Years of Sector Experience	Interviewee Code: P-5T Field Operations Manager 15 Years of Sector Experience	Interviewee Code: F-5T Sea Export Coordinator 10 Years of Sector Experience	Interviewee Code: A-5T Asst. Professor Doctor 5 Years Experience	Interviewee Code: I-5T Regional Logistics Manager 7 Years Sector Experience
	Interviewee Code: LSC-6T Import Service Agent 8 Years Sector Experience	Interviewee Code: P-6T Ship Planning Specialist 10 Years Sector Experience	Interviewee Code: F-6T Export Team Leader 8 Years Sector Experience		
	Interviewee Code: LSC-7T Sales Coordinator 18 Years Sector Experience	Interviewee Code: P-7T Human Resources Manager 9 Years of Sector Experience	Interviewee Code: F-7T Sales Director 9 Years of Sector Experience		
		Interviewee Code: P-8T Customer Relationship Manager 14 Years of Sector Experience	Interviewee Code: F-8T Turkey Cargo Director 20 Years of Sector Experience		

	LINER SHIPPING COMPANY	PORT	FORWARDER	ACADEMICIAN	IMPORT-EXPORT COMPANY
EUROPE	Interviewee Code: LSC-1E North Europe Managing Director 25 Years of Sector Experience	Interviewee Code: P-1E Customer Delivery Manager 15 Years of Sector Experience	Interviewee Code: F-1E Customer Service Director 8 Years Sector Experience	Interviewee Code: A-1E Lecturer 6 Years Experience	Interviewee Code: I-1E Owner-General Manager 21 Years of Sector Experience
	Interviewee Code: LSC-2E Managing Director 43 Years of Sector Experience	Interviewee Code: P-2E Projects and Policy Manager 13 Years of Sector Experience	Interviewee Code: F-2E Ship Planner 6 Years of Sector Experience		Interviewee Code: I-2E Supply Chain and Order Director Representative 6 Years of Sector Experience
	Interviewee Code: LSC-3E Export Coordinator 9 Years of Sector Experience	Interviewee Code: P-3E Marketing Communications Director 20 Years of Sector Experience	Interviewee Code: F-3E Global Implementation and Solution Design Team Lead 25 Years of Working Experience		
	Interviewee Code: LSC-4E Customer Service Assistant Manager 8 Years Sector Experience	Interviewee Code: P-4E Innovation Department Specialist 5 Years of Sector Experience	Interviewee Code: F-4E Sea Freight Export Specialist 6 Years of Sector Experience		
		Interviewee Code: P-5E Infrastructure Expert 5 Years of Sector Experience	Interviewee Code: F-5E Ocean Import Coordinator 10 Years Sector Experience		

Source: Prepared by Author

When choosing participants for liner shipping businesses, it was important to consider their size, cargo volume, and location of origin by including corporate representatives from various company profiles. Also, the selection process for the freight forwarders and import-export companies (cargo owners) strongly emphasized including businesses with various cargo kinds in addition to their cargo volume. Moreover, the selection of container port representatives is intended to include container ports located in different areas of Turkey and Europe. Lastly, for the academic selection, care was taken to select the participants who had carried out their doctoral studies in port management.

As shown in Table 11, the sample of the interviews consists of 50 participants from stakeholders of container ports in Turkey and Europe. 33 participants were from Turkey and 17 from European countries such as Germany, Holland, Belgium and Sweden. Most of the participants are port and forwarder stakeholders. Also, it can be seen that the participants' years of experience in their sectors vary between 5 and 42 years. Participants were not predetermined in terms of number. Up until data saturation, data collection was continued.

4.4.1.2.Data Collection Process

As explained in previous sections, semi-structured interviews are the main information-gathering tool in the qualitative part of the study. Semi-structured interviews are used because they give participants the freedom to go off topic anytime the answers to predefined questions do not seem to lead to a deeper understanding of the issue (Berg, 2000). Thus, the participants had the chance to share their thoughts by discussing their experiences with a corporate reputation in the container port industry (Rosenthal, 2016).

The interview questionnaire form (see Appendix 1) consisted of 3 groups of questions. The questions in the first group aimed at understanding the perception of container port stakeholders about the reputation and corporate reputation concepts. The second group included a question on determinants of corporate reputation in the container port. Finally, the third group of the question was addressed to reveal the effects of corporate reputation on container ports.

Interviews have started in Turkey on 11 January 2020. Between 11 January 2020-20 February 2020, 6 interviews with liner shipping company representatives, 7 interviews with forwarder company representatives, 5 interviews with container port representatives, 3 interviews with import-export company representatives and 1 interview with port-related academic were carried out. In total, the sample of the study covered 22 participants in Turkey. After the start of the Erasmus process in Germany, between 15 June 2020-30 September 2020, 4 interviews with liner shipping company representatives, 5 interviews with forwarder company representatives, 5 interviews with container port representatives, 2 interviews with import-export company representatives and 1 interview with port-related academic were carried out. In total, the sample of the study covered 17 participants in Europe. After the fourth thesis meeting on 18 September 2020, 3 interviews with port-related academics, 1 interview with import-export company representatives and 1 interview with container port representative were carried out. Moreover, finally, 6 interviews were conducted in June 2021.

At the end of the interview process, which lasted about one and half a year, it was decided that the interviews were sufficient in quantity and quality of obtained data. The process was terminated with a total of 50 interviews in both Turkey and Europe. The interviews ranged from twenty-five minutes to one hour and forty-five minutes. Although most of the interviews were conducted face-to-face, there were also interviews conducted via telephone and online platforms due to the intensity of the workload and the Covid-19 pandemic conditions.

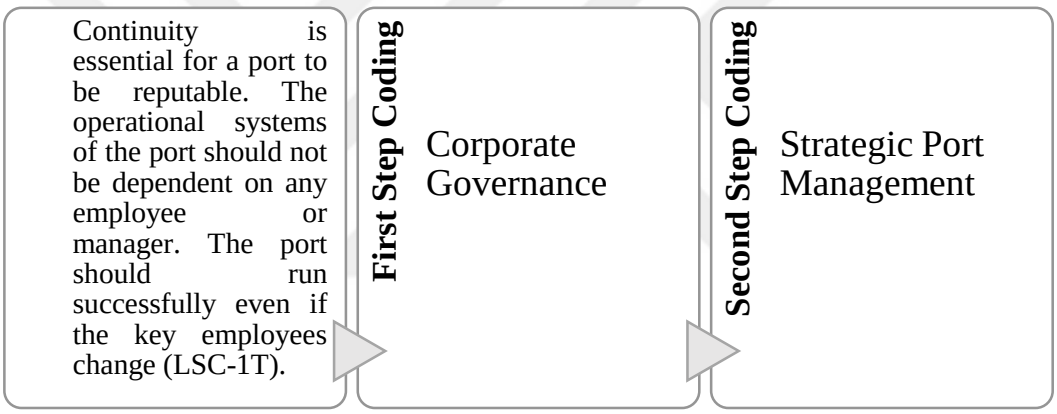
4.4.1.3.Data Analysis Technique

Content analysis, a basic qualitative research data analysis technique, aims to reach concepts and relationships that can explain the collected data. The basic steps in the content analysis are coding the data, finding the themes, organizing the codes and themes, examining the data in the light of the codes and themes, and revealing and interpreting the findings (Sığrı, 2021: 276). In this direction, the participants' permission was obtained before any interviews were recorded. Afterward, the

recordings were transcribed, and the quotations crucial for showcasing participants' opinions were translated into English.

In order to compare the coding structures and confirm the validity of the process, the researcher and the advisor independently coded the interviews. Especially while coding determinants of corporate reputation in container ports, studies by Bucak et al. (2020), OConnor and Vega (2019), Ha et al. (2017), Brooks and Schellinck (2015), and Brooks and Pallis (2013) were used for confirmation of the coded determinants. The researcher handled the rest of the coding process. Figure 12 illustrates an example of the coding process.

Figure 12: Illustration of the Coding Process



Source: Prepared by Author

In order to do successful qualitative research, it is necessary to stay close to the subject being discussed. The way to do this is to deal with high volumes of data. However, the large volume of data can cause various difficulties for researchers in the data analysis process (Pettigrew, 1990). Therefore, the use of software in qualitative research is increasing. Computer Assisted Qualitative Data Analysis Software (CAQDAS) are tools that aid manual coding, assist in analyzing and interpreting data, and potentially contribute to qualitative research (Sığrı, 2021: 319). Qualitative data analysis software MAXQDA 20 has been used in the coding process. In the MAXQDA 2020, MaxMaps Creative Coding Section, Code Co-Occurrence Model and Code-Matrix Browser for the visualizing the resulting codes and relationships.

4.4.1.4.The Rigor of the Study

In general, the most important factor that gives scientific studies the characteristic of being scientific is the studies' credibility, which has been recorded in the literature as validity and reliability in social sciences (Üzümcü, 2016). The issue of validity and reliability in qualitative research is not as concrete as in quantitative research. Because while qualitative research emphasizes the "quality" of the investigated facts and situations, quantitative research highlights the "numerical characteristics" of the investigated phenomena and conditions (Sığrı, 2021: 135). Nevertheless, many methods increase validity and reliability in qualitative research.

In qualitative research, reliability is related to the reproducibility of research results. External reliability is about whether research results can be obtained in the same way in similar environments, and internal reliability is about whether other researchers can reach the same results using the same data (Sığrı, 2021: 137). In this direction, what has been done to increase external reliability in the study is summarized as follows:

- The method and stages of the research are described in detail,
- It is clearly explained what is done in data collection, processing, analysis, and interpretation,
- Results are correlated with the data presented,
- The researcher kept her individual assumptions, biases, and orientations under control,
- Raw data is appropriately stored for others to review.

To sum up, in order to increase external reliability, the researcher constantly confirmed the data obtained, explained her position, research questions, and sample clearly, and made a clear and distinct coding (LeCompte and Goetz, 1982). Strategies applied to ensure the internal reliability of the study can be summarized as follows:

- Coding of the interviews was carried out separately by both the researcher and supervisor,
- The opinions of others were also taken at various stages of the study. In particular, three different experts in the relevant field were consulted while coding for the question of corporate reputation determinants of container ports,

- Data sources were diversified by collecting data from multiple container port stakeholders,
- The analysis results were presented at the thesis follow-up meetings and the 20th International Business Congress (2021) and were confirmed by other researchers.

In qualitative research, validity is related to the measurement tool accurately measuring the phenomenon it aims to measure (Kirk and Miller, 1986). Reporting the collected data in detail and clearly explaining how the researcher reached the conclusions is an essential measure of validity in qualitative research (Yıldırım and Şimşek, 2016). The path followed to increase the internal validity of the study can be summarized as follows:

- The in-depth data collection process was passed, which took about one and a half years and long-term interaction. In this way, whether the data collected was seasonal or not was also confirmed,
- Participants with different experiences and characteristics working in different departments were included in the research, and sample diversity was made,
- The similarities and differences between the findings obtained from the study and the results of the related studies in the literature are discussed.
- The quotations of the participants supported the findings from the interviews.

The factors taken into account to ensure external validity related to the generalizability of the research results are as follows:

- It was studied with a large sample to allow generalization (50 participants in total),
- The research sample and processes are explained in detail in a way that can be compared with other studies,
- With the help of the Maxqda 2020 software, the study results are described and visualized in detail to allow comparisons.

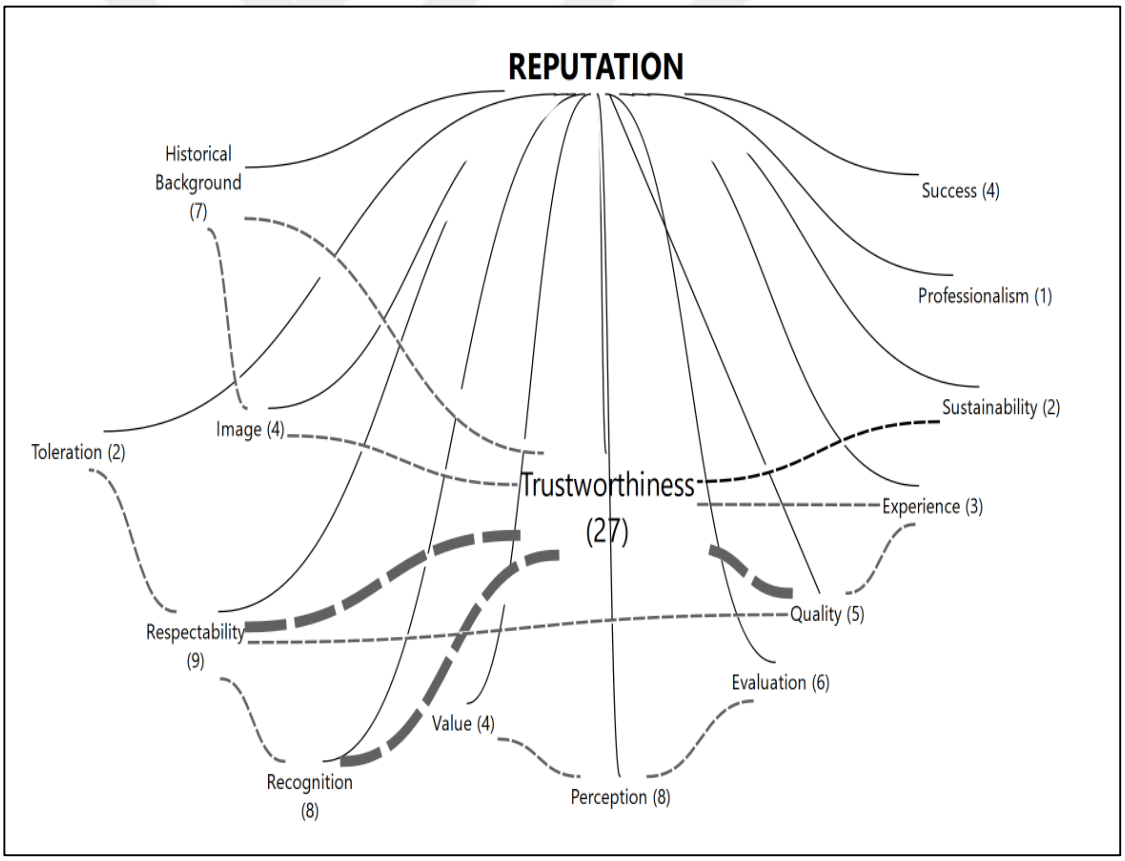
Finally, throughout the study, great attention was paid to the principles of scientific ethics and honesty in research. The participants' names and those of their companies were kept private. The names of other companies mentioned by the participants in their examples were likewise kept private. The participant's replies requested to be "off the record" were not transcribed or quoted. Lastly, research ethics

approval was obtained from Dokuz Eylül University Social and Human Sciences Research and Publication Ethics Committee.

4.4.1.5.Findings of the Semi-Structured Interviews

As mentioned in section 4.3, the first questions of the semi-structured interviews are about the definition of the concepts of reputation and corporate reputation. It is revealed that the concepts of reputation and corporate reputation are associated with "trustworthiness". Figure 13 shows the variables in the reputation concept.

Figure 13: Variables in Reputation Concept



Source: Prepared by Author

As shown in Figure 13, the concept of reputation is most associated with "trustworthiness". Also, "respectability", "recognition", "perception", "historical background", "evaluation", and "quality" have been the most heard expressions about this question. "trustworthiness", "respectability", "recognition", and "quality" terms are often used together when describing the concept of reputation.

When the participants' answers are examined, it appears that the explanation argues that corporate reputation is a strategic asset because use generates trustworthiness and therefore influences positively corporate business performance. The following statements represent the relationship between reputation and trustworthiness.

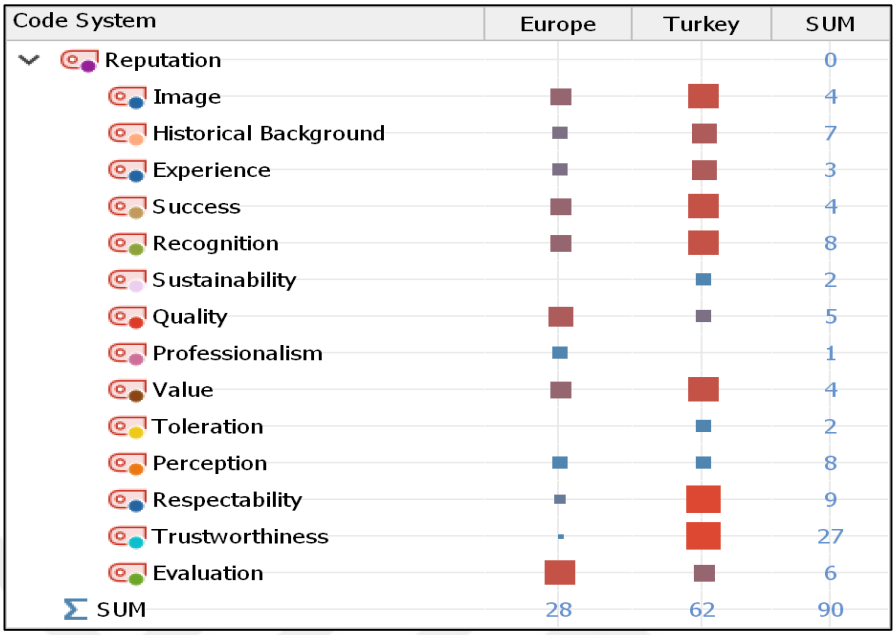
> **F-2T:** "*When I think of a reputation, I think of trustworthiness. Reputation can actually be fully trusted. Even a person who does not know you at all in your work says that this person is trustworthy and honest when your name is mentioned. I cannot think that an untrustworthy person or institution is reputable. Of course, the greater the reputation, the greater the success."*
> **P-5T:** *"When I think of a reputation, the first thing that comes to my mind is to make a promise and a commitment. It is the promises made that increase the reputation. As long as promises are kept, reliability increases, and as reliability increases, reputation increases. As reputation increases, so does success. Thus, more extensive promises and commitments begin to be made."*

Similar to the above statements, the terms "respectability" and "historical background" are closely associated with the concept of reputation. It is seen that reputation is a sign of respect and crucial for building a good reputation. The following statements underline these concepts.

> **A-2T:** *"When I say reputation, the first thing that comes to my mind is my respectfulness in the eyes of the other party and the respectfulness I arouse in the other party. I think the basis of this respectfulness is trust. If a relationship of trust is formed, this respectfulness is then formed in my eyes. Therefore, I attribute the concept of reputation to respectfulness and trust."*
> **P-4E:** *"From my point of view, for an individual or company or corporation, reputation can be defined as what did it on past which brings the credit for your present and future. It is a kind of heritage and credit."*

In addition, some minor differences were observed in the definitions of the reputation of respondents from Turkey and Europe. Differences in the perspectives of respondents from Turkey and Europe regarding definitions of reputation are shown in Figure 14.

Figure 14: Differences in the Perspectives of Respondents from Turkey and Europe



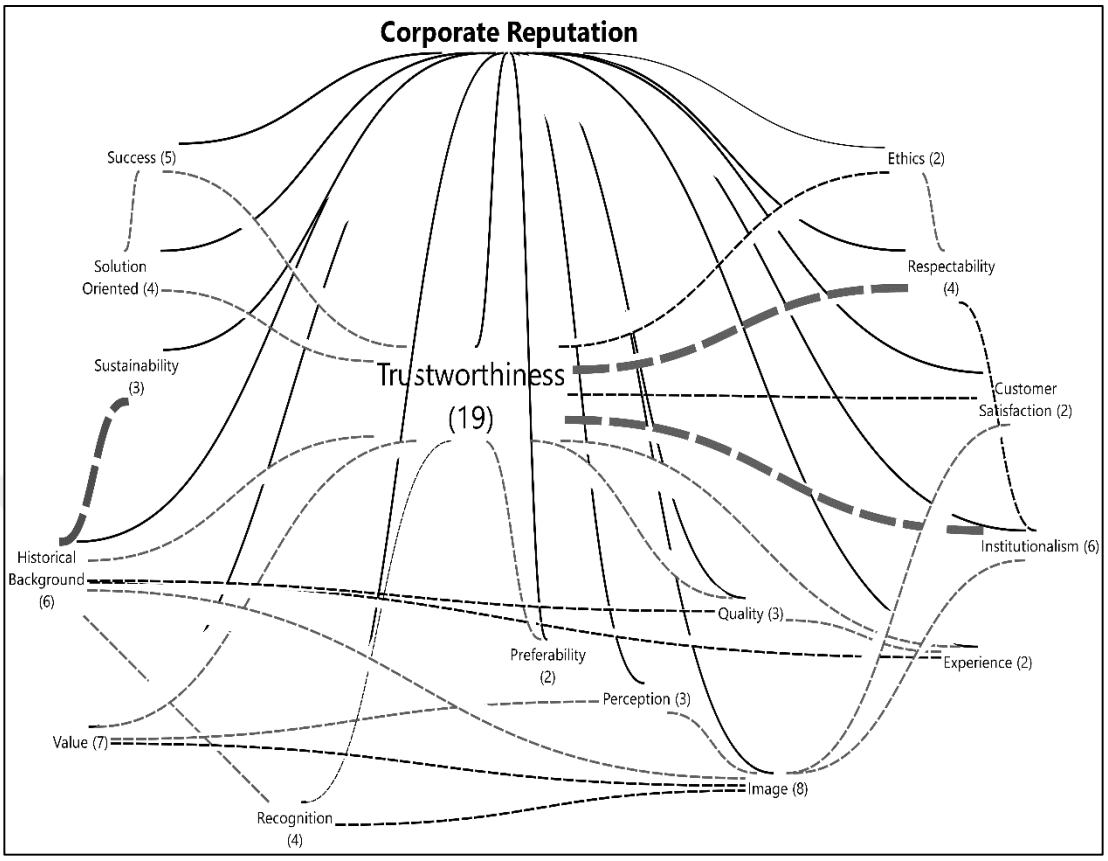
Source: Prepared by Author

As shown in Figure 14, while the participants from Turkey emphasized the concepts of "trustworthiness" and "recognition" while defining the concept of reputation, the participants from Europe emphasized the concepts of "evaluation" and "quality". The following statement of the representative shipping line from Europe can be an example of this difference.

> ***LSC-2E:*** *"Reputation is extremely important and, first and foremost, an indicator of quality. You know, made in Germany is a reputation. This gives to you a certain feeling about the person or company. Also, everybody knows, taking as example Germans, we have high quality. We are very punctual. So these features bring reputation."*

When the participants' opinions on the concept of corporate reputation are examined, it is seen that there are similar concepts in their definitions. Figure 15 shows the variables in the corporate reputation concept.

Figure 15: Variables in Corporate Reputation Concept



Source: Prepared by Author

As shown in Figure 15, the concept of corporate reputation is most associated with reliability, similar to the reputation concept. Also, “institutionalism”, “value”, “success”, “recognition”, and “solution-oriented” have been the most heard expressions about this question. “Trustworthiness”, “respectability”, “institutionalism”, “sustainability” and “historical background” terms are often used together when describing the concept of corporate reputation. Different from the reputation concept, it can be seen that “institutionalism”, “solution-oriented”, and “preferability” come to the forefront in the definition of corporate reputation.

When the definitions of the corporate reputation of the participants are examined, the concept of “institutionalism”, which is frequently coded with “respectability” and “trustworthiness”, stands out different from the reputation definitions. This situation is thought to be an indication that the concept of corporate

reputation is associated with organizational legitimacy. The following statement of the import-export company representative from Turkey can be an example of this difference.

> **I-2T:** *"When it comes to corporate reputation, instead of a structure that can change with the instant decisions of the people, I think of a structure that is governed by specific rules and circulars. What does it mean that the company does not work in the boss's mood. Institutions that are determined by internal procedures, they are institutions with a corporate reputation for me. They are companies that I can represent myself better as an employee."*

Similarly, since unethical behaviors are thought to affect corporate reputation negatively, some participants also associated the concept of corporate reputation with ethics. The following statements underline this situation.

P-4T: "Ethics also has a great place in the concept of corporate reputation. I think the institution's reputation must comply with ethical principles in competition, working conditions, and fair and transparent management approach, that is, in all business areas."

Participants were also asked whether the concepts of reputation and corporate reputation mean the same thing. However, when the answers were examined, no agreement was found. It has been observed that some participants perceive the concept of reputation directly as individual reputation. Also, while some participants thought that reputation and corporate reputation were the same, others considered them as two separate concepts. The following statements show this situation.

LSC-2E: "Individual reputation and institutional reputation are definitely separate from each other. You can have an excellent individual reputation as a person. However, you can obviously work in a company with a bad reputation. But these two conditions can affect each other."

> **A-5T:** *"I think the points that make up the concepts of reputation and corporate reputation are the same. Just as reputation is our position in the eyes of other people, corporate reputation is the value and position of an institution in the eyes of customers. Experience is important in both definitions. Corporate reputation is felt in line with customer experiences."*

Determining corporate reputation variables in terms of container ports is one of the main aims of this research. For this reason, the participants were also asked about what are the determinants of a container port's reputation. The participants' answers were analyzed in detail, and 6 main and 23 sub-criteria identified the

reputation of container ports. The main criteria that determine the reputation of a container port are as follows: “Effective Communication and Cooperation”, “Port and Supply Chain Integration”, “Strategic Port Management”, “Port Performance”, “Physical and Technical Characteristics”, and “User’s Satisfaction”.

According to the answers of participants, it can be seen that for a container port to be considered reputable, it is crucial to convey the necessary information to its users and stakeholders in the most straightforward way and as soon as possible, to constantly review its relations with its stakeholders and to pay attention to social media platforms. Table 12 presents expressions about the “effective communication and cooperation” main criteria.

Table 12: Expressions of “Effective Communication and Cooperation” Criteria

	Expressions	**Quotes from Interviews**
Effective Communication and Cooperation	Effective Communication	Information sharing can be considered a separate reputation factor. For example, the quality of the information shared and its timely and direct sharing is critical in information sharing. These are the issues that shippers will have trouble with. They want to communicate directly (A-3T).
		Communication quality is also vital for the reputation of a port. It is necessary to provide a complete flow of information at the right time. The port must be ready to communicate and provide information at any time (F-3E).
	Relations with Stakeholders	Successful ports consist of several stakeholders. The municipality, port authority, shipping company, terminal operator, and logistic provider contribute to the port reputation. For this reason, relations with stakeholders are also essential. (P-4E)
	Social Media Usage	Recently, we have been paying attention to the use of social media. We also try to use social media to be optimistic regarding communication and reputation with the social environment (P-2T).

Source: Prepared by Author

When the participants’ opinions on the determinants of corporate reputation in container ports are examined, it is revealed that the location of the ports, their compatibility with other modes of transport, and the services they provide to port users

are also significant for reputation. Table 13 presents expressions about the “port and supply chain integration” main criteria.

Table 13: Expressions of “Port and Supply Chain Integration” Criteria

	Expressions	**Quotes from Interviews**
Port and Supply Chain Integration	Geographic Location	Geolocation includes both customer proximity and government policies. Geographical location, therefore, affects a port's trade volume and reputation. For example, if some ports are in war zones or in risky places, we can give the customer 7 days as standard free time in Turkey, but we have to provide at least 21 days and 30 days there. This means that I will not be able to put new cargo in that container for 21 days or 30 days, and I can not earn money. Therefore, in my eyes, the reputation of that port is decreasing (LSC-6T).
		Geographic location definitely affects reputation. For example, why are the ports in the Kocaeli Körfez region so active? Because they are close to the industry. The regions' export and import capacities also shape the ports' success. This, in turn, affects their reputation, either positively or negatively (F-1T).
	Intermodal Links and Reachability	Hinterland connections and intermodal connections are also crucial for container port reputation. I want to tell my memory. I was a third officer, ten years ago. I was in a general cargo vessel from Iran to Hamburg. But I was wondering why we are going to Hamburg. Because destination of the cargo was France. I asked my captain, and he told me that normally ships do not want to go to France ports because they do not have sufficient hinterland connections. But when you are loading or discharging cargo in Hamburg, the cargo will be available to the consignee one day earlier to discharge in Dunkirk (France port). It is amazing. When discharging cargo in some other countries, your cargo will be delivered sooner than in your home country. So, hinterland connections are really important factors. Crucial for the port reputation. If you see the reputable European ports, they all have the best hinterland connections. Especially Rotterdam and Hamburg (P-4E).
	Range of Services	For us, a reputable port does not only mean the ship's berthing and loading and unloading operations. Reputation requires much more services than that. Internal services, and value-added services, of which are very important for reputation (LSC-1E).

Source: Prepared by Author

According to the participants' answers, it can be seen that for a container port to be considered reputable, strategies and corporate governance approach applied in the port are essential. The port's marketing, pricing, competitive strategies, and fair, transparent, responsible, and accountable management of the port in accordance with ethical principles and ownership structure are significant for its reputation. Table 14 presents expressions about the "strategic port management" main criteria.

Table 14: Expressions of "Port and Supply Chain Integration" Criteria

	Expressions	**Quotes from Interviews**
Strategic Port Management	Corporate Governance	I think container lines will be more interested in this issue. Because if the port is part of a global terminal operator, the line will think like this; I also work with this terminal in Mexico, and my business is going very well there. Let's say that a global operator's terminal was also opened in Izmir. That line thinks that I will not have any problems with this port here as well. And it chooses the line with this perceived reputation (A-3T).
		Even when buying a simple stock, we research the institution to which the stock belongs. We investigate if it has a promising future, a corporate structure, and who its owners are. This also applies to ports. Customers also explore the port, especially if it's their first time doing business. When companies with strong corporate governance acquire or partner with a port, it positively impacts that port's reputation. Lines prefer that port because they will be trustworthy (LSC-2T).
		Seriousness, respect, having a deep-rooted corporate culture, and managing the port within the framework of predetermined rules rather than instant personal decisions bring dignity to the port (P-3T).
	Port Strategies	It is also very important which competitive strategies the port follows, marketing strategies, and whether a port has a transparent and fair pricing strategy (A-1T).
		The port needs to implement flexible, transparent, and competitive pricing strategies to gain a reputation. Because if this does not happen, even if all other features of the port are complete, its reputation will be meaningless (I-1E).
	Mission and Vision	The mission and vision of the port form the basis of the strategic management approach. Reputation management is also critical in this context, as it is a strategic management phenomenon (F-3T).

Source: Prepared by Author

The participants of the semi-structured interviews frequently emphasized the performance of the port employees, the environmental and social sustainability of the port, its financial position and investments, the efficiency and productivity of the port operations, and the performance of the managers in terms of their own responsibility and their contribution to the port where they work in terms of container ports' reputation. Therefore, the port performance main criteria were created, which include organizational, sustainability, operational, managerial, and financial performance criteria. The details of expressions about the "port performance" main criteria are presented in Table 15.

Table 15: Expressions of "Port Performance" Criteria

	Expressions	**Quotes from Interviews**
Port Performance	Organizational Performance	Employees are the most critical part of a port. The right personnel must work in the right job. The fact that the employees are educated and equipped, their quality, manners, communication styles, and their belonging to the institution they work for effect the reputation of the port. Because both the problem-free port operations and the establishment of effective communication depend on the quality of the employees (LSC-5T).
	Sustainability Performance	Another factor is Co2 footprints. We are working with a zero co2 transport chain. This is a new factor, maybe. We are advertising our customers about container terminal handling with zero co2 footprints. Because we are working on making everything more efficient and also more climate efficient. We are compensating buying certificates about sustainability (F-2E).
		I think social responsibility projects are also an important indicator lately. It is also essential for integrating and accepting the port with the local people. For example, if sailing races are a significant event in that region, the port should support and sponsor the sailing races. Thus, it will increase its reputation in the eyes of the region's people (P-2T).
	Financial Performance	Reputation depends on the level of port development. The development of a port also depends on its financial situation. Knowing a port's financial status and investment plans is important for its reputation (P-5E).

	Operational Performance	As an exporter, it is crucial for me that the container enters the port without any problems and is loaded onto the ship, the number of containers handled by the port, number of line calls, the speed of ship operations, that is, how long it takes to get a ship ready for departure. Therefore, the reputation of a port depends on these factors (I-3T).
	Managerial Performance	Port managers' backgrounds, leadership styles, and experiences are also essential. Do they have a solution-oriented management style, how do they manage crises, and can they offer unique solutions? These are very important for the reputation of a port (I-1T).

Source: Prepared by Author

According to the participants' answers, it can be seen that for a container port to be considered reputable, physical and technical characteristics are essential. The port's technological capability, equipment quality, draft, capacity, infrastructure, and superstructure are significant for its reputation. Table 16 presents expressions about the "physical and technical characteristics" main criteria.

Table 16: Expressions of "Physical and Technical Characteristics " Criteria

	Expressions	**Quotes from Interviews**
Physical nad Technical Characteristics	Technology and Innovation	The subject of information technologies is now on the agenda. For example, EDI is available in many companies, but not all of them are of the same quality. Or websites. While you can handle a lot of procedures on websites with ports very easily, like VCM, on websites of many ports, it is so complex that it makes the customer say that this is not a reliable way of doing business (A-3T).
		The port's innovative vision and focus on technology are also crucial to its reputation. As the technological infrastructure of the port develops, its competitiveness increases. This also reflects to the reputation (P-3T).
	Port Capacity	The size of the port area is also a very important factor. How much space does the port have? How big are the loading areas and storage areas? A port where customers wait in line for days cannot be reputable because there is not enough capacity (LSC-6T).
	Draft	Ports that handle large vessels are reputable. It often advertises this in the ports now. For this, of course, the draft must be appropriate (LSC-1T).

	Number and Quality of Equipment	When evaluating a port, we also look at the quality and modernity of the equipment used by the port and whether it is in sufficient numbers. It is very important how many containers you can fill at the same time. Because this also affects the speed of operation and efficiency (P-1T).
	Port Infrastructure and Superstructure	Warehouses, customs areas, pier lengths, status of administrative buildings and offices, in-port traffic, connection with city traffic, signaling... All these factors also affect the reputation of the port. Because even if your employee quality is good, if you cannot provide the appropriate infrastructure, your operational performance will decrease. This affects your reputation as well (F-3E).

Source: Prepared by Author

The participants of the semi-structured interviews frequently emphasized the level of meeting the expectations and demands of the port users, finding solutions to the problems experienced, and managing this process by taking into account the feedback and being known by many port users. Therefore, the user's satisfaction main criteria were created, which include port service quality, customer relationship management, customer value, and recognition. The details of expressions about the "user's satisfaction" main criteria were presented in Table 17.

Table 17: Expressions of "User's Satisfaction " Criteria

	Expressions	**Quotes from Interviews**
User's Satisfaction	Port Service Quality	The service quality and the customer satisfaction that comes with it are also very important for the reputation of the ports. Here I would like to emphasize the quality and free of problems port operations. The port's fulfillment of its commitments regarding speed and time and keeping its promise in every sense are also within this scope (P-6T).
	Customer Relationship Management	If the problems we experience with the port are resolved quickly, if our requests and expectations are taken into account, if solutions and conveniences specific to our company are shown, the reputation of the port will increase in our eyes (F-5E)
	Customer Value	Is the port customer-oriented, can it understand what we want, does it have an effort beyond our wishes? For example, last year, port X officials came to us and said that you are a very special customer

		for us. Let's set up and use a common system for your company. Let's follow all our works and processes together. This got us very excited. It didn't happen, but it was nice to hear that. Of course, this port has come to a very special position for us in terms of reputation (I-2T).
	Recognition	Ports that are well-known in the market, work with many stakeholders, spread over a wide area, have a global infrastructure and cooperation are more reputable in my eyes. I would love to work with these ports more. Because I trust more and find it less risky (LSC-3E).

Source: Prepared by Author

As seen in the tables above, determinants of corporate reputation are examined in the 6 main and 23 sub-criteria. When the criteria obtained are examined according to their frequencies, it is observed that port performance criteria which include organizational performance, sustainability performance, financial performance, operational performance, and managerial performance, are the most affecting criteria for the corporate reputation of a container port. As shown in Table 18, operational and sustainability performance are the two most important criteria affecting container port reputation. Physical and technical characteristics are the second most important criteria for the container port's reputation. The number and quality of equipment, the port capacity, which includes the availability of hinterland and port area, and port infrastructure and superstructure have determined the main variables of container ports' physical and technical characteristics. Strategic port management is also significant criteria for port reputation. Especially, participants indicated that the corporate governance concept is closely related to port reputation. According to the interview results, the geographical location variable became prominent in terms of port and supply chain integration. The majority of the participant stated that the location of the port affects the reputation of the port in terms of both proximity to the customers and cultural and socio-political aspects. And finally, in the user's satisfaction section, port service quality and customer relationship management are the main variables for the container port's reputation. The details of frequencies about criteria are presented in Table 18.

Table 18: Corporate Reputation Criteria in Container Ports

Codes and Sub Codes	Number of Codes
Effective Communication and Cooperation	**32**
Effective Communication	20
Relations with Stakeholders	8
Social Media Usage	4
Port and Supply Chain Integration	**53**
Geographic Location	38
Intermodal Links and Reachability	11
Range of Services	4
Strategic Port Management	**64**
Port Strategies	16
Mission and Vision	6
Corporate Governance	42
Port Performance	**158**
Organizational Performance	38
Sustainability Performance	49
Financial Performance	6
Operational Performance	52
Managerial Performance	13
Physical and Technical Characteristics	**93**
Technology and Innovation	18
Draft	11
Port Infrastructure and Superstructure	19
Port Capacity	22
Number and Quality of Equipment	23
User's Satisfaction	**67**
Port Service Quality	36
Customer Relationship Management	16
Customer Value	8
Recognition	7

Source: Prepared by Author

According to the results, it is observed that the answers differ according to the stakeholders. Differences in the perspectives of different container port stakeholders regarding determinants of container port reputation are shown in Figure 16.

Figure 16: Differences in the Determinants of Corporate Reputation from Different Stakeholders

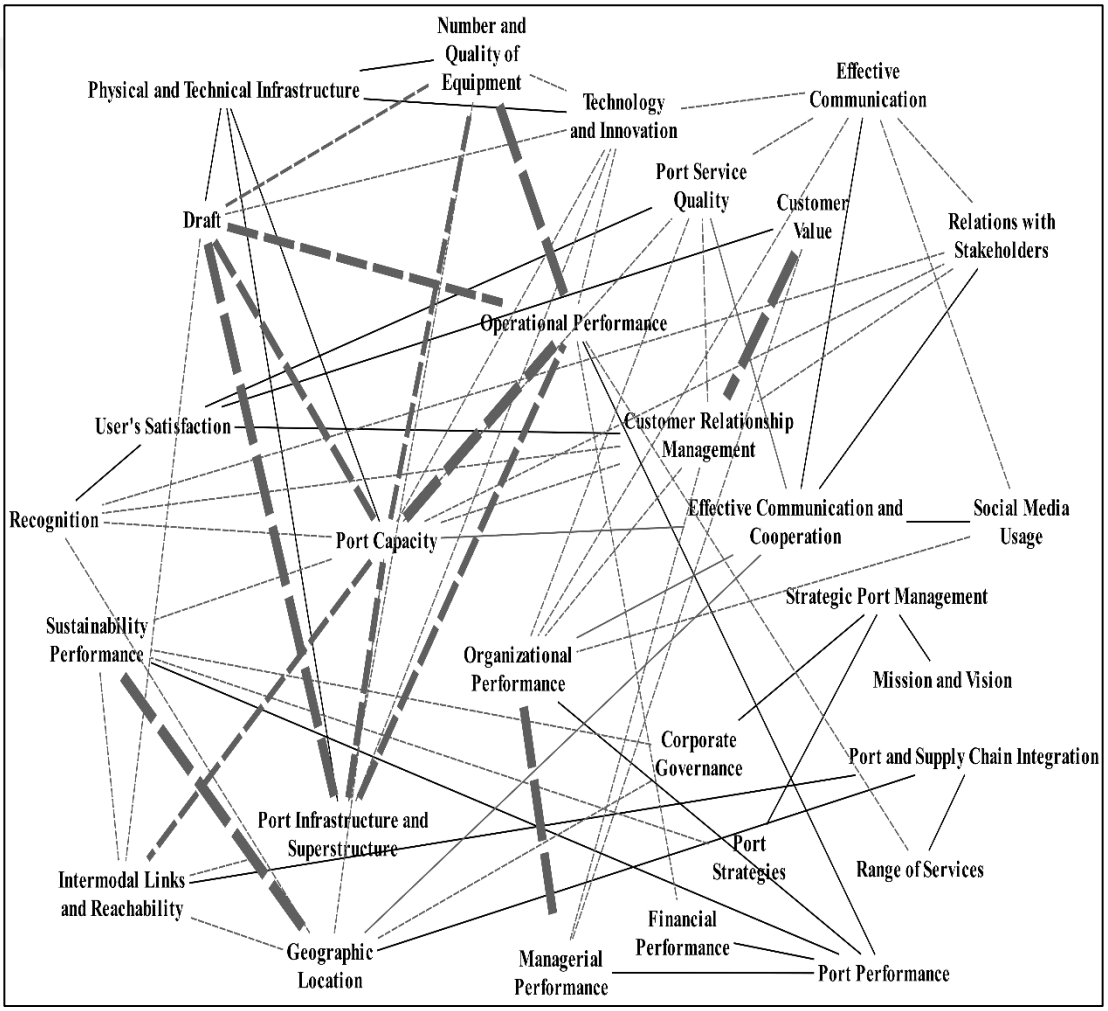
Source: Prepared by Author

Figure 16 shows that import-export company representatives mainly focus on effective communication, managerial performance, intermodal links and reachability, port strategies and recognition. It shows that access to the correct information and the approach of the container port managers are crucial in terms of reputation for the cargo owners. Similarly, academicians emphasized port strategies and intermodal links and reachability. Differently, participants from container ports focused on port service quality, customer value, corporate governance and relationships with stakeholders criteria. Furthermore, participants from freight forwarders emphasized effective communication, organizational performance, operational performance and port

capacity. Lastly, it has been observed that the participants from liner shipping companies focus more on physical and technical characteristics and port performance regarding reputation.

In addition, the co-occurrence of corporate reputation determinants in container ports is visualized as a network structure for evaluation relationships between criteria. Figure 17 illustrates the Co-Occurrence Model of determinants of corporate reputation in container ports.

Figure 17: Variables in Reputable Port Concept

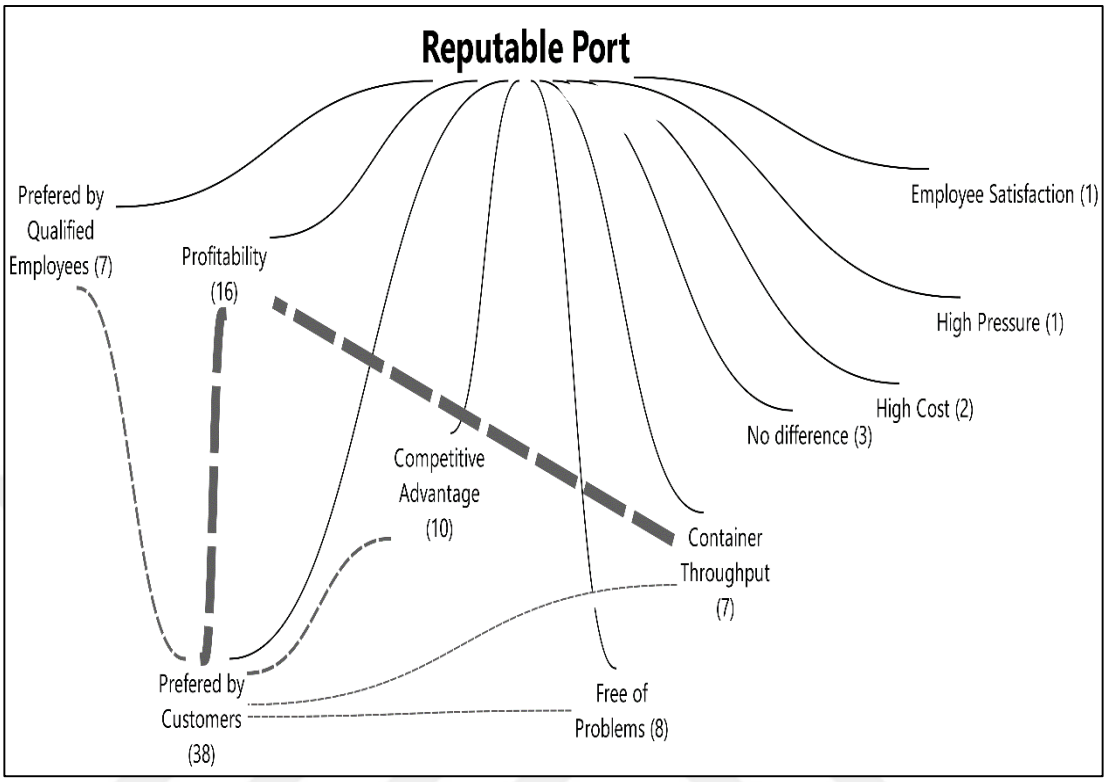


Source: Prepared by Author

In Figure 17, co-occurrence frequencies of determinants of corporate reputation are reflected by the line width. According to Figure 17, it can be seen that operational performance, port capacity, draft, number and quality of equipment and port infrastructure and superstructure criteria are often coded together. This situation means that operational performance and physical and technical characteristics are often referred to together for the reputation of a container port. In addition, it is seen that geographical location and sustainability performance are often coded together. This situation shows that when the reputation of a container port is considered, the port's geography and the sustainability vision and policies are associated with each other. Similarly, managerial and organizational performance are also co-coded. This case shows that the performance of employees and managers often complement each other for the reputation of a container port. Moreover, customer value and customer relationship management are often coded together. This indicates that understanding customer expectations for the reputation of a container port and offering solutions to the problems experienced are considered together.

In the last question of the semi-structured interviews, the participants were also asked about the effects of reputation on container ports. Figure 18 shows the variables in the reputable port concept.

Figure 18: Variables in Reputable Port Concept



Source: Prepared by Author

As shown in Figure 18, most participants believe that reputable ports are more selectable than disreputable ports. Also, it can be seen that reputable ports are preferred by customers and qualified employees, have a competitive advantage, are profitable, and are free of problems. The following statements of the port representative from Turkey can be an example of these positive effects.

P-7T: "If a port has gained a reputation for customer satisfaction and service quality, customers no longer look for another service. Reputable ports come to mind first when there is a new business opportunity. No customer wants to risk this process for their valuable cargo."

F-1E: "Customers want to work with reputable ports. They want to give their containers to arrange because they know they will be handled well without unnecessary problems. And also it automatically causes profitability and economic growth of the port."

However, the effect of reputation on ports was not seen positively by all participants. One participant stated that the obligation to protect its reputation could put pressure on the port and may adversely affect the port in the long run. Also, two participants believe that reputable ports are high-cost ports. The following statements show this situation.

A-2T: "Ports that are deemed reputable also have an obligation to protect their reputation. You will sink even more when you become a disreputable port from a reputable port. This situation naturally creates pressure on the ports. Ports need to spend more effort."

P-5E: "Since reputable ports use higher quality equipment and have more qualified personnel, they are expected to charge higher prices for berthing, pilotage services, local charges, etc."

Finally, three participants stated there is no difference between reputable and disreputable ports in the business environment. The following statements of Turkey's shipping line company representative can be an example of this point of view.

LSC-3E: "I cannot say that reputation always affects ports positively and makes them preferable. In today's economic conditions, the most important thing is cost. This is also the case for ports. So I do not think reputation matters much for ports."

In the quantitative part of the study, the criteria obtained from the qualitative part were analyzed by the ANP (Analytical Network Process) method, and priority levels of identified determinants of corporate reputation and the degree of influence were evaluated.

4.4.2. ANP Research

People make decisions to solve many problems, and they remain in a situation where they encounter conflicting goals. It is becoming increasingly difficult to interpret and judge situations by adhering to a single criterion (Zeleny, 1982).

Decision making is a process that is frequently encountered in business management. Simon (1960) approaches decision making as synonymous with the whole management process in his classic work on the science of management decision

making. Decision making processes in management science include the following stages (Koçel, 2003: 78):

- Identifying the goal or problem,
- Evaluating goals and problems and determining priorities,
- Identification of selection alternatives,
- Evaluation of alternatives,
- Determining the selection criteria and performing the selection.

Decision-making processes focus on solving a fundamental problem. The decision ensures that the obstacle encountered in a particular issue is removed. Choosing the best alternative considering competing and conflicting criteria is expressed as decision making (Saaty, 1986: 841). Usually, more than one criteria in decision-making processes affect the decision. The decision maker will need various information and technical data. This information can be summarized as follows (Saaty, 2000):

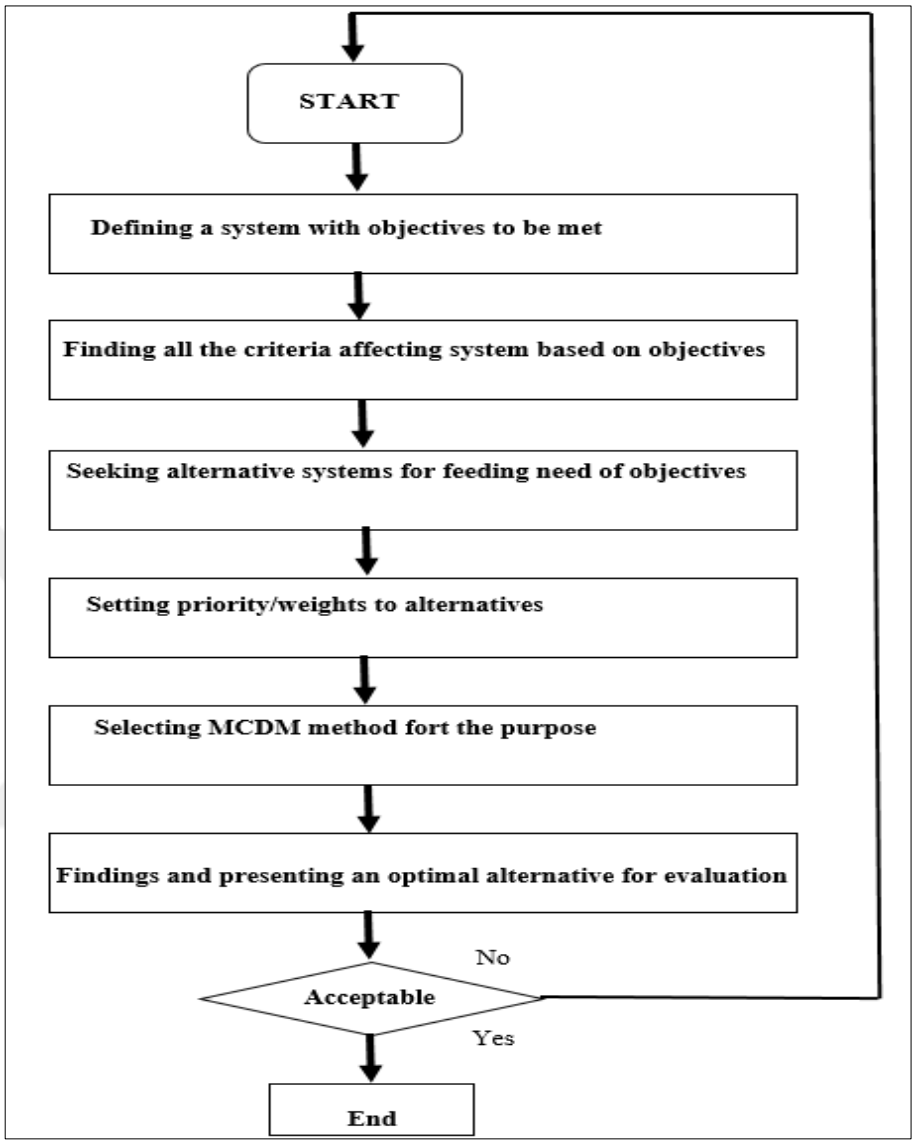
- Detailed information about the problem to be decided,
- Persons and actors involved in the decision,
- The aims of these persons and actors,
- Factors affecting the results,
- Time, scenario, and constraints.

Many analytical models have been presented to aid in the resolution of conflicts. Multi Criteria Decision Making (MCDM) is the most common among the many dispute resolution techniques. MCDM is the process of choosing among many measurable and non-measurable criteria within the framework of different purposes (Pohekar and Ramachandran, 2004: 367). According to Lahdelma et al. (2000), MCDM is defined as a set of approaches that support planning and decision-making processes by gathering, storing, and analyzing various types of data to provide a viable solution to a multi-criteria problem. Similarly, Duckstein and Opricovic (1980) stated that, MCDM can be a complicated and dynamic process with two management and engineering levels. The managerial level establishes the objectives and selects the best option (Opricovic and Tzeng, 2004). For example, a business wants its products to be valued in different markets in a way that gives it the highest return. A firm has to decide whether to distribute the raw materials and materials it uses at different

production levels in a way that provides the lowest cost and highest efficiency. Or as an employer, when recruiting new personnel, applicants will be asked to choose the most suitable one for the job (Tabucanon, 1988: 3-4). When all these explanations and situations that can be encountered in real life are examined, multi-criteria decision-making methods are seen that it is in a very important position among individuals, institutions, and organizational charts.

MCDM is the most widely used decision-making method in various fields such as production management, quality management, energy, environment, supply chain management, technology management, information management, construction and project management, strategic management, tourism management, security, and risk management. The foundation of MCDM methods started in 1950-1960, and its development accelerated in the 1980s and early 1990s. (Mardani et al., 2015: 518-519). MCDM techniques play a significant role in decision theory and analysis. The decision maker problem entails evaluating a finite number of options to determine the best one, rank them from best to worst, arrange them into preset homogenous groups, or explain how well each alternative fits all criteria simultaneously. MCDM methods are the basis for increasing the quality of decisions by making the decision making process more rational, clear and efficient (Zavadskas and Turskis, 2011:403-405). A common procedure for MCDM analysis is shown in Figure 19.

Figure 19: A Common Procedure for MCDM Analysis



Source: Kumar et al., 2017: 598

The multi criteria analysis problems can be categorized into three types: problems of multi criteria choice, problems of multi criteria ranking and problems of multi criteria sorting (Vassilev et al., 2005: 2). To solve these problems, many MCDMs have been developed. (Guitoni and Martel 1998). MCDM methods have similar features in terms of conflict between criteria, incomparable units and selection of alternatives. Furthermore, depending on the functions, a certain problem can be

tackled in a range of methods. Every method or model has its own set of limitations and drawbacks (Kumar et al., 2017: 598). Table 19 shows the MCDM methods that used according to the problems.

Table 19: MCDM Methods

Choice Problems	**Ranking Problems**	**Sorting Problems**
AHP	AHP	AHPSort
ANP	ANP	
MAUT/UTA	MAUT/UTA	UTADIS
MACBETH	MACBETH	
PROMETHEE	PROMETHEE	FlowSort
ELECTRE I	ELECTRE III	ELECTRE-Tri
TOPSIS	TOPSIS	
Goal Programming		
DEA	DEA	

Source: Adopted from Ishizaka and Nemery, 2013

ANP (Analytical Network Process) is one of the essential multi-criteria decision-making approaches. This method was suggested by Thomas L. Saaty (1980), also known as the father of the Analytic Hierarchy Process (AHP). The ANP is a generalization of the AHP that considers the dependencies of the hierarchy elements. Because many decision problems include the interaction and dependence of higher-level elements of a hierarchy on lower-level elements, they cannot be structured hierarchically. As a result, rather than a hierarchy, ANP is represented by a network (Saaty, 2008a: 2).

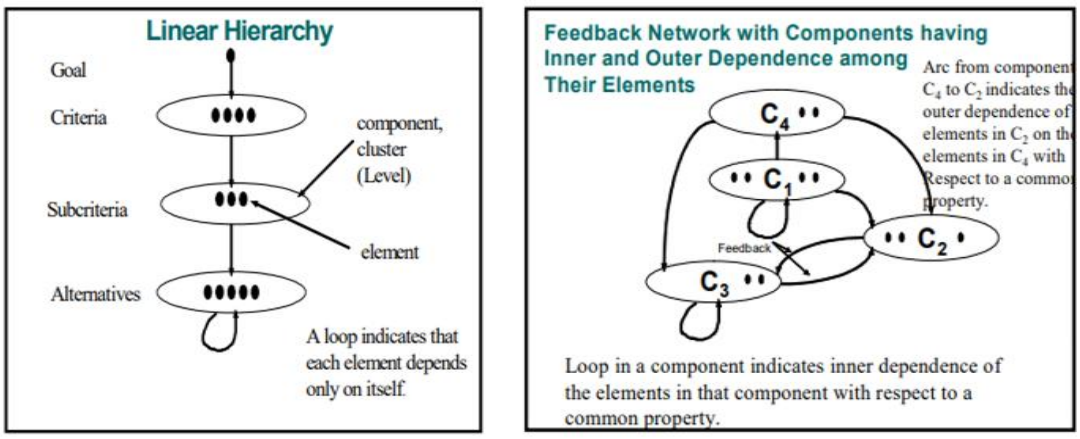
The ANP provides a broad framework for dealing with decisions that do not assume the independence of higher level elements from lower level elements or the independence of elements within a level. The ANP employs a network rather than a hierarchy; hence there is no need to describe levels. The ANP emphasizes the concept of influence. The ANP is a valuable tool for forecasting and portraying a variety of competitors, their presumed interactions, and relative strengths to influence a decision (Saaty, 1999: 1). The ANP method, widely used in decision-making processes and many areas, is also frequently preferred for ease of use (Singh et al., 2012: 17).

The ideas that form the basis of ANP are listed as follows (Saaty, 1999:2):

- ANP is built on AHP.
- AHP does not consider dependencies. ANP, which is a particular case of AHP, goes beyond AHP in that it considers dependencies.
- Dependency within clusters (inner dependence) and inter-cluster dependency (outer dependence) are of interest to ANP.
- The looser network structure of the ANP allows any decision problem to be represented in a hierarchical structure without worrying about what comes first and what comes next.
- The hierarchy has a linear structure with goals at the top and alternatives at the bottom. ANP, on the other hand, is a nonlinear construct that deals with sources, cycles and sinks.
- ANP prioritizes the criteria and the clusters to which the criteria belong, as is often necessary for real life.
- While dealing with different criteria, ANP is based on a hierarchy or network of control, thus leading to the analysis of benefits, opportunities, costs and risks. Based on its control elements, the ANP follows a parallel path in which the human brain combines data from different senses, for example, the thalamus.

The difference between a linear hierarchical model and a nonlinear network structure is shown in Figure 20.

Figure 20: Structural Difference Between a Linear and a Nonlinear Network



Source: Saaty, 1999: 5-6.

To sum up, ANP is a more general form of the AHP however, ANP has some other advantages over AHP such as (Yellepeddi, 2006):

- Allowance for interdependency and complex relationships
- Looser and nonlinear network structure
- Real world representation of the problem by making use of clusters
- Allows consideration of tangible and intangible criteria in decision making

ANP is a method that enables to make the right choice among the alternatives and at the same time reveals the relationship between the priority levels of the criteria and each other. The steps of ANP can be summarized as follows (Chung, 2005; Dağdeviren and Eraslan, 2008, Kheybari et al., 2019; Önder, 2021):

- Step 1 Determination of the decision problem: The decision-maker should state the problem clearly. In addition, criteria and sub-criteria related to the problem are determined.
- Step 2 Identifying dependencies and creating the model: The dependencies of clusters and criteria with each other and within themselves (internal or external) are determined. Thus, the problem is decomposed into a rational system like a network. The opinion of experts can obtain the structure through brainstorming or other appropriate methods (Kang et al., 2012: 1479).
- Step 3 Making pairwise comparisons: Decision makers are asked to pairwise compare the elements in a questionnaire.
- Step 4 Constructing the supermatrix and obtaining the limit matrix: Before calculating priorities, first local priority vectors must be converted to the supermatrix formation. The priority weights of alternatives can be found in the limit matrix.

The majority of port management strategies are created to achieve the management objective. Because a strategy may help or hurt the interests of many stakeholder groups, decisions should be clear and based on reasonable criteria. Another annoyance is that it is frequently impossible to be aware of decision makers' preferences (Lahdelma et al., 2000). In such cases, MCDM can be utilized to help the port management process make better decisions (Garcia-Morales, 2015: 31). Moreover, as port management becomes market-oriented and actor-centered (i.e., multi-stakeholder environment), port research and investigation need to focus on the firm level (i.e., actor-, terminal, firm-centered) rather than just on the port level (Woo

et al., 2012). A comprehensive analysis of port business helps port managers to make better decisions on port operations (Ha et al., 2017). Therefore, researchers have carried out various studies using the ANP method on issues such as port selection, port performance, and port management. In Table 20, details about the study subjects, samples, and criteria used are given.

Table 20: Port Related Articles with ANP

Authors (Year)	Aim	Methodology	Sample	Results
Munim et al., (2021)	Aim of the study is proposing an approach to forecast a transshipment port's competitiveness on the basis of market share.	ANP	23 executives of international liner shipping's local offices, international freight forwarders and feeder carriers. Authors received 20 complete and useable responses, which represent 16 companies, including local agents of Maersk, CMA CGM, COSCO, MSC, Yang Ming and PIL.	Main criteria include Maritime Connectivity, Port Facilities, Port Efficiency, Cost Factor, Port Policy and Management, Information Systems and Green Port Management. According to the results, Singapore is the most competitive port and Tanjung Pelepas is the least. Also, all ports perform below expectations in green port management practices.
Tezcan, and Kuleyin, (2021)	Aim of the study is evaluating the operations managers' competencies in terms of environmental sustainability in ports,	ANP	The relationship between competency criteria and the clusters were evaluated by an influence analysis survey which was applied to three academicians who have expertise in port management. Then, the criteria that are found to be in a relationship together according to the network were compared to each other. This was performed via a "pairwise comparisons survey" applied to six experts who are in charge of management in executive-level in five different container ports/terminals in Turkey	Main criteria include **Technical Competencies** (Emergency procedures, Safety management, Regulations / procedures, Security management, Basic vocational knowledge), **Business Competencies** (Management skill, Field knowledge / expertise, Open-minded), **Information Management Competencies** (Analytical thinking, Problem Solving), **Leadership Competencies** (Decision making, Teamwork ability and management, Action-oriented, Target-oriented, Delegating). Results showed that "management skill", "emergency procedures", and "safety management" are the most primary competencies of port operations manager (POM) in terms of port environmental sustainability performance (PESP).

Authors (Year)	Aim	Methodology	Sample	Results
Sukmanee et al., (2020)	Aim of the study is determine the Appropriate Area for the Development of Dry Port in Thailand .	ANP	5 experts in each field of research (Nakhon Ratchasima, Nakhon Sawan, Chachoengsao, Chiang Rai, Khon Kaen)	Main criteria include System connection transporting with the rail system and other transportation systems, Urban planning and area development, Environmental suitability, Size and shape of the plot of land, Cost of land procurement and development. According to the results, Nakhon Ratchasima is the most suitable area to build a dry port of Thailand and system connection transporting with the rail system and other transportation systems is the most primary criteria for dry port selection.
Munim et al., (2020)	Aim of the study is identifying the Appropriate Governance Model for Green Port Management Ports in the Indian Ocean Rim	ANP and Best-Worst Method	Three port executives who have five or more year experience (27 years, 7 years, 9 years)	Main criteria include Port Governance Models (Service Port, Tool Port, Landlord Port, Private Port), Green port management practice, Internal management, Sustainable operation, Environmental pricing, Green technology and Supply chain collaboration. private port governance would be the most viable followed by landlord, service and tool port governance models. Environmental pricing is the least important among the five GPM practices both in ANP and BWM.
Augustin et al., (2019)	Aim of the study is determining an optimum location for dry port development in Togo.	ANP	A field survey conducted through questionnaires and interviews in order to retrieve adequate data from group of experts which were analyzed in establishing the ANP model using Super Decision software.	Main criteria include Economic & Social Factors, Environmental Factors, Accessibility Factors, Location Factors and Political Factors. According to the results, location factors and economic & social factors are the most vital factors for the dry port location in Togo. Also Sokodé area has the highest ideal score of 0.94 among other selected alternatives.

Authors (Year)	Aim	Methodology	Sample	Results
Durán, et al., (2018)	Aim of the study is identifying the relevant criteria for strategic, business and operational decision-making in the Port Community, in the technological and risk contexts.	ANP and DEMATEL	The relevant strategic objectives or alternatives are defined and selected according to the opinion of two port experts from the Ministry of Transport and Telecommunications belonging to the State of Chile. Also, a port expert from the Port Community are registered in the Superdecision software that applies the ANP.	Main criteria include **Technological Innovation**, **Coordination of Actions**, **Compliance** and **Influence on Other Actors**. The nodes most valued by the experts refer to the investment in technological innovation that improves the connectivity of the export and import logistics chains, the transfer of information among the actors and the documentary control of the activities carried out in the external and internal port terminals.
Ha et al., (2017)	Aim of the study is developing a new port performance measurement model by taking the perspectives from different port stakeholders.	DEMATEL and ANP	The qualitative PPIs were collected using questionnaire results obtained from three groups of terminal operators (TO), users (i.e., shipping lines and freight forwarders, PU) and administrators (i.e., port authority and government, AD). 10 experts for DEMATEL, 8 experts for ANP.	Port performance indicators are: **SA (supporting activities**; human capital-organization capital, information capital), **TSCI (terminal supply chain integration**; intermodal transport systems- value-added services-information/communication integration), SSS (safety and security), EVS (environment), **US (user satisfaction**; service fulfillment-service costs), **SG (sustainable growth**; safety and security- environment-social engagement). **CA (core activities**; output-productivity-lead time) and **FS (Financial strength**; profitability- liquidity and solvency). Results showed that, productivity is the most important principal-PPI, followed by output, lead-time, service fulfilment, information capital and profitability.

Authors (Year)	Aim	Methodology	Sample	Results
Lee et al., (2016)	Aim of the study is exploring key critical factors of waterfront port development (WPD) by applying analytic network process (and analytic hierarchy process to the Incheon and Bangkok ports.	AHP and ANP	Study comprises 45 experts from the government, industry and academia.	Main criteria include **Economic Function** (Land Value, Transformation of port/city interface, Contribution to regional economy, Profitability of WPD, Maritime clustering), **Port Function** (Port infrastructure, Security/safety, Connectivity, Efficiency/service, Green port), **Community Function** (Environments, Conservation, Quality of life, Accessibility), **City Branding** (Preserve/promote maritime heritage/history, Opportunities for national and international events within WPD, International landmark building(s), Infrastructure for city Branding). ANP ranking results showed four common key criteria of WPD exist among the top five (i.e., accessibility under community function; connectivity under port function; maritime clustering, and transformation of the port/city interface).
Hsieh et al., (2014)	Aim of the study is proposing a prototype model for assessing the vulnerability of an international commercial port based on interdependencies among fragile factors.	ANP	Eleven experts who fully understand port operations as well as impacts of failed infrastructures, including government officials, planners along with scholars in the social, industrial, transportation and disaster management fields, were invited to complete the ANP questionnaire.	Main criteria include **Accessibility** (Ground access system, Travel time, Shipping route density), **Capability** (Gantry crane capacity, Facility supportability, Wharf productivity), **Operational efficiency** (EDI connectivity, Turnaround time, Labor productivity, Berth occupancy rate), **Industrial cluster/Energy supply** (Investment growth, FTZ business volume, Electric power supply, Gas supply). According to the ANP results, the capacity and efficiency denoting the gantry crane capacity, facility supportability, wharf productivity, and turnaround time significantly influence the port vulnerability.

Authors (Year)	Aim	Methodology	Sample	Results
Onut et al., (2011)	Aim of the study is selecting the most suitable container port in the Marmara Region in Turkey.	Fuzzy ANP (FANP)	Decision makers are brought together from different areas such as, academicians, port authorities, ship-owners, freight forwarders and authorities from associations related with sea transportations.	Main and sub port selection criteria are : **Port location** (proximity to the import/export area, proximity of the feeder or hub port, proximity to the main navigation route), **Hinterland economy** (volume of import/export containers, volume of transshipment containers, frequency of ship calls), **Physical features of port** (infrastructure, port facilities and equipment**, Inter-modal links** (Railway, Highway, River), **Port efficiency** (container handling efficiency, port berthing time length, container yard efficiency, custom efficiency), **Cost** (port charge, inland transshipment freight rates), **Other** (port future development plan, personal relations, information services at port, port security, good reputation related to damage and delays). Seven alternative container ports located in the Marmara Sea which are Akport, Borusan, Gemport, Kumport, Mardas, Marport and TCDD Haydarpaşa is predetermined. The obtained results showed that the convenient one is Marport.

Source: Prepared by Author

The criteria used in the ANP research were created by analyzing 50 interviews with port stakeholders in the previous stage of the thesis. It has been observed that the obtained criteria are closely related to each other. Therefore, this study assumes that the criteria affecting a container port and its related clusters have internal and external dependencies. For this reason, it was decided to apply the ANP method to reveal the dependencies, reveal the network structure of the criteria and clusters, and determine the priority level of the criteria in terms of the reputation of a container port.

4.4.2.1.Determination of the Decision Problem and Criteria

The decision problem of the research was defined as "determining the priority criteria that determine the reputation of a container port and their importance levels." The reputation criteria used in the ANP application were obtained as a result of simplifying the criteria obtained from semi-structured interviews with different container port stakeholders by applying content analysis.

4.4.2.2.Determining the Dependencies of Container Port Reputation Criteria

ANP is built on a network that does not require a hierarchical structure between criteria, and this network structure emerges after the interaction of factors in clusters (Saaty, 1999: 1; Saaty, 2008a). Three types of dependencies can exist between criteria in ANP: "inner dependence," "outer dependence," and "feedback." While the dependence of the criteria in a cluster is defined as inner dependence, the dependence of the criteria in different clusters is defined as outer dependence; bidirectional dependency between two clusters is called feedback. Identifying dependencies is a critical and substantial phase of ANP. The correct creation of the network structure and the right outcome depends on the sensitivity at this stage. At this stage, the interaction of the criteria in all clusters with each other should be questioned. Expert opinions and/or previous studies are used to determine the interaction (Önder, 2021: 77-78).

In this study, expert opinion was sought to establish the model for the criteria affecting the reputation of a container port and to determine the interaction between the criteria. This process was carried out with three academicians who are experts in the field of port management. The blank version of Table 23 was filled by academicians and the interactions they agreed on were marked with an X. As a result of the evaluation of the data obtained from the experts, the impact matrix was obtained. The impact matrix provided the network structure and the ANP model.

4.4.2.3. Pairwise Comparisons

After the network structure of the criteria affecting the reputation of a container port was established, pairwise comparisons of the criteria that interact with each other were made. Pairwise comparisons are made by questioning the importance of the criteria relative to each other by using Saaty's nine-point priority scale (see Table 21) (Tzeng and Huang, 2016: 29).

Table 21: Pairwise Comparisons Scale

Intensity of Importance	**Definition**	**Explanation**
1	Equal	Two activities contribute equally to the objective
2	Weak or Slight	
3	Moderate	Experience and judgement slightly favour one activity over another
4	Moderate Plus	
5	Strong	Experience and judgement strongly favour one activity over another
6	Strong Plus	
7	Very Strong	An activity is favoured very strongly over another; its dominance demonstrated in practice
8	Very Very Strong	
9	Extreme	The evidence favouring one activity over another is of the highest possible order of armation

Source: Saaty, 2008b: 125

The criteria were compared using the "pairwise comparison questionnaire" (see Appendix 2). In this questionnaire, criteria found to be dependent as a result of the impact analysis were compared in terms of the degree of influence of the dependency. Comparisons were made as described below:

In an example where the criteria of “port strategies” and “mission and vision” are compared in terms of affecting the “corporate governance” criteria, first of all, when the reputation of a container port is considered, it is decided whether various port strategies or the mission and vision of the port affect the reputation of a container port more. Then, the degree of this effect is determined.

If the port strategies criteria are considered to be very strong important (7) according to the mission and vision criteria, the following should be marked:

Port Strategies	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	Mission and Vision

If the mission and vision criteria are considered to be moderately important (3) according to the port strategies criteria, the following should be marked:

Port Strategies	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	Mission and Vision

ANP has complex network structures with many relationships that are difficult to understand. For this reason, it is appropriate to make comparisons with experts who have sufficient experience and knowledge on the subject. In this study, the pairwise comparison questionnaire was administered to ten experts in senior management positions in container ports (see Table 22).

Experts were selected from container ports operating in different regions (Marmara, Mediterranean, Black Sea, Aegean) so that the reflection of regional differences in the study was tried to be prevented. Due to the workload of the experts and the Covid-19 pandemic restrictions, the surveys were carried out on various online platforms by making an appointment in advance, and information was given about the research and reputation criteria before filling out the survey.

Table 22: Descriptive Information of Experts

	Position	**Age**	**Education**	**Experience in the Maritime Business (years)**	**Experience in the Container Ports (years)**
1	Container Port General Manager	56	Master	22	22
2	Container Port General Manager	47	Master	25	25
3	Operations Manager	46	PhD	12	12
4	Sales Manager	46	Bachelor	19	14
5	Trade and Customer Relations Manager	45	Bachelor	15	7
6	Sales and Marketing Manager	45	Bachelor	21	22
7	Customer Relations Manager	43	Master	20	20
8	Trade Manager	42	Master	18	4
9	Digital Products and Commercial Manager	42	Bachelor	19	17
10	Trade Manager	39	Master	16	8

Source: Prepared by Author

In the creation of pairwise comparison matrices, it may be appropriate to use group decision to eliminate the biased attitude of the decision maker. Dyer and Forman (1992) suggested various ways to transfer group members' views to pairwise comparison matrices, such as providing consensus, voting and geometric mean of individual decisions (cited in Jharkharia and Shankar, 2007: 282). Since expert opinions are obtained in independent environments, unanimity, voting or consensus options were disabled in this study. Therefore, the geometric mean of the answers given by the experts to the comparisons was used while creating the pairwise comparison matrices.

4.4.2.4. Constructing the Supermatrix and Obtaining the Limit Matrix

The supermatrix is formed as a result of obtaining a stochastic structure from the data obtained from pairwise comparisons. The general form of the supermatrix can be described as follows:

Figure 21: The General Form of Supermatrix

$$
W = \begin{array}{c|c}
 & \begin{array}{cccccccc} C_1 & & & C_2 & & \cdots & C_m & \\ e_{11} & \cdots & e_{1n_1} & e_{21} & \cdots & e_{2n_2} & \cdots & e_{m1} \;\cdots\; e_{mn_m} \end{array} \\
\begin{array}{cc} C_1 & \begin{array}{c} e_{11} \\ e_{12} \\ \vdots \\ e_{1n_1} \end{array} \\ C_2 & \begin{array}{c} e_{21} \\ e_{22} \\ \vdots \\ e_{2n_2} \end{array} \\ \vdots & \begin{array}{c} \vdots \\ e_{m1} \\ e_{m2} \\ \vdots \end{array} \\ C_m & e_{mn_m} \end{array} &
\begin{bmatrix} W_{11} & W_{12} & \cdots & W_{1m} \\ W_{21} & W_{22} & \cdots & W_{2m} \\ \vdots & \vdots & \vdots\vdots\vdots & \vdots \\ W_{m1} & W_{m2} & \cdots & W_{mm} \end{bmatrix}
\end{array}
$$

Source: Tzeng and Huang, 2016: 29

The supermatrix represents the influence priority of an element on the left of the matrix on an element at the top of the matrix with respect to a particular control criterion (Saaty, 2008: 6). According to the Figure 21, where Cm denotes the mth cluster, emn denotes the nth element in the mth cluster, and Wij is the principal eigenvector of the influence of the elements compared in the jth cluster to the ith cluster. In addition, if the jth cluster has no influence on the ith cluster, then Wij = 0 (Tzeng and Huang, 2016: 30).

After forming the supermatrix, the weighted supermatrix is derived by transforming all column sums to unity exactly. This step is very similar to the concept of a Markov chain for ensuring the sum of these probabilities of all states is equal to 1. Next, weighted supermatrix raised to limiting powers with below equation to get the global priority vectors or so-called weights (Tzeng and Huang, 2016: 31):

$$\lim_{k \to \infty} W^k$$

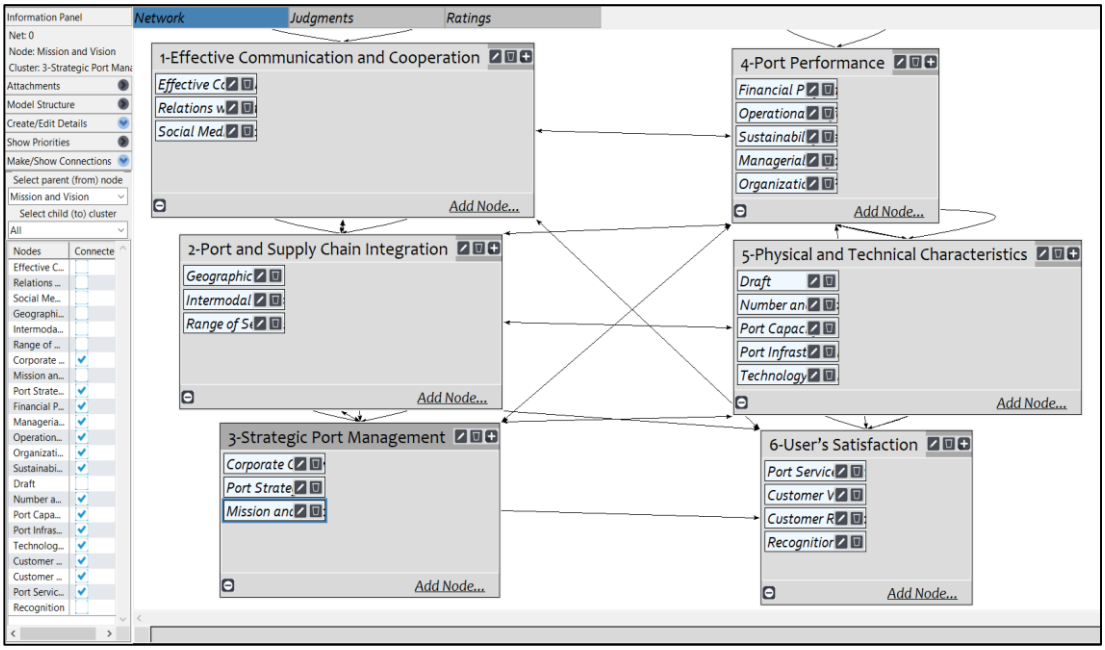
In this study, the calculation of supermatrix, weighted supermatrix and limit matrix values was performed using Super Decisions 3.2 computer software.

4.4.2.5. Super Decisions Multi-Criteria Decision Making Data Analysis Program

In this study, version 3.2 of the Super Decisions program was used to create the research model and analyze the data of the ANP research. Super Decisions is the software used by Thomas L. Saaty to implement ANP, a mathematical theory used in decision processes. This software aims to create an ANP model for the decision problem and to obtain results by making judgments about it. The software provides convenience for calculating supermatrix, weighted supermatrix and limit matrix values, which require complex mathematical operations and long times, and determining the priority levels of the criteria.

The use of the software starts with entering the criteria/nodes and the clusters they create into the program. First, clusters are created and the criteria within these clusters are processed. As seen in Figure 22, after this process, the dependencies of the criteria, which were determined as a result of the impact analysis, are entered into the program, and the ANP model is created.

Figure 22: Entering Criteria Dependencies into the Program

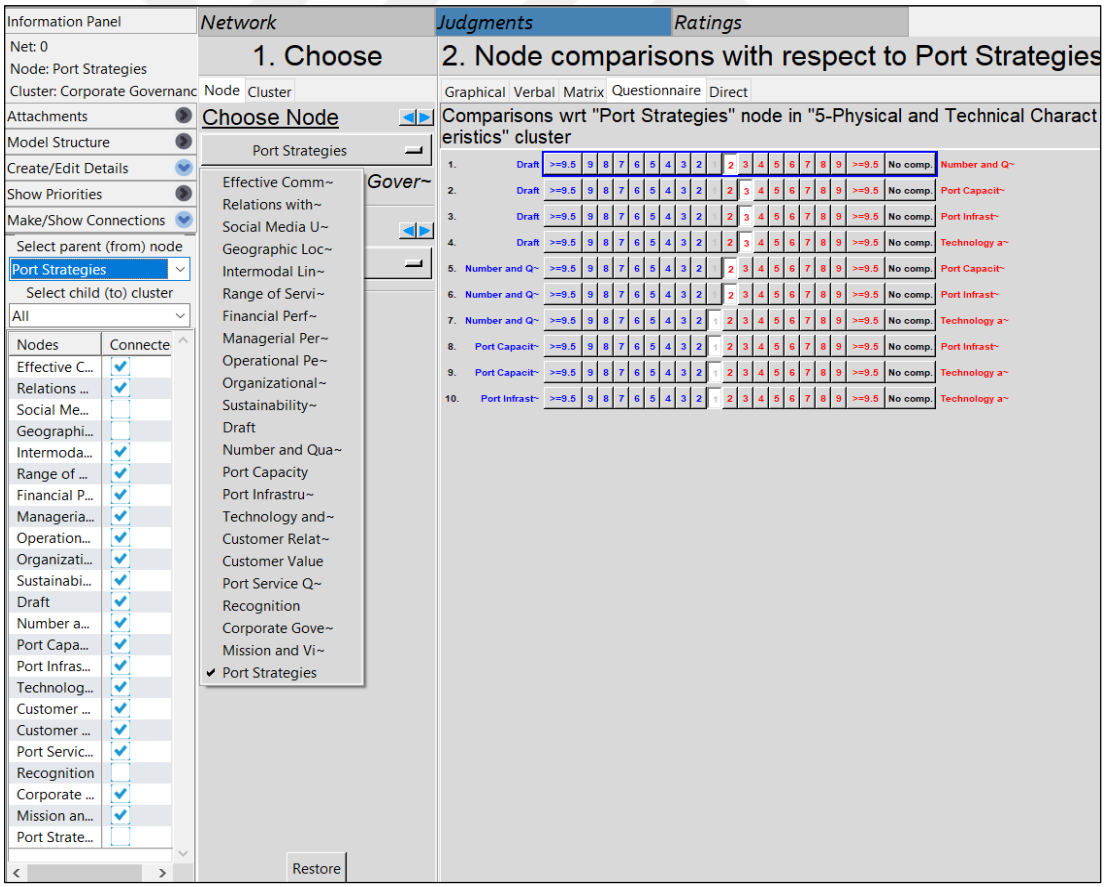


Source: Super Decisions 3.2. Software

Entering the dependencies of the criteria into the program is carried out under the “Make/Show Connections” tab from the “Information Panel” on the left. From the window opened under this tab, the relevant criteria is selected and the checkboxes of the other criteria that this criteria is related to in the impact analysis are marked.

When the connections are entered, the model is created. The program determines which criteria will be compared according to the resulting model. To see the comparisons, select the “Judgments” tab from the top menu. Once the tab is open, the “Questionnaire” tab underneath will show the pairwise comparisons that will be processed for each criterion. Data from pairwise comparison surveys is processed here. To change the compared criteria, choose from the pop-up window under the “1.Choose” panel (see Figure 23).

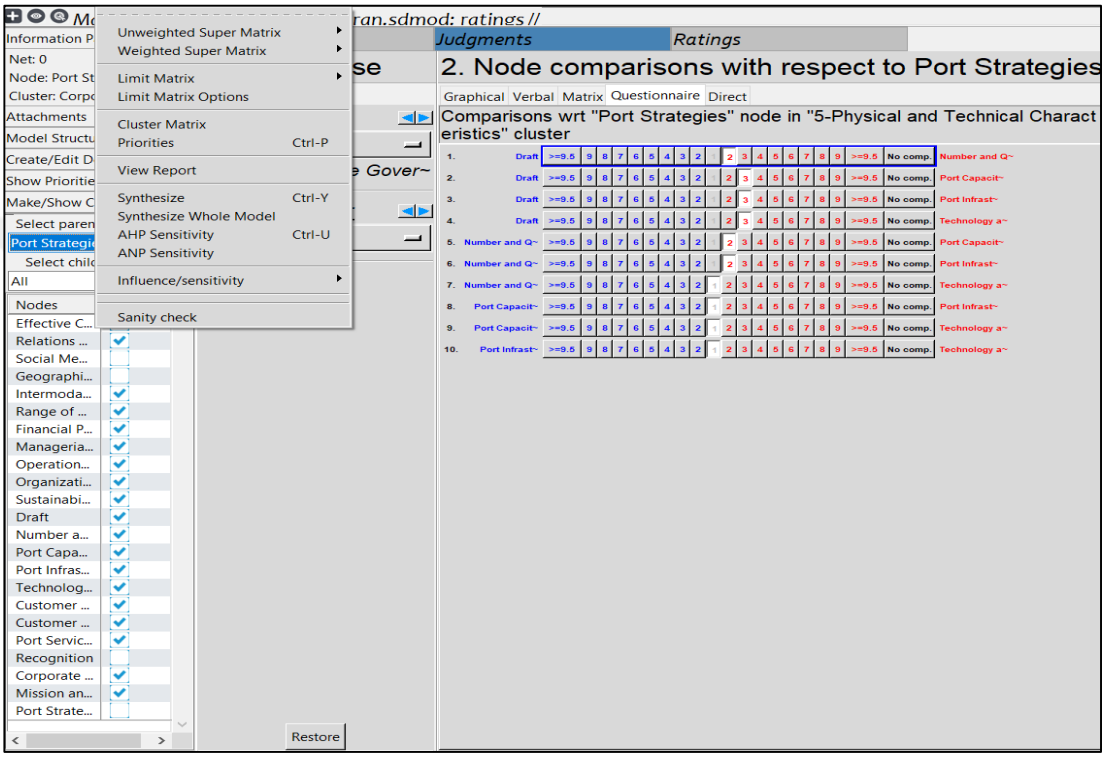
Figure 23: Entering Pairwise Comparisons into the Program



Source: SuperDecisions 3.2. Software

Figure 24 shows that after the pairwise comparisons are entered, the "Computations" tab is selected from the main menu. Supermatrix, weighted super matrix and limit matrix values can be seen under this tab. Also, the priority values of the criteria can be accessed from this tab.

Figure 24: Making Calculations on the Program



Source: Super Decisions 3.2. Software

4.4.2.6. Findings of ANP Research

In this section, findings related to ANP stages such as creating the impact matrix, creating the model, pairwise comparisons, inconsistencies, limit matrix and priority levels of the criteria are explained in detail.

4.4.2.6.1. Creating the Impact Matrix

The impact matrix that emerged as a result of the impact analysis in which the experts evaluated the dependencies of the criteria is given in Table 23.

The effects of the criteria in the left column of the impact matrix on the criteria in the upper row are indicated by the “X” sign in the box where they intersect. For example; The U4 reputation criteria are affected by the E1, E2, E3, P1, P2 and P5 reputation criteria, but not from the other criteria.

Table 23: Impact Matrix

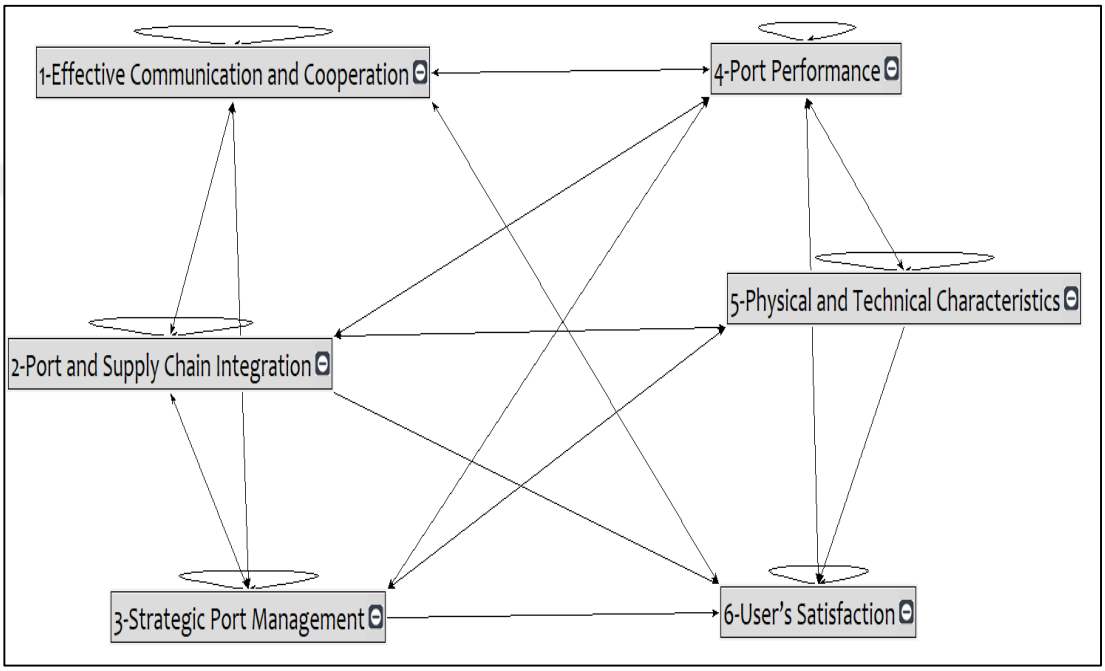
		E1	E2	E3	I1	I2	I3	S1	S2	S3	P1	P2	P3	P4	P5	T1	T2	T3	T4	T5	U1	U2	U3	U4
Effective Communication	E1		X	X			X	X		X	X	X	X	X	X						X	X		X
Relations with Stakeholders	E2			X			X			X	X	X	X	X	X						X	X		X
Social Media Usage	E3	X	X																			X		X
Geographic Location	I1		X			X	X	X	X			X	X	X			X	X	X	X				X
Intermodal Links and Reachability	I2				X		X	X				X	X	X				X	X		X		X	X
Range of Services	I3					X		X	X			X	X	X		X	X	X	X	X	X		X	X
Port Strategies	S1	X	X			X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Mission and Vision	S2							X		X	X	X	X	X	X	X		X	X	X	X	X	X	
Corporate Governance	S3	X	X	X				X	X		X	X	X		X						X	X	X	X
Organizational Performance	P1									X		X	X	X	X						X	X	X	X
Sustainability Performance	P2		X							X	X		X	X	X	X					X	X	X	X
Financial Performance	P3					X	X	X			X	X		X		X		X		X				
Operational Performance	P4							X			X	X	X		X						X			
Managerial Performance	P5	X					X	X		X	X	X	X	X							X	X	X	X
Technology and Innovation	T1						X	X			X	X	X	X	X		X	X	X	X	X		X	X
Draft	T2				X									X				X	X					X
Port Infrastructure and Superstructure	T3						X				X	X	X	X	X				X	X	X			X
Port Capacity	T4				X	X	X	X					X	X				X		X	X			X
Number and Quality of Equipment	T5						X	X			X	X	X	X					X		X			X
Port Service Quality	U1										X		X									X	X	X
Customer Relationship Management	U2	X	X	X									X								X		X	X
Customer Value	U3	X	X									X	X								X	X		
Recognition	U4	X	X	X							X	X			X									

Source: Prepared by Author

4.4.2.6.2. Creation of the Research Model

The impact matrix revealed the inner, outer and feedback dependencies of the clusters and criteria. As a result of the processing of these dependencies into the Super Decisions program, the ANP model was obtained (see Figure 25).

Figure 25: ANP Model for Container Port Reputation Criteria



Source: SuperDecisions 3.2. Software

According to the formed ANP model, it has been revealed that there are mutual outer and feedback dependencies between all clusters and each cluster also have inner dependencies within itself.

4.4.2.6.3. Pairwise Comparisons Results

At this stage, the geometric mean of the answers given by the ten experts to the pairwise comparison questionnaire was taken using Microsoft Excel. Then the obtained values were processed into the Super Decisions program. As a result of this process, a supermatrix which shows the comparisons was obtained (see Appendix 3).

After the supermatrix is created, the comparison results obtained on the basis of clusters and nodes are given below (see Table 24).

Table 24: Results on Pairwise Comparisons of Clusters

Clusters	Effective C. and C.	Port and S.C.I	Strategic Port M.	Port P.	Physical and Tech. Chr.	User's Satisfaction
Effective Communication and Cooperation	18,7%	12,8%	12%	12,1%	0%	34,4%
Port and Supply Chain Integration	24,5%	13,5%	15%	14,2%	20%	0%
Strategic Port Management	18,7%	12	12%	12,2%	15,4%	0%
Port Performance	25,9%	16,1%	15,4%	15,5%	28,2%	44,6%
Physical and Technical Characteristics	0%	38%	38,7%	38,1%	27,2%	0%
User's Satisfaction	12,2%	7,6%	6,9%	7,9%	9,2%	21%
Total	100%	100%	100%	100%	100%	100%

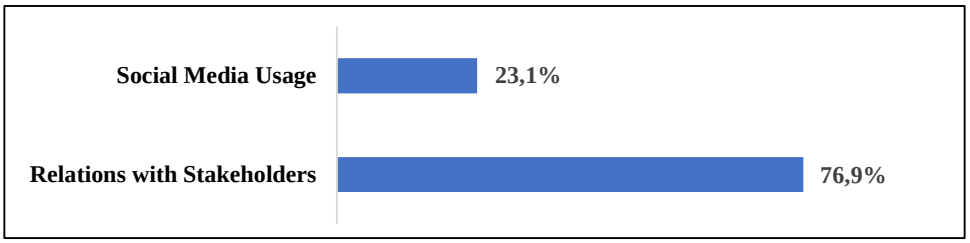
Source: Prepared by Author

When Table 24 is examined, it is seen that "port performance" is the most prioritized reputation cluster in terms of "effective communication and cooperation", "physical and technical characteristics" and "user's satisfaction". However, "physical and technical characteristics" is the most prioritized reputation cluster in terms of "port and supply chain integration", "strategic port management" and "port performance".

The level of influence of reputation criteria from other reputation criteria has been examined on the scale of clusters and the effect of each cluster has been shown in the relevant figure (see Figure 26-Figure 93).

When the effect of "effective communication and cooperation" cluster criteria on "effective communication" criteria is examined in Figure 26; it can be seen that "relations with stakeholders" have an effect of 76,9% and "social media usage" have an effect of 23,1%.

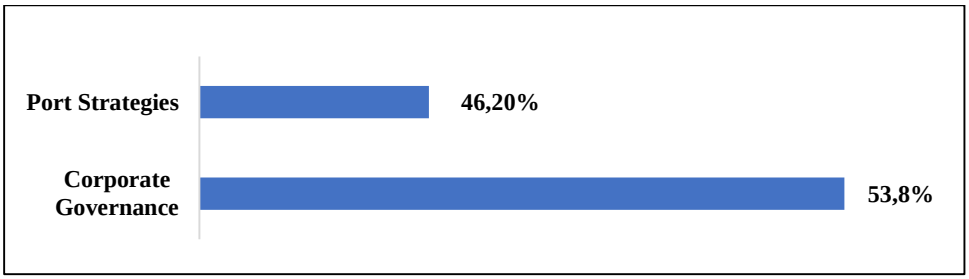
Figure 26: Effect of Effective Communication and Cooperation Cluster on Effective Communication Criteria



Source: Prepared by Author

When the effect of "strategic port management" cluster criteria on "effective communication" criteria is examined in Figure 27; it can be seen that "corporate governance" has an effect of 53,8% and "port strategies" has an effect of 46,2%.

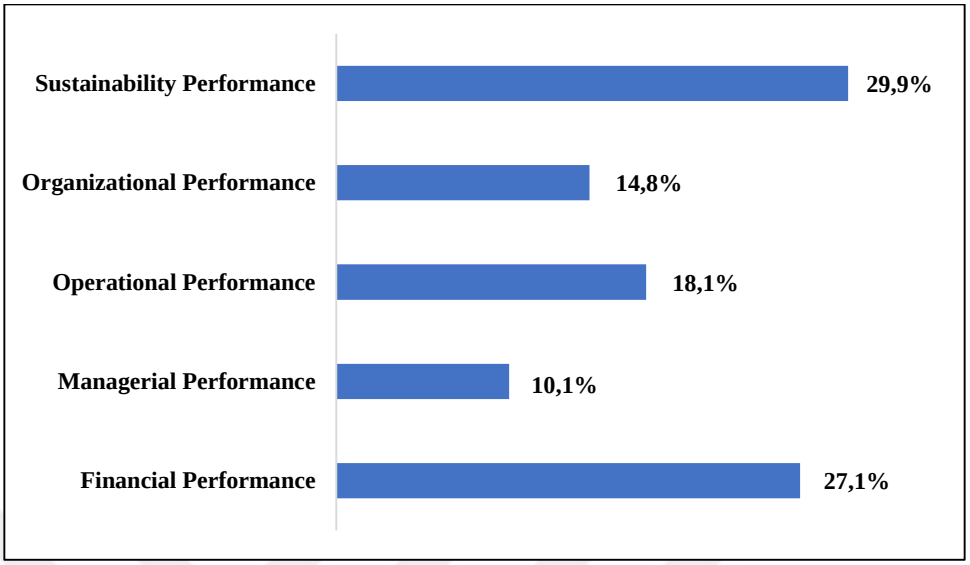
Figure 27: Effect of Strategic Port Management Cluster on Effective Communication Criteria



Source: Prepared by Author

When the effect of "port performance" cluster criteria on "effective communication" criteria is examined in Figure 28; it can be seen that "sustainability performance" has an effect of 29,9%, "financial performance" has an effect of 27,1%, "operational performance" has an effect of 18,1%, "organizational performance" has an effect of 14,8% and "managerial performance" has an effect of 10,1%.

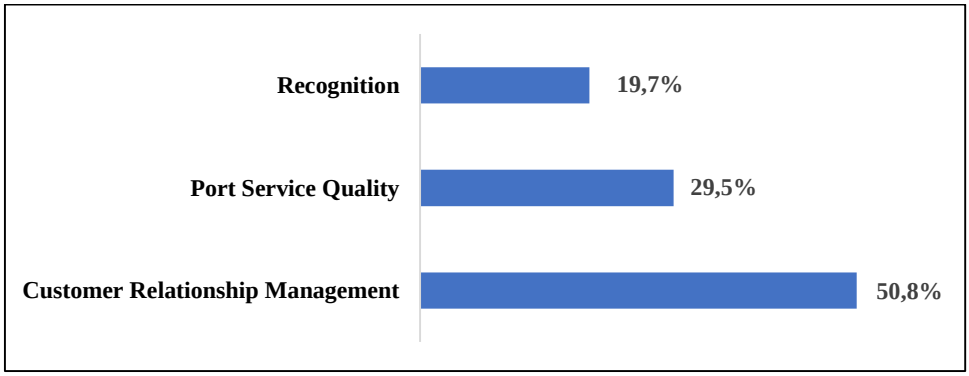
Figure 28: Effect of Port Performance Cluster on Effective Communication Criteria



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "effective communication" criteria is examined in Figure 29; it can be seen that "customer relationship management" has an effect of 50,8%, "port service quality" has an effect of 29,5% and "recognition" has an effect of 19,7%.

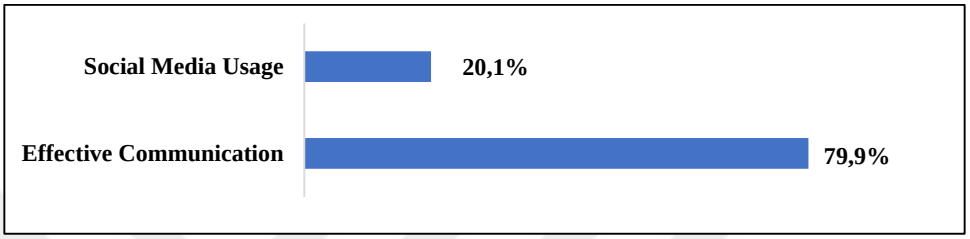
Figure 29: Effect of User's Satisfaction Cluster on Effective Communication Criteria



Source: Prepared by Author

When the effect of “effective communication and cooperation” cluster criteria on “relations with stakeholders” criteria is examined in Figure 30; it can be seen that “effective communication” has an effect of 79,9%, “social media usage” has an effect of 20,1% and “recognition” has an effect of 19,7%.

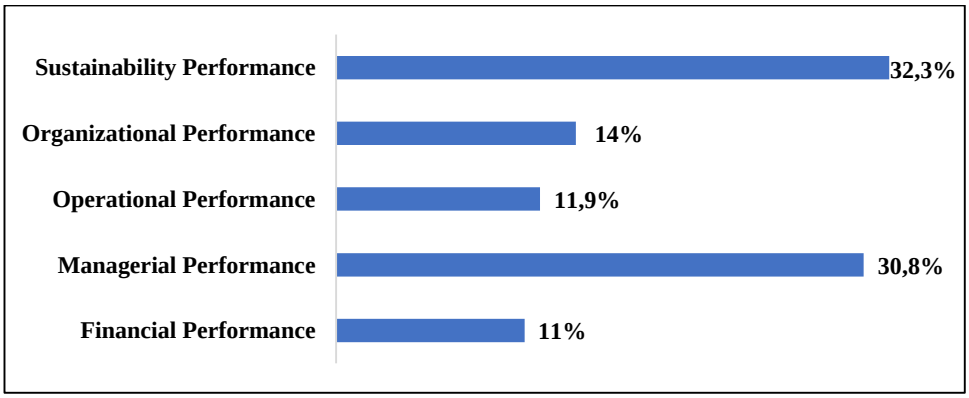
Figure 30: Effect of Effective Communication and Cooperation Cluster on Relations with Stakeholders Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “relations with stakeholders” criteria is examined in Figure 31; it can be seen that “sustainability performance” has an effect of 32,3%, “managerial performance” has an effect of 30,8%, “organizational performance” has an effect of 14%, “operational performance” has an effect of 11,9% and “financial performance” has an effect of 11%.

Figure 31: Effect of Port Performance Cluster on Relations with Stakeholders Criteria



Source: Prepared by Author

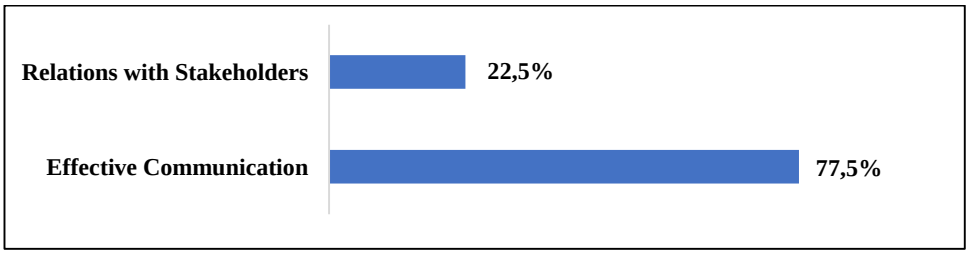
When the effect of “user’s satisfaction” cluster criteria on “relations with stakeholders” criteria is examined in Figure 32; it can be seen that “recognition” has an effect of 45,3%, “customer relationship management” has an effect of 29,5% and “port service quality” has an effect of 25,2%.

Figure 32: Effect of User’s Satisfaction Cluster on Relations with Stakeholders Criteria

Source: Prepared by Author

When the effect of “effective communication and cooperation” cluster criteria on “social media usage” criteria is examined in Figure 33; it can be seen that “effective communication” has an effect of 77,5% and “relations with stakeholders” has an effect of 22,5%.

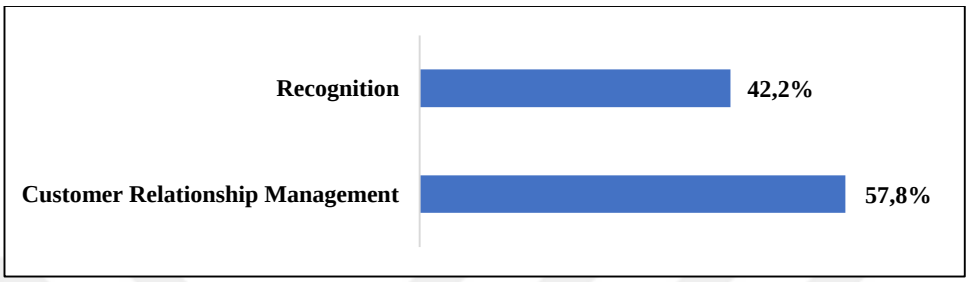
Figure 33: Effect of Effective Communication and Cooperation Cluster on Social Media Usage



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "social media usage" criteria is examined in Figure 34; it can be seen that "customer relationship management" has an effect of 57,8% and "recognition" has an effect of 42,2%.

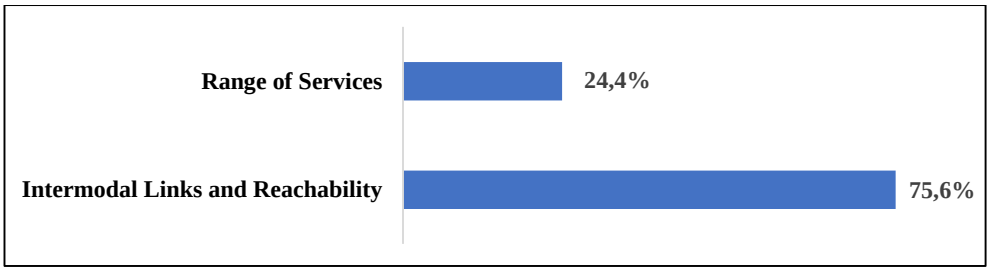
Figure 34: Effect of User's Satisfaction Cluster on Social Media Usage Criteria



Source: Prepared by Author

When the effect of "port and supply chain integration" cluster criteria on "geographic location" criteria is examined in Figure 35; it can be seen that "intermodal links and reachability" has an effect of 75,6% and "range of services" has an effect of 24,4%.

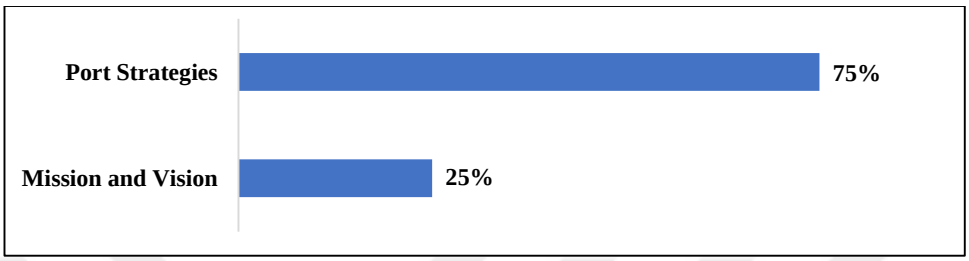
Figure 35: Effect of Port and Supply Chain Integration Cluster on Geographic Location Criteria



Source: Prepared by Author

When the effect of "strategic port management" cluster criteria on "geographic location" criteria is examined in Figure 36; it can be seen that "port strategies" has an effect of 75% and "mission and vision" has an effect of 25%.

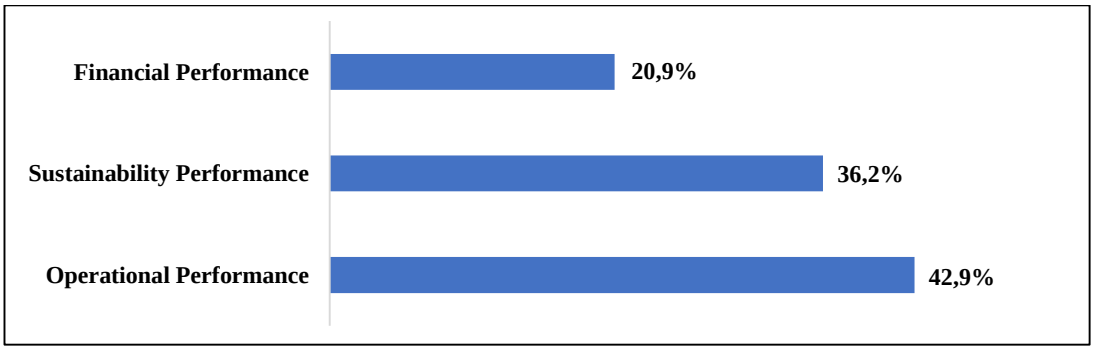
Figure 36: Effect of Strategic Port Management Cluster on Geographic Location Criteria



Source: Prepared by Author

When the effect of "port performance" cluster criteria on "geographic location" criteria is examined in Figure 37; it can be seen that "operational performance" has an effect of 42,9%, "sustainability performance" has an effect of 36,2% and "financial performance" has an effect of 20,9%.

Figure 37: Effect of Port Performance Cluster on Geographic Location Criteria

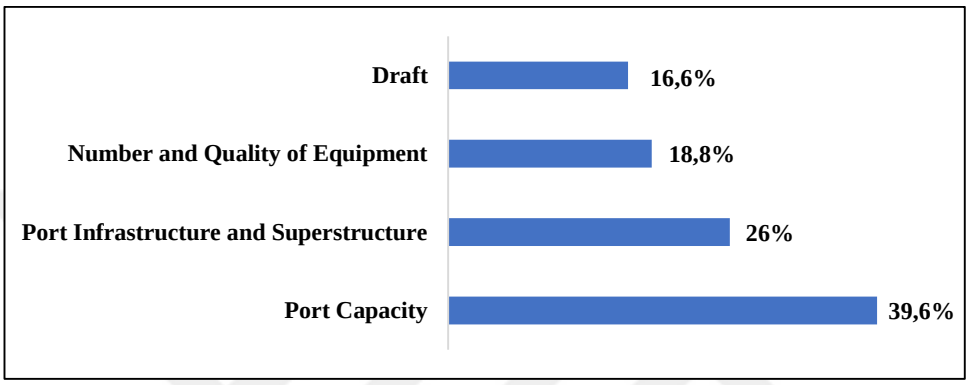


Source: Prepared by Author

When the effect of "physical and technical characteristics" cluster criteria on "geographic location" criteria is examined in Figure 38; it can be seen that "port

capacity" has an effect of 39,6%, "port infrastructure and superstructure" has an effect of 26%, "number and quality of equipment" has an effect of 18,8% and "draft" has an effect of 16,6%.

Figure 38: Effect of Physical and Technical Characteristics Cluster on Geographic Location Criteria



Source: Prepared by Author

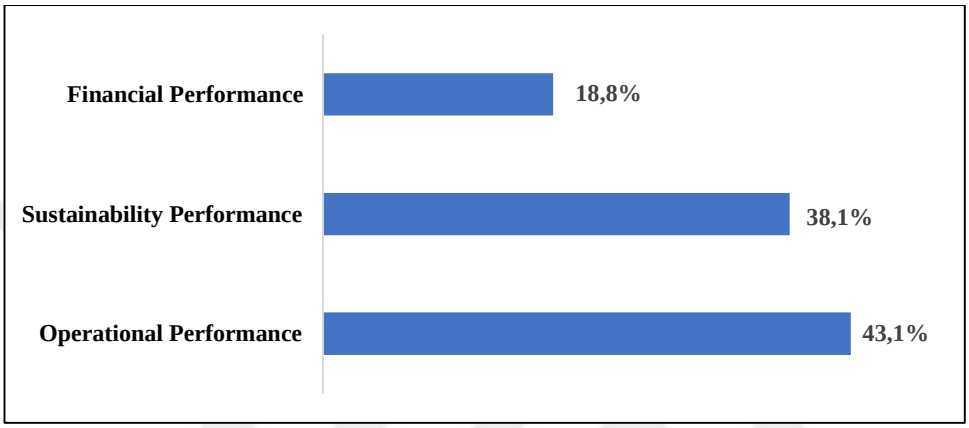
When the effect of "port and supply chain integration" cluster criteria on "intermodal links and reachability" criteria is examined in Figure 39; it can be seen that "geographic location" has an effect of 56% and "range of services" has an effect of 44%.

Figure 39: Effect of Port and Supply Chain Integration Cluster on Intermodal Links and Reachability Criteria

Source: Prepared by Author

When the effect of "port performance" cluster criteria on "intermodal links and reachability" criteria is examined in Figure 40; it can be seen that "operational performance" has an effect of 43,1%, "sustainability performance" has an effect of 38,1% and "financial performance" has an effect of 18,8%.

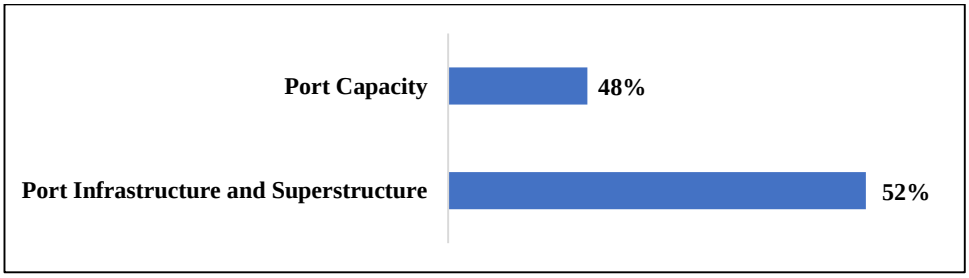
Figure 40: Effect of Port Performance Cluster on Intermodal Links and Reachability Criteria



Source: Prepared by Author

When the effect of "physical and technical characteristics" cluster criteria on "intermodal links and reachability" criteria is examined in Figure 41; it can be seen that "port infrastructure and superstructure" has an effect of 52% and "port capacity" has an effect of 48%.

Figure 41: Physical and Technical Characteristics Cluster on Intermodal Links and Reachability Criteria



Source: Prepared by Author

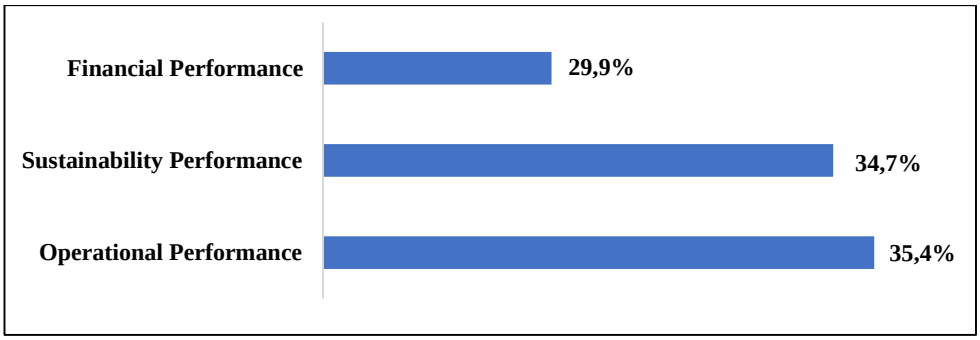
When the effect of “user’s satisfaction” cluster criteria on “intermodal links and reachability” criteria is examined in Figure 42; it can be seen that “port service quality” has an effect of 43,4%, “customer relationship management” has an effect of 29,1% and “recognition” has an effect of 27,5%.

Figure 42: Effect of User’s Satisfaction Cluster on Intermodal Links and Reachability Criteria

Source: Prepared by Author

When the effect of “port performance” cluster criteria on “range of services” criteria is examined in Figure 43; it can be seen that “operational performance” has an effect of 35,4%, “sustainability performance” has an effect of 34,7% and “financial performance” has an effect of 29,9%.

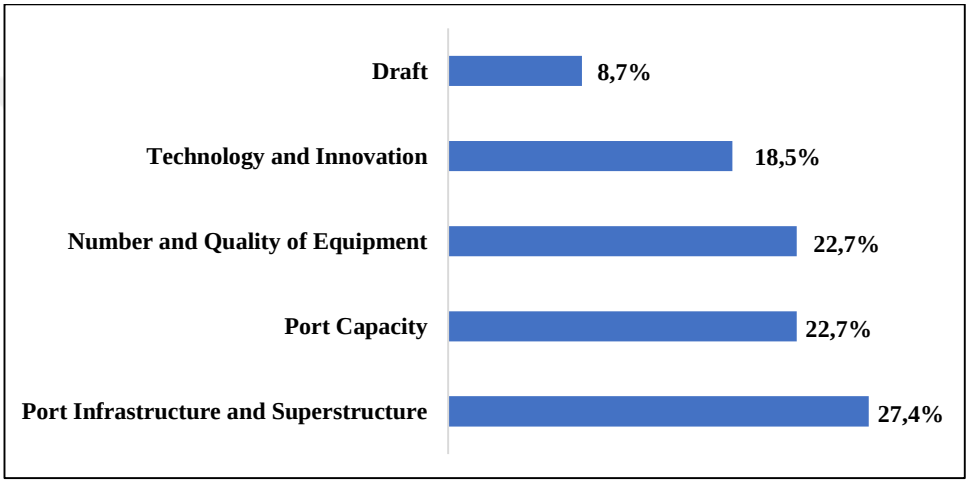
Figure 43: Effect of Port Performance Cluster on Range of Services Criteria



Source: Prepared by Author

When the effect of “physical and technical characteristics” cluster criteria on “range of services” criteria is examined in Figure 44; it can be seen that “port infrastructure and superstructure” has an effect of 27,4%, “port capacity” has an effect of 22,7%, “number and quality of equipment” has an effect of 22,7%, “technology and innovation” has an effect of %18,5% and “draft” has an effect of 8,7%.

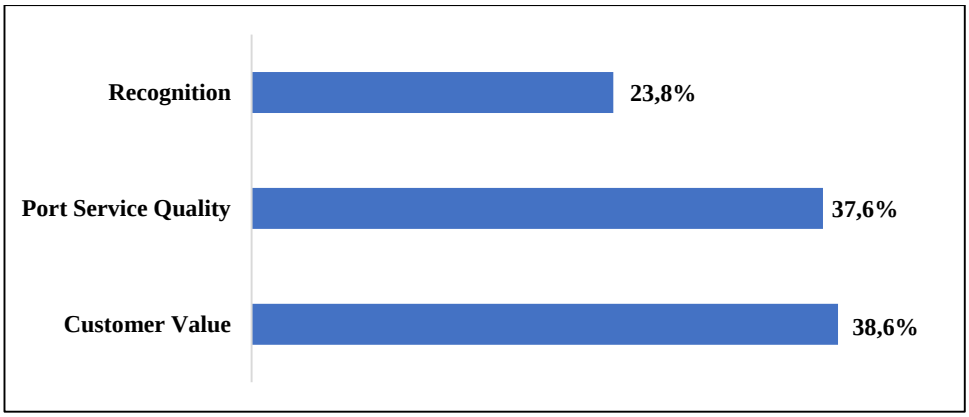
Figure 44: Effect of Physical and Technical Characteristics Cluster on Range of Services Criteria



Source: Prepared by Author

When the effect of “user’s satisfaction” cluster criteria on “range of services” criteria is examined in Figure 45; it can be seen that “customer value” has an effect of 38,6%, “port service quality” has an effect of 37,6%, and “recognition” has an effect of 23,8%.

Figure 45: Effect of User's Satisfaction Cluster on Range of Services Criteria



Source: Prepared by Author

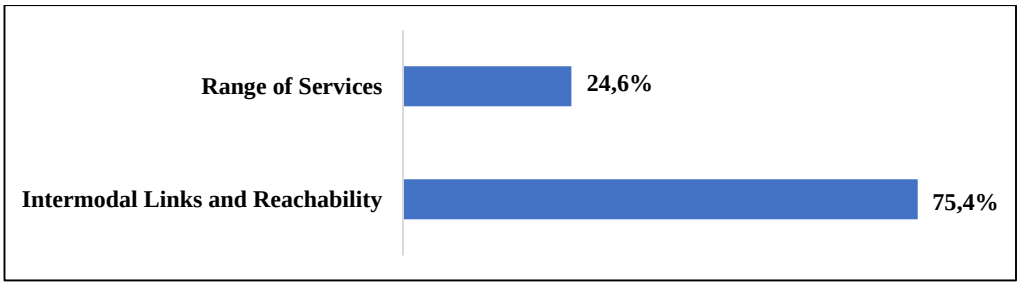
When the effect of "effective communication and cooperation" cluster criteria on "port strategies" criteria is examined in Figure 46; it can be seen that "relations with stakeholders" has an effect of 57,8% and "effective communication" has an effect of 42,2%.

Figure 46: Effect of Effective Communication and Cooperation Cluster on Port Strategies Criteria

Source: Prepared by Author

When the effect of "port and supply chain integration" cluster criteria on "port strategies" criteria is examined in Figure 47; it can be seen that "intermodal links and reachability" has an effect of 75,4% and "range of services" has an effect of 24,6%.

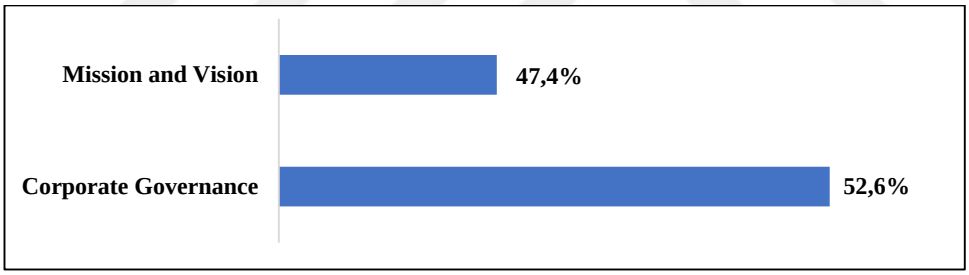
Figure 47: Effect of Port and Supply Chain Integration Cluster on Port Strategies Criteria



Source: Prepared by Author

When the effect of "strategic port management" cluster criteria on "port strategies" criteria is examined in Figure 48; it can be seen that "corporate governance" has an effect of 52,6% and "mission and vision" has an effect of 47,4%.

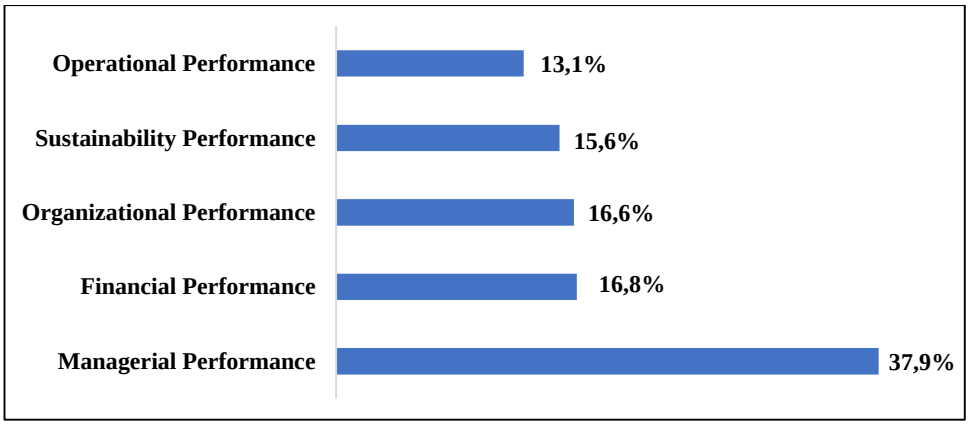
Figure 48: Effect of Strategic Port Management Cluster on Port Strategies Criteria



Source: Prepared by Author

When the effect of "port performance" cluster criteria on "port strategies" criteria is examined in Figure 49; it can be seen that "managerial performance" has an effect of 37,9%, "financial performance" has an effect of 16,8%, "organizational performance" has an effect of 16,6%, "sustainability performance" has an effect of 15,6%, and "operational performance" has an effect of 13,1%.

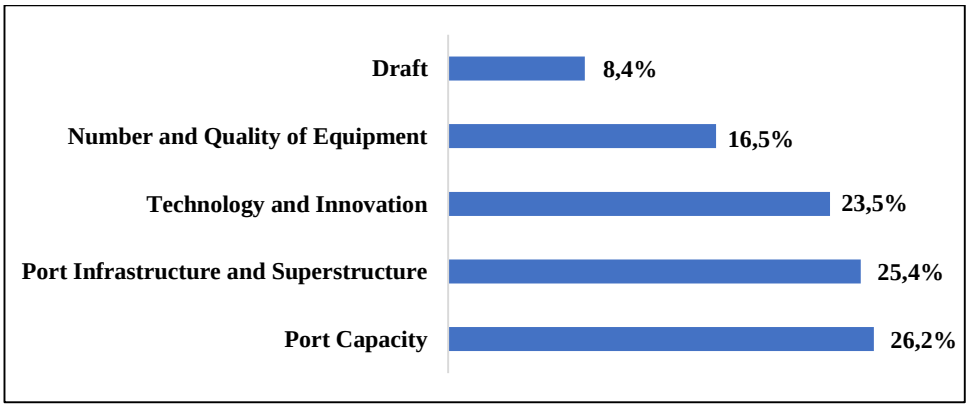
Figure 49: Effect of Port Performance Cluster on Port Strategies Criteria



Source: Prepared by Author

When the effect of "physical and technical characteristics" cluster criteria on "port strategies" criteria is examined in Figure 50; it can be seen that "port capacity" has an effect of 26,2%, "port infrastructure and superstructure" has an effect of %25,4%, "technology and innovation" has an effect of 23,5%, "number and quality of equipment" has an effect of 16,5% and "draft" has an effect of 8,4%.

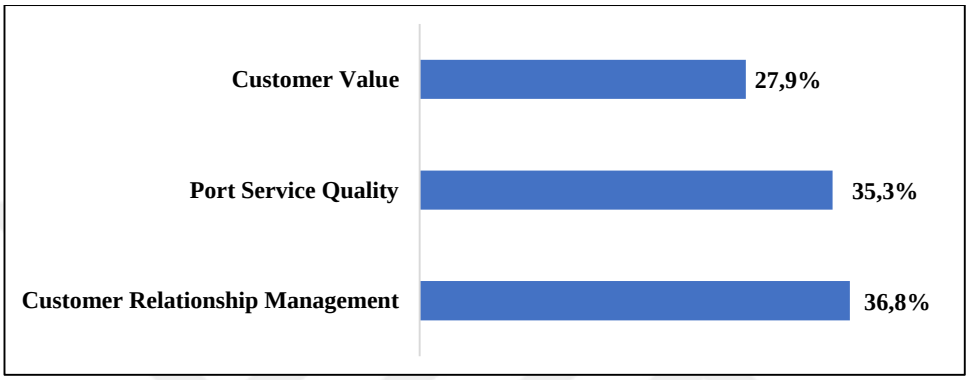
Figure 50: Effect of Physical and Technical Characteristics Cluster on Port Strategies Criteria



Source: Prepared by Author

When the effect of “user’s satisfaction” cluster criteria on “port strategies” criteria is examined in Figure 51; it can be seen that “customer relationship management” has an effect of 36,8%, “port service quality” has an effect of 35,3% and “customer value” has an effect of 27,9%.

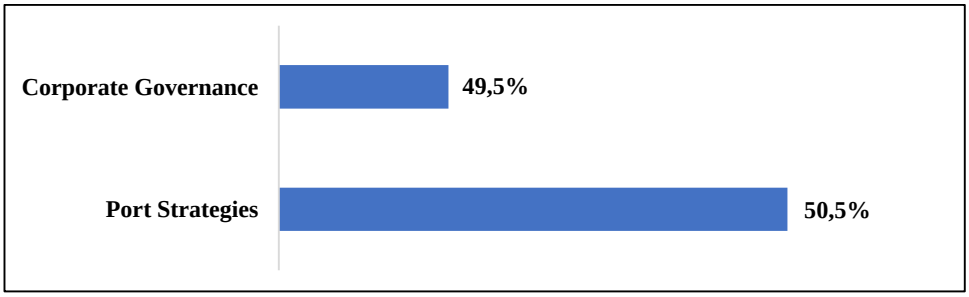
Figure 51: Effect of User’s Satisfaction Cluster on Port Strategies Criteria



Source: Prepared by Author

When the effect of “strategic port management” cluster criteria on “mission and vision” criteria is examined in Figure 52, it can be seen that “port strategies” has an effect of 50,5% and “corporate governance” has an effect of 49,5%.

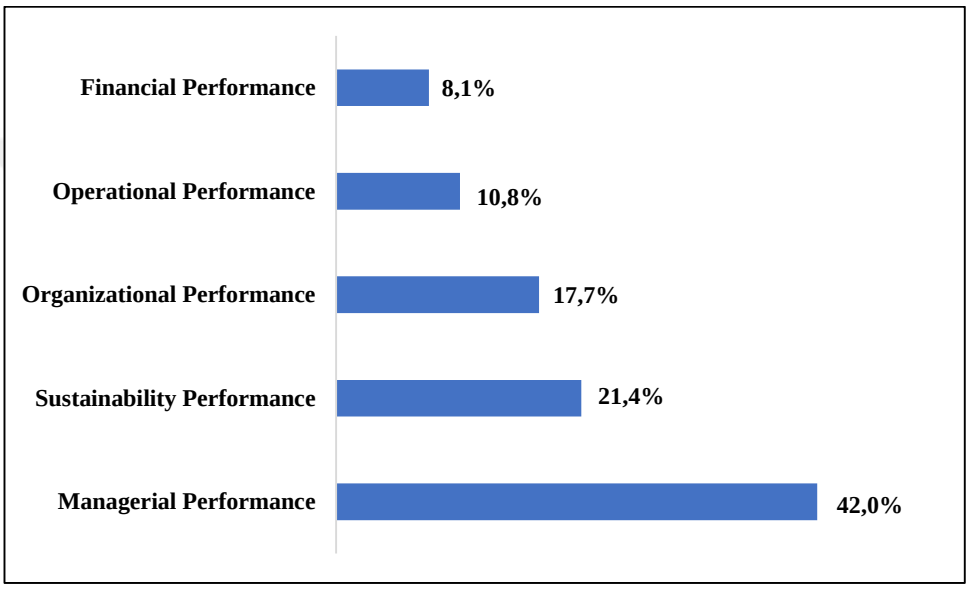
Figure 52: Effect of Strategic Port Management Cluster on Mission and Vision Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “mission and vision” criteria is examined in Figure 53; it can be seen that “managerial performance” has an effect of 42,0%, “sustainability performance” has an effect of 21,4%, “organizational performance” has an effect of 17,7%, “operational performance” has an effect of 10,8% and “financial performance” has an effect of 8,1%.

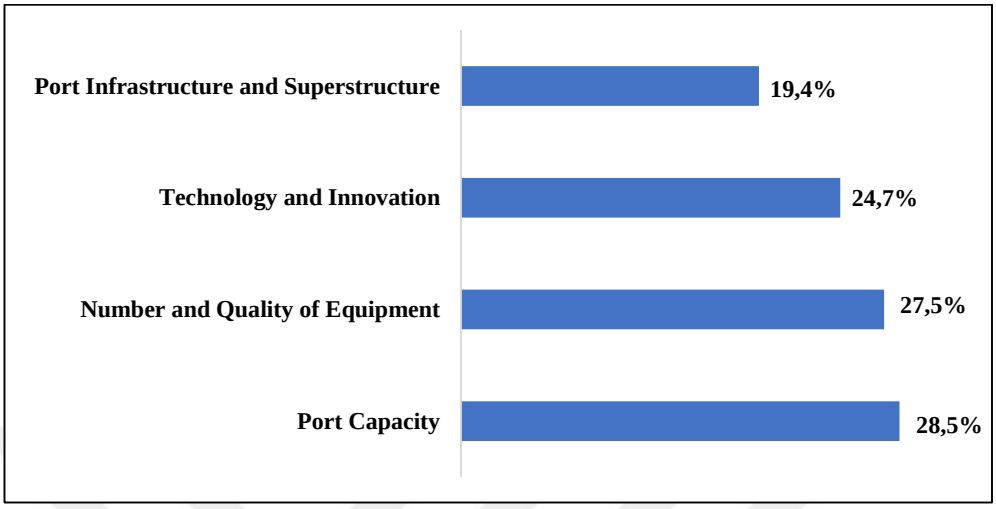
Figure 53: Effect of Port Performance Cluster on Mission and Vision Criteria



Source: Prepared by Author

When the effect of “physical and technical characteristics” cluster criteria on “mission and vision” criteria is examined in Figure 54; it can be seen that “port capacity” has an effect of 28,5%, “number and quality of equipment” has an effect of %27,5, “technology and innovation” has an effect of 24,7%, and “port infrastructure and superstructure” has an effect of 19,4%.

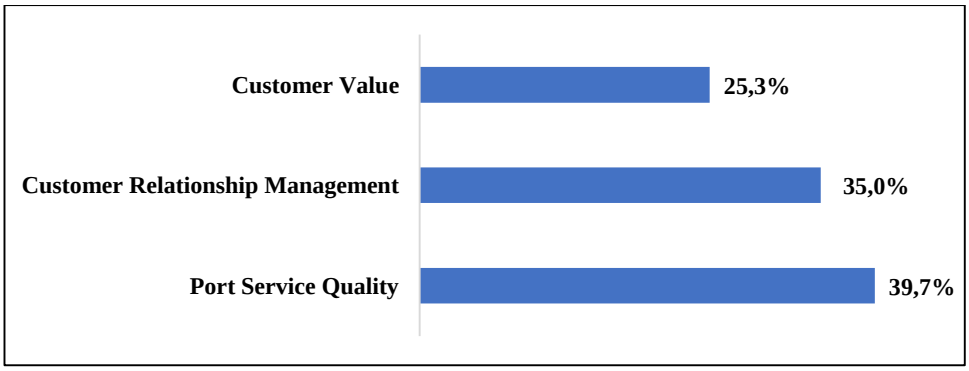
Figure 54: Effect of Physical and Technical Characteristics Cluster on Mission and Vision Criteria



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "mission and vision" criteria is examined in Figure 55; it can be seen that "port service quality" has an effect of 39,7%, "customer relationship management" has an effect of 35,0% and "customer value" has an effect of 25, 3%.

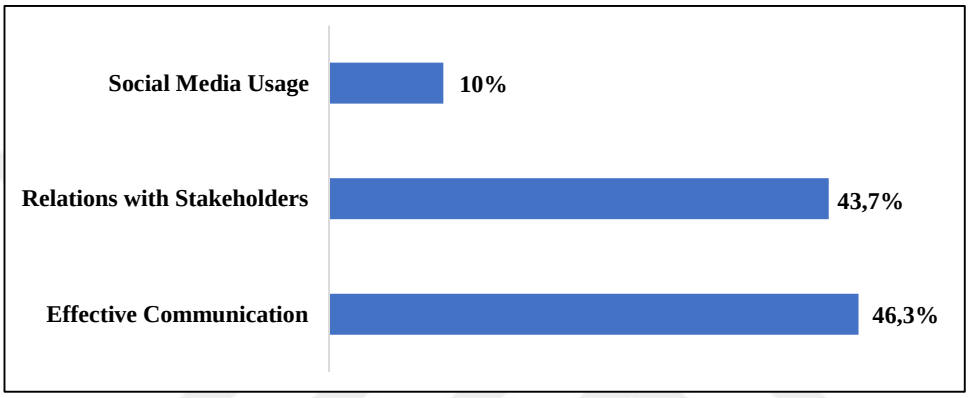
Figure 55: Effect of User's Satisfaction Cluster on Mission and Vision Criteria



Source: Prepared by Author

When the effect of “effective communication and cooperation” cluster criteria on “corporate governance” criteria is examined in Figure 56; it can be seen that “effective communication” has an effect of 77,5%, “relations with stakeholders” has an effect of 22,5% and “social media usage” has an effect of 10%.

Figure 56: Effect of Effective Communication and Cooperation on Corporate Governance Criteria



Source: Prepared by Author

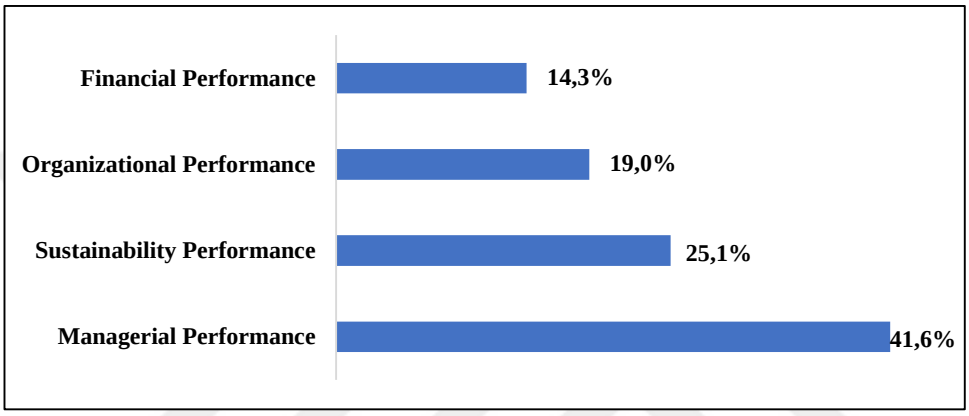
When the effect of “strategic port management” cluster criteria on “corporate governance” criteria is examined in Figure 57; it can be seen that “mission and vision” has an effect of 59,1% and “port strategies” has an effect of 44,1%.

Figure 57: Effect of Strategic Port Management Cluster on Corporate Governance Criteria

Source: Prepared by Author

When the effect of “port performance” cluster criteria on “corporate governance” criteria is examined in Figure 58; it can be seen that managerial performance” has an effect of 41,6%, “sustainability performance” has an effect of 25,1%, “organizational performance” has an effect of 19% and “financial performance” has an effect of 14,3%.

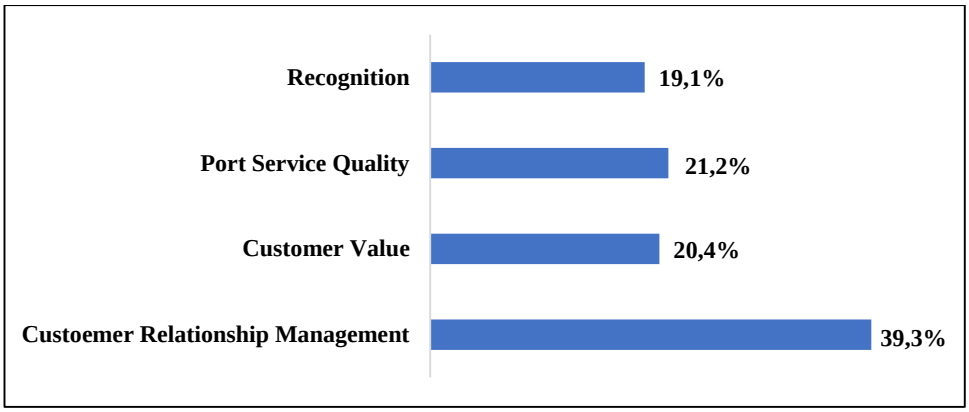
Figure 58: Effect of Port Performance Cluster on Corporate Governance Criteria



Source: Prepared by Author

When the effect of “user’s satisfaction” cluster criteria on “corporate governance” criteria is examined in Figure 59; it can be seen that “customer relationship management” has an effect of 39,3%, “customer value” has an effect of 20,4%, “port service quality” has an effect of 21,2%, and “recognition” has an effect of 19,1%.

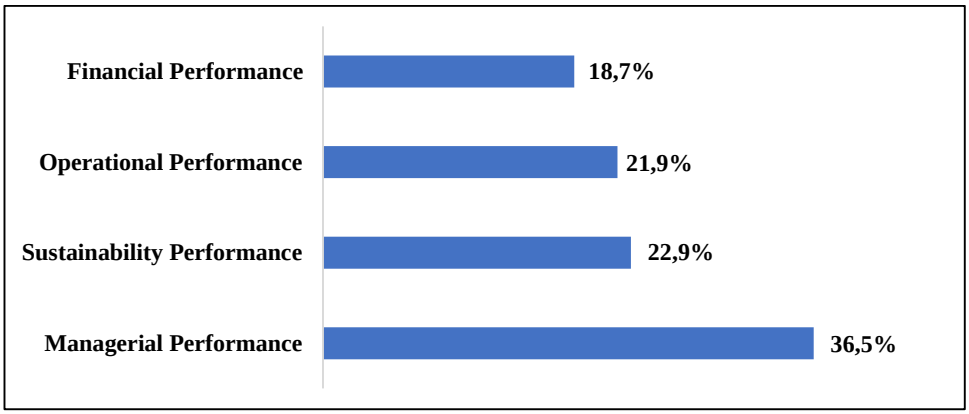
Figure 59: Effect of User's Satisfaction Cluster on Corporate Governance Criteria



Source: Prepared by Author

When the effect of "port performance" cluster criteria on "organizational performance" criteria is examined in Figure 60; it can be seen that managerial performance" has an effect of 36,5%, "sustainability performance" has an effect of 22,9%, "operational performance" has an effect of 21,9% and "financial performance" has an effect of 18,7%.

Figure 60: Effect of Port Performance Cluster on Organizational Performance Criteria

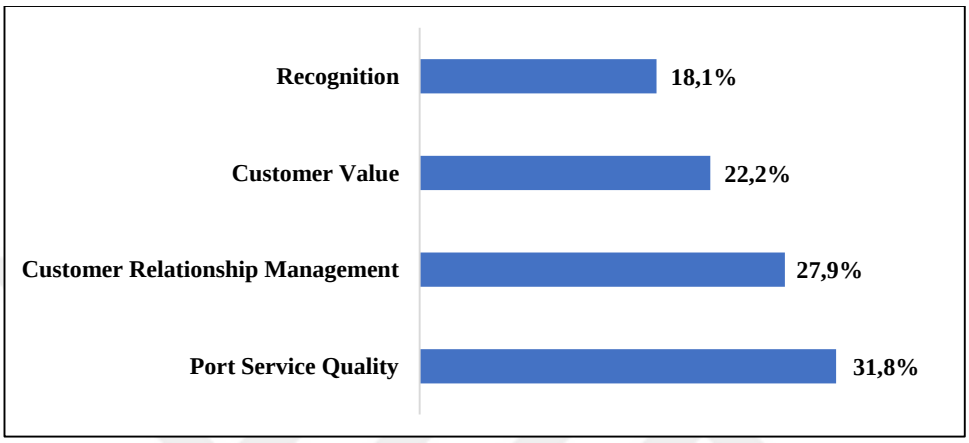


Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "organizational performance" criteria is examined in Figure 61; it can be seen that "port service

quality" has an effect of 31,8%, "customer relationship management" has an effect of 27,9%, "customer value" has an effect of 22,2% and "recognition" has an effect of 18,1%.

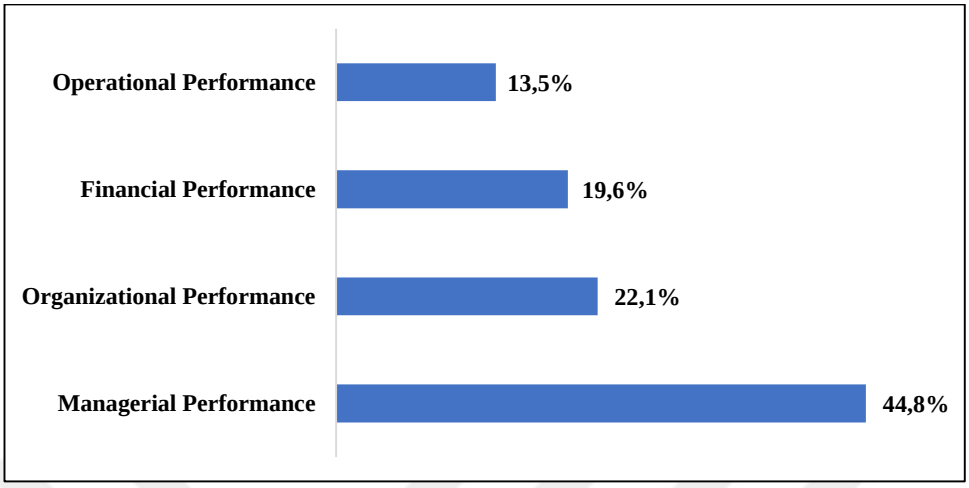
Figure 61: Effect of User's Satisfaction Cluster on Organizational Performance Criteria



Source: Prepared by Author

When the effect of "port performance" cluster criteria on "sustainability performance" criteria is examined in Figure 62; it can be seen that managerial performance" has an effect of 44,8%, "organizational performance" has an effect of 22,1%, "financial performance" has an effect of 19,6% and "operational performance" has an effect of 13,5%.

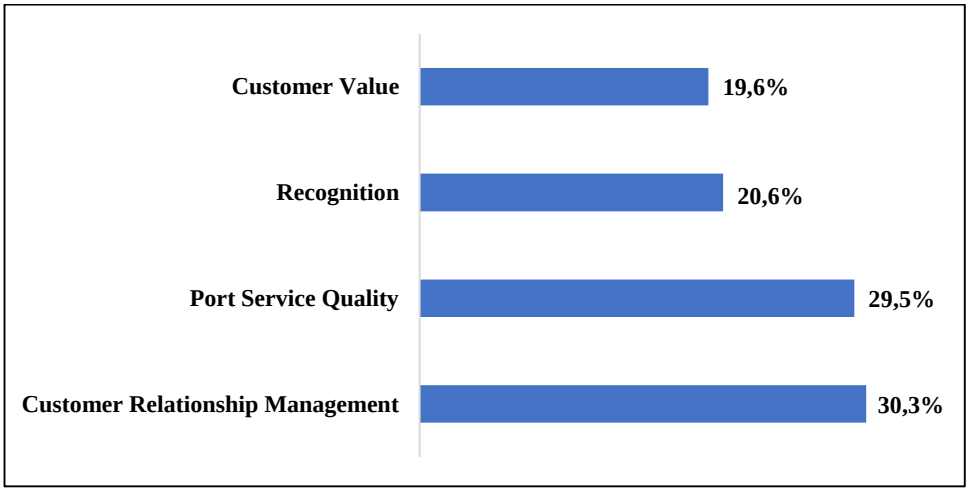
Figure 62: Effect of Port Performance Cluster on Sustainability Performance Criteria



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "sustainability performance" criteria is examined in Figure 63; it can be seen that "customer relationship management" has an effect of 30,3%, "port service quality" has an effect of 29,5%, "recognition" has an effect of 20,6% and "customer value" has an effect of 19,6%.

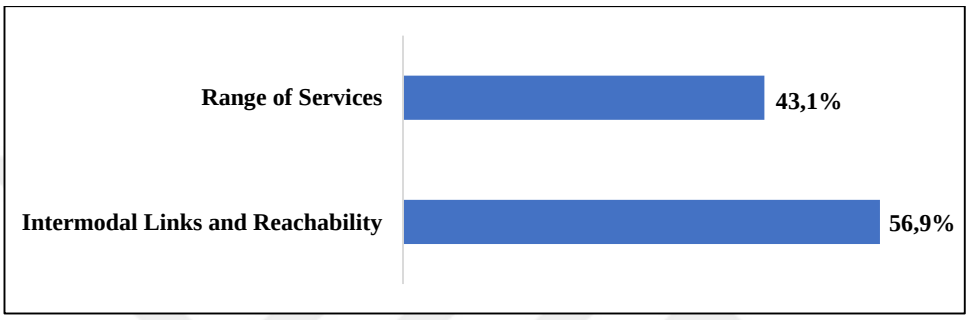
Figure 63: Effect of User's Satisfaction Cluster on Sustainability Performance Criteria



Source: Prepared by Author

When the effect of “port and supply chain integration” cluster criteria on “financial performance” criteria is examined in Figure 64; it can be seen that “intermodal links and reachability” has an effect of 56,9% and “range of services” has an effect of 43,1%.

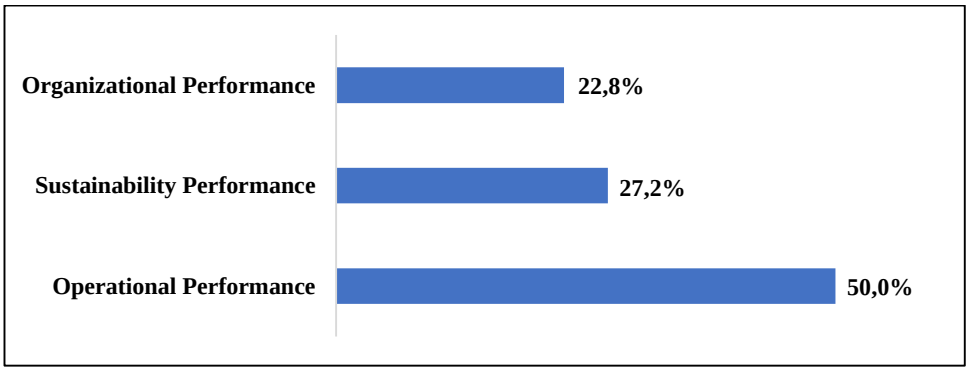
Figure 64: Effect of Port and Supply Chain Integration Cluster on Financial Performance Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “financial performance” criteria is examined in Figure 65; it can be seen that “operational performance” has an effect of 50,0%, “sustainability performance” has an effect of 27,2% and “organizational performance” has an effect of 22,8%.

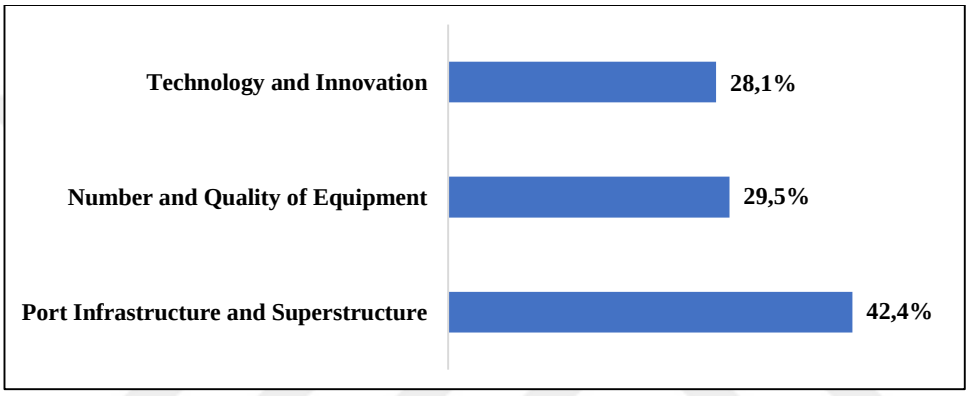
Figure 65: Effect of Port Performance Cluster on Financial Performance Criteria



Source: Prepared by Author

When the effect of “physical and technical characteristics” cluster criteria on “financial performance” criteria is examined in Figure 66; it can be seen that “port infrastructure and superstructure” has an effect of 42,4%, “number and quality of equipment” has an effect of %29,5 and “technology and innovation” has an effect of 28,1%.

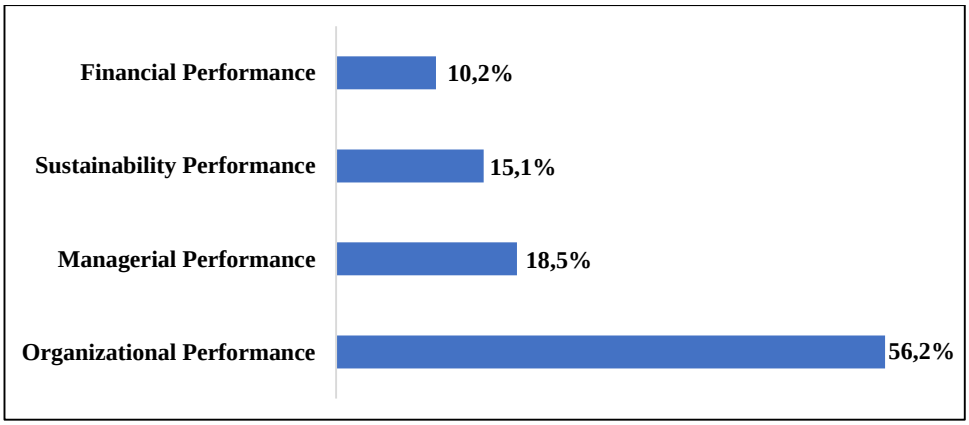
Figure 66: Effect of Physical and Technical Characteristics Cluster on Financial Performance Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “operational performance” criteria is examined in Figure 67; it can be seen that “organizational performance” has an effect of 56,2%, “managerial performance” has an effect of 18,5%, “sustainability performance” has an effect of 15,1% and “financial performance” has an effect of 10,2%.

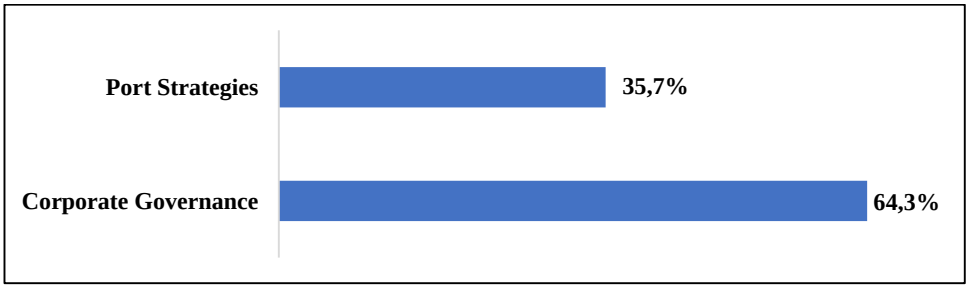
Figure 67: Effect of Port Performance Cluster on Operational Performance Criteria



Source: Prepared by Author

When the effect of "strategic port management" cluster criteria on "managerial performance" criteria is examined in Figure 68; it can be seen that "corporate governance" has an effect of 64,3% and "port strategies" has an effect of 35,7%.

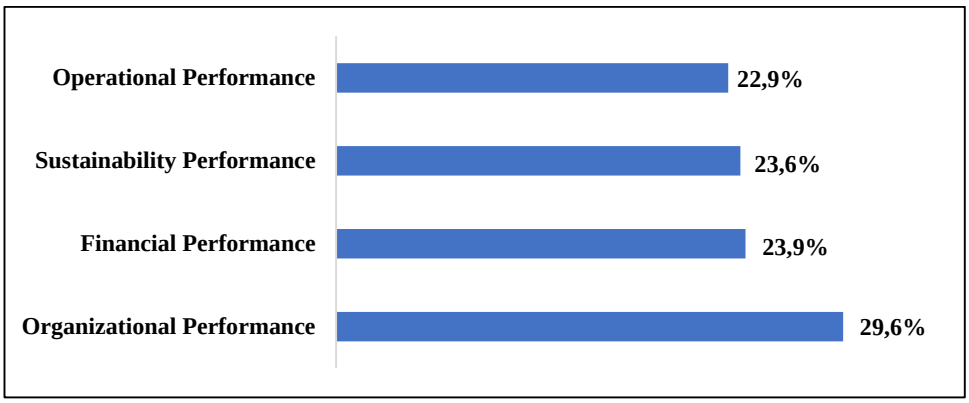
Figure 68: Effect of Strategic Port Management Cluster on Managerial Performance Criteria



Source: Prepared by Author

When the effect of "port performance" cluster criteria on "managerial performance" criteria is examined in Figure 69; it can be seen that "organizational performance" has an effect of 29,6%, "financial performance" has an effect of 23,9%, "sustainability performance" has an effect of 23,6% and "operational performance" has an effect of 22,9%.

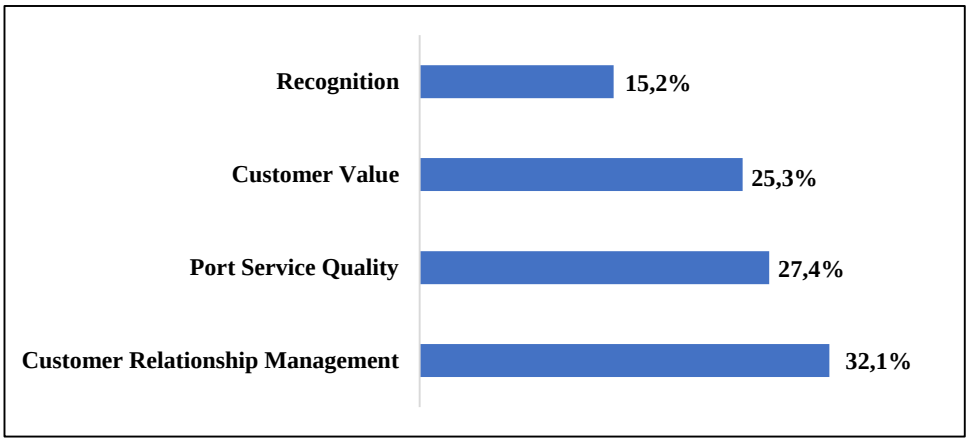
Figure 69: Effect of Port Performance Cluster on Managerial Performance Criteria



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "sustainability performance" criteria is examined in Figure 70; it can be seen that "customer relationship management" has an effect of 32,1%, "port service quality" has an effect of 27,4%, "customer value" has an effect of 25,3% and "recognition" has an effect of 15,2%.

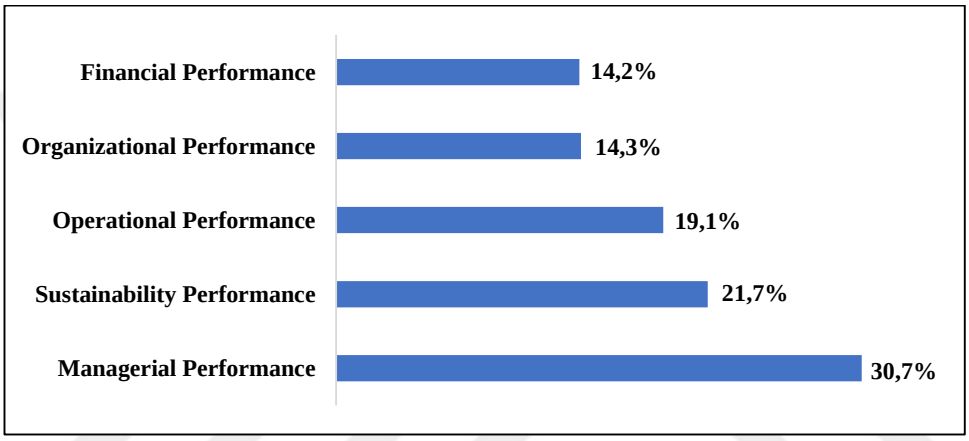
Figure 70: Effect of User's Satisfaction Cluster on Managerial Performance Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “technology and innovation” criteria is examined in Figure 71; it can be seen that “managerial performance” has an effect of 30,7%, “sustainability performance” has an effect of 21,7%, “operational performance” has an effect of 19,1%, “organizational performance” has an effect of 14,3% and “financial performance” has an effect of 14,2%.

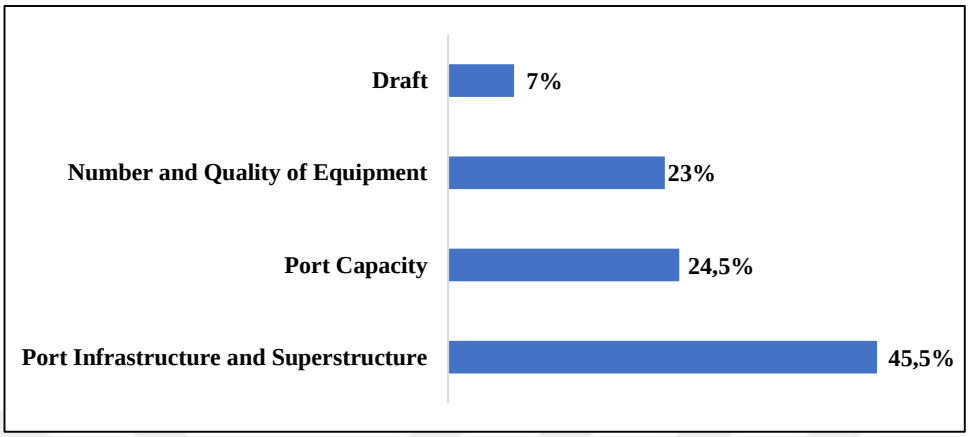
Figure 71: Effect of Port Performance Cluster on Technology and Innovation Criteria



Source: Prepared by Author

When the effect of “physical and technical characteristics” cluster criteria on “technology and innovation” criteria is examined in Figure 72; it can be seen that “port infrastructure and superstructure” has an effect of 45,5%, “port capacity” has an effect of % 24,5%, “number and quality of equipment” has an effect of %23 and “draft” has an effect of 7%.

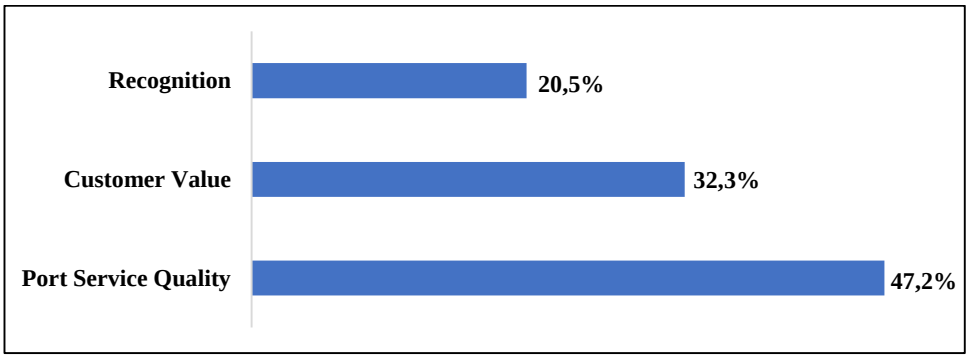
Figure 72: Effect of Physical and Technical Characteristics Cluster on Technology and Innovation Criteria



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "technology and innovation" criteria is examined in Figure 73; it can be seen "port service quality" has an effect of 47,2%, "customer value" has an effect of 32,3% and "recognition" has an effect of 20,5%.

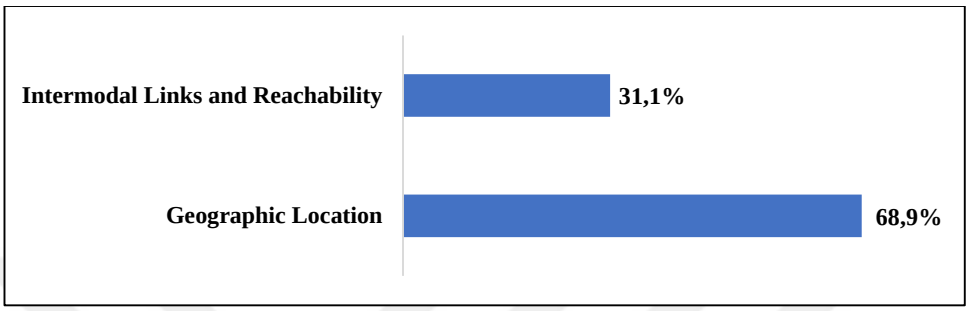
Figure 73: Effect of User's Satisfaction Cluster on Technology and Innovation Criteria



Source: Prepared by Author

When the effect of “port and supply chain integration” cluster criteria on “draft” criteria is examined in Figure 74; it can be seen that “geographic location” has an effect of 68,9% and “intermodal links and reachability” has an effect of 31,1%.

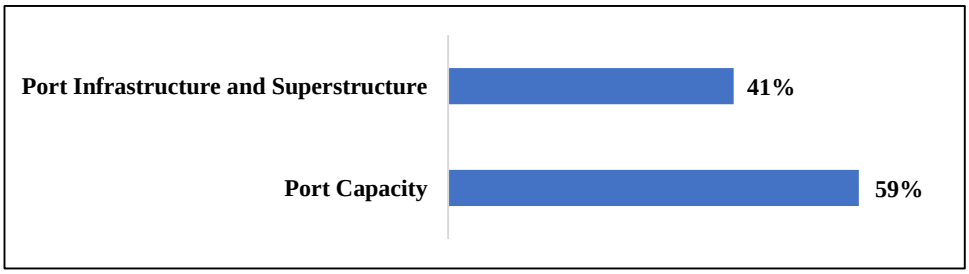
Figure 74: Effect of Port and Supply Chain Integration Cluster on Draft Criteria



Source: Prepared by Author

When the effect of “physical and technical characteristics” cluster criteria on “draft” criteria is examined in Figure 75; it can be seen that “port capacity” has an effect of 59% and “port capacity” has an effect of % 41.

Figure 75: Effect of Physical and Technical Characteristics Cluster on Draft Criteria

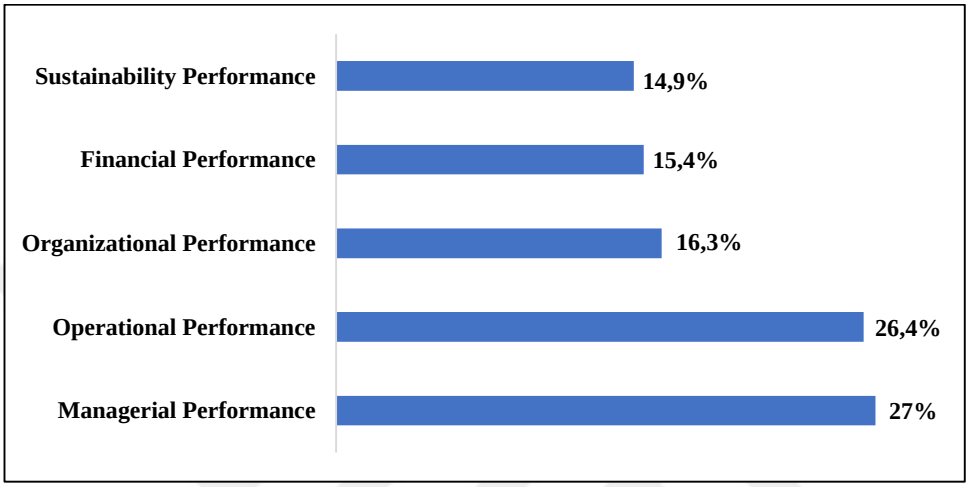


Source: Prepared by Author

When the effect of “port performance” cluster criteria on “port infrastructure and superstructure” criteria is examined in Figure 76; it can be seen that “managerial performance” has an effect of 27%, “operational performance” has an effect of 26,4%,

“organizational performance” has an effect of 16,3%, “financial performance” has an effect of 15,4% and “sustainability performance” has an effect of 14,9%.

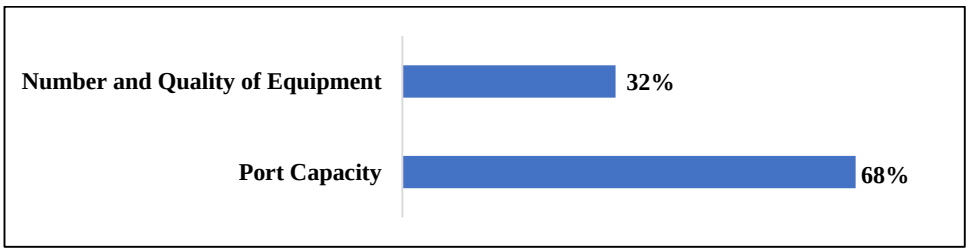
Figure 76: Effect of Port Performance Cluster on Port Infrastructure and Superstructure Criteria



Source: Prepared by Author

When the effect of “physical and technical characteristics” cluster criteria on “port infrastructure and superstructure” criteria is examined in Figure 77; it can be seen that “port capacity” has an effect of 68% and “number and quality of equipment” has an effect of % 32.

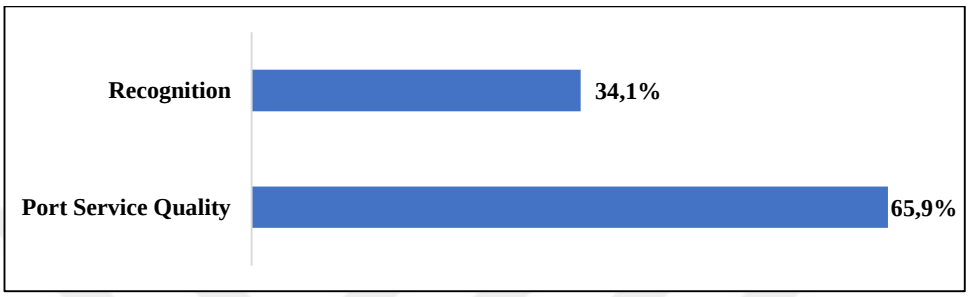
Figure 77: Effect of Physical and Technical Characteristics Cluster on Port Infrastructure and Superstructure Criteria



Source: Prepared by Author

When the effect of “user’s satisfaction” cluster criteria on “port infrastructure and superstructure” criteria is examined in Figure 78; it can be seen “port service quality” has an effect of 65,9% and “recognition” has an effect of 34,1%.

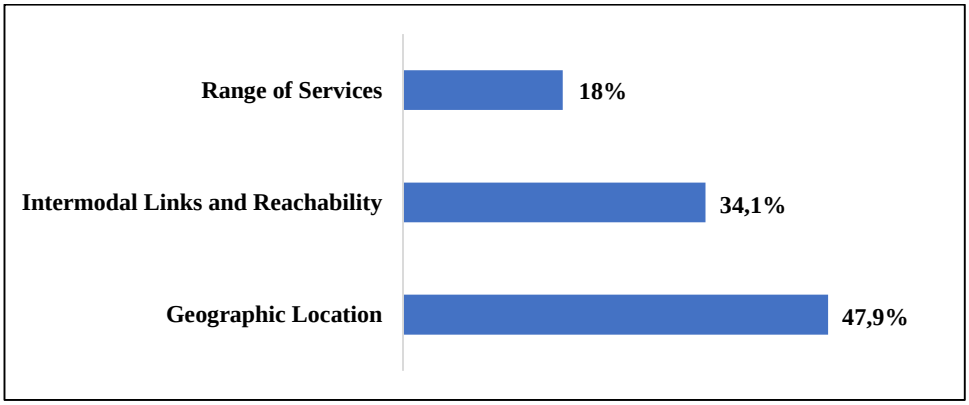
Figure 78: Effect of User’s Satisfaction Cluster on Port Infrastructure and Superstructure Criteria



Source: Prepared by Author

When the effect of “port and supply chain integration” cluster criteria on “port capacity” criteria is examined in Figure 79; it can be seen that “geographic location” has an effect of 47,9%, “intermodal links and reachability” has an effect of 34,1% and “range of services” has an effect of 18%

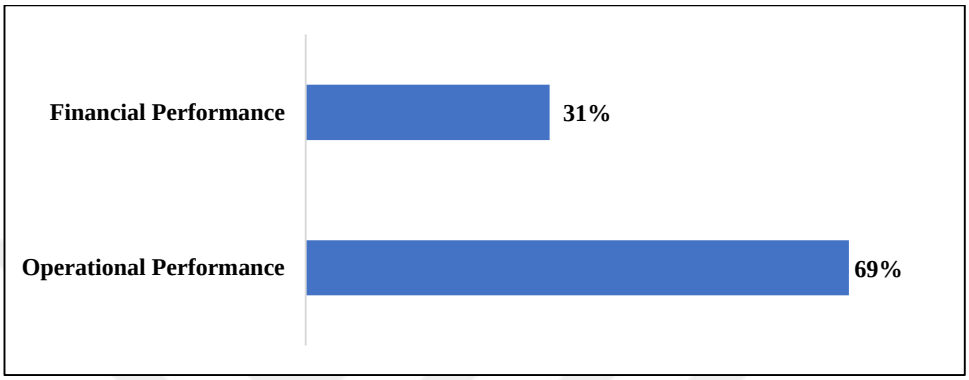
Figure 79: Effect of Port and Supply Chain Integration Cluster on Port Capacity Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “port capacity” criteria is examined in Figure 80; it can be seen that “operational performance” has an effect of 69% and “financial performance” has an effect of 31%.

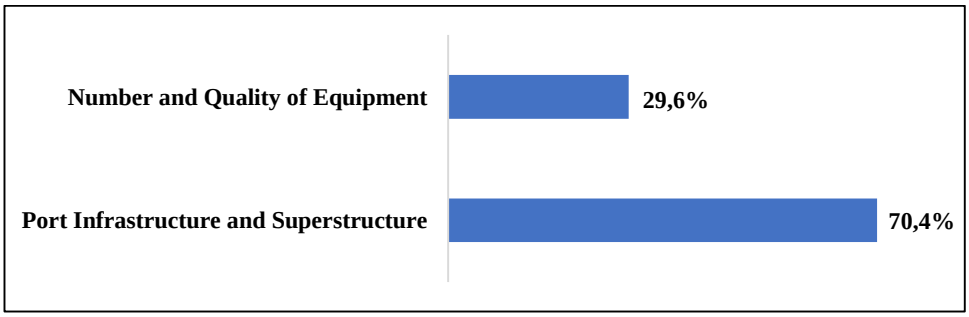
Figure 80: Effect of Port Performance Cluster on Port Capacity Criteria



Source: Prepared by Author

When the effect of “physical and technical characteristics” cluster criteria on “port capacity” criteria is examined in Figure 81; it can be seen that “port infrastructure and superstructure” has an effect of 70,4% and “number and quality of equipment” has an effect of 29,6%.

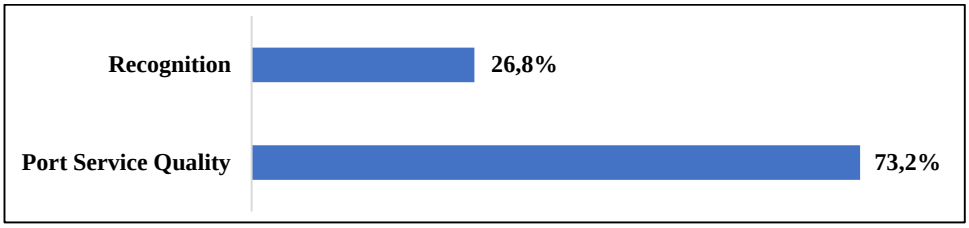
Figure 81: Effect of Physical and Technical Characteristics Cluster on Port Capacity Criteria



Source: Prepared by Author

When the effect of “user’s satisfaction” cluster criteria on “port capacity” criteria is examined in Figure 82; it can be seen “port service quality” has an effect of 73,2% and “recognition” has an effect of 26,8%.

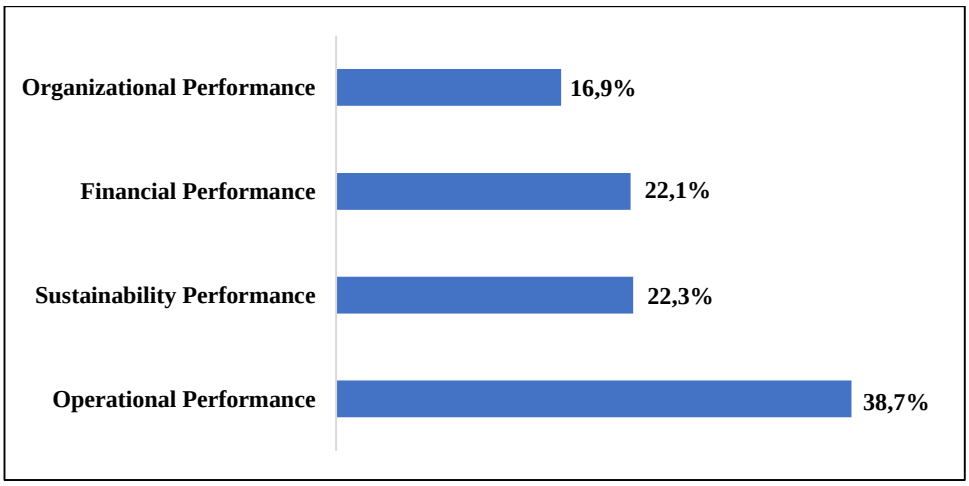
Figure 82: Effect of User’s Satisfaction Cluster on Port Capacity Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “number and quality of equipment” criteria is examined in Figure 83; it can be seen that “operational performance” has an effect of 38,7%, “sustainability performance” has an effect of 22,3%, “financial performance” has an effect of 22,1% and “organizational performance” has an effect of 16,9%.

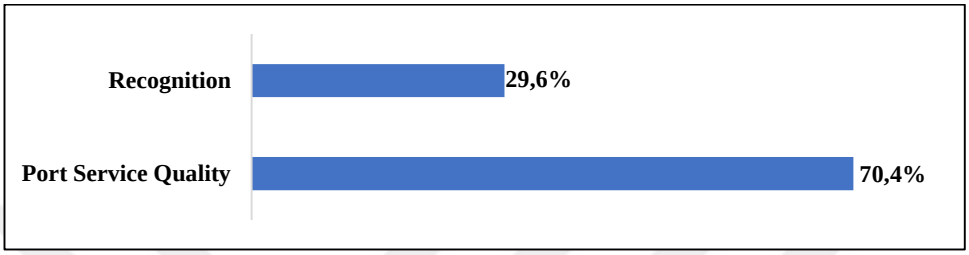
Figure 83: Effect of Port Performance Cluster on Number and Quality of Equipment Criteria



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "number and quality of equipment" criteria is examined in Figure 84; it can be seen "port service quality" has an effect of 70,4%, and "recognition" has an effect of 29,6%.

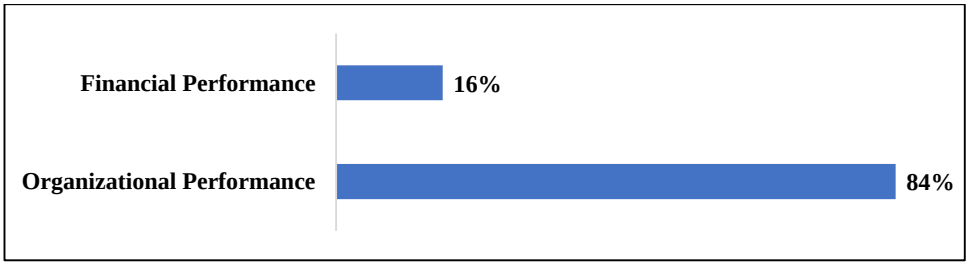
Figure 84: Effect of User's Satisfaction Cluster on Number and Quality of Equipment Criteria



Source: Prepared by Author

When the effect of "port performance" cluster criteria on "port service quality" criteria is examined in Figure 85; it can be seen that "organizational performance" has an effect of 84% and "financial performance" has an effect of 16%.

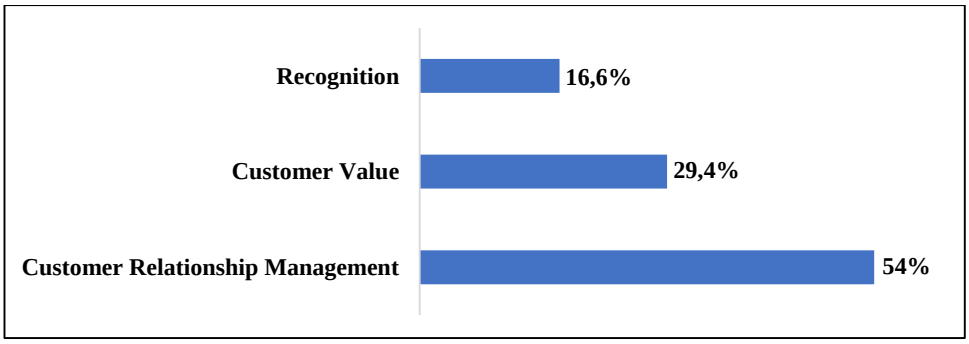
Figure 85: Effect of Port Performance Cluster on Port Service Quality Criteria



Source: Prepared by Author

When the effect of "user's satisfaction" cluster criteria on "port service quality" criteria is examined in Figure 86; it can be seen "customer relationship management" has an effect of 54%, "customer value" has an effect of 29,4% and "recognition" has an effect of 16,6%.

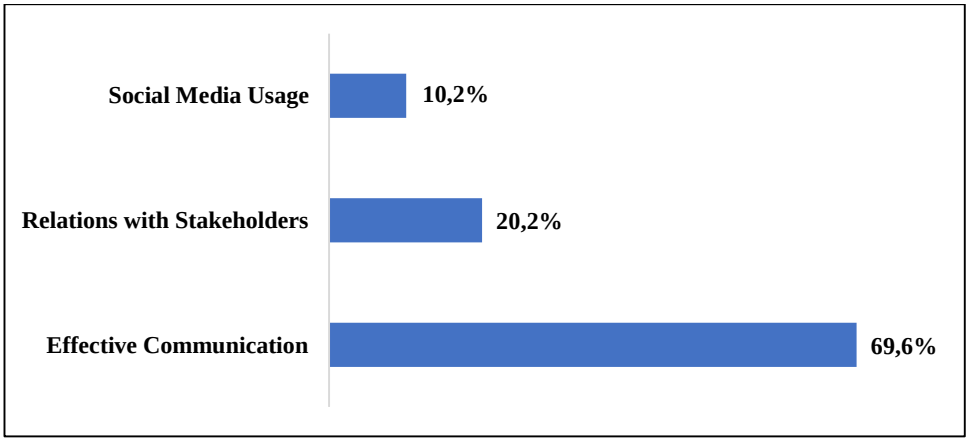
Figure 86: Effect of User's Satisfaction Cluster on Port Service Quality Criteria



Source: Prepared by Author

When the effect of "effective communication and cooperation" cluster criteria on "customer relationship management" criteria is examined in Figure 87; it can be seen that "effective communication" has an effect of 69,6%, "relations with stakeholders" has an effect of 20,2% and "social media usage" has an effect of 10,2%.

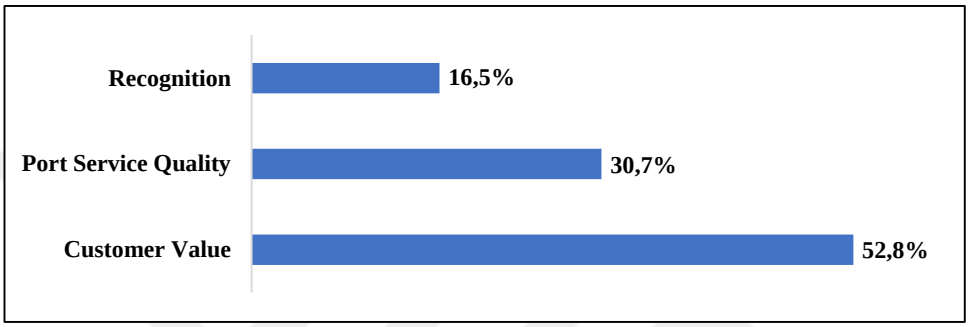
Figure 87: Effect of Effective Communication and Cooperation Cluster on Customer Relationship Management Criteria



Source: Prepared by Author

When the effect of “user’s satisfaction” cluster criteria on “customer relationship management” criteria is examined in Figure 88; it can be seen “customer value” has an effect of 52,8%, “port service quality” has an effect of 30,7% and “recognition” has an effect of 16,5%.

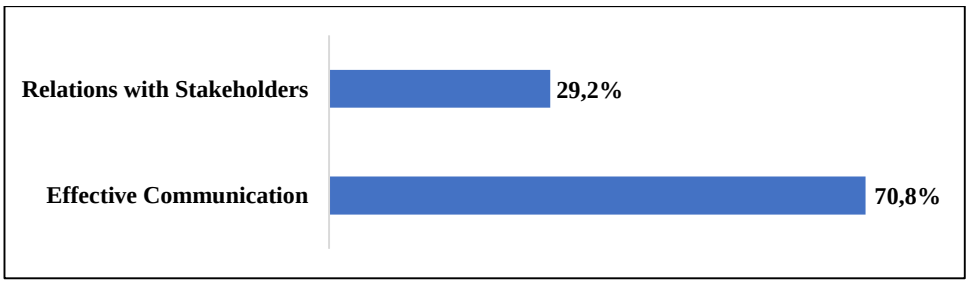
Figure 88: Effect of User’s Satisfaction Cluster on Customer Relationship Management Criteria



Source: Prepared by Author

When the effect of “effective communication and cooperation” cluster criteria on “customer value” criteria is examined in Figure 89; it can be seen that “effective communication” has an effect of 70,8% and “relations with stakeholders” has an effect of 29,2%.

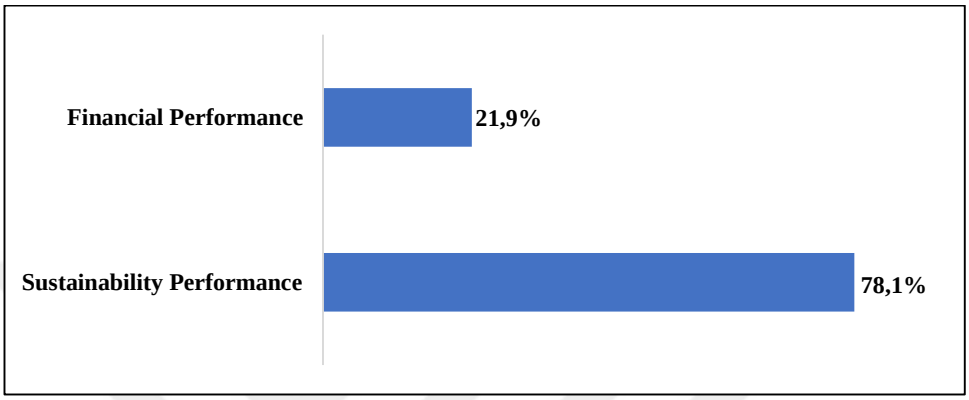
Figure 89: Effect of Effective Communication and Cooperation Cluster on Customer Value Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “customer value” criteria is examined in Figure 90; it can be seen that “sustainability performance” has an effect of 78,1% and “financial performance” has an effect of 21,9%.

Figure 90: Effect of Port Performance Cluster on Customer Value Criteria



Source: Prepared by Author

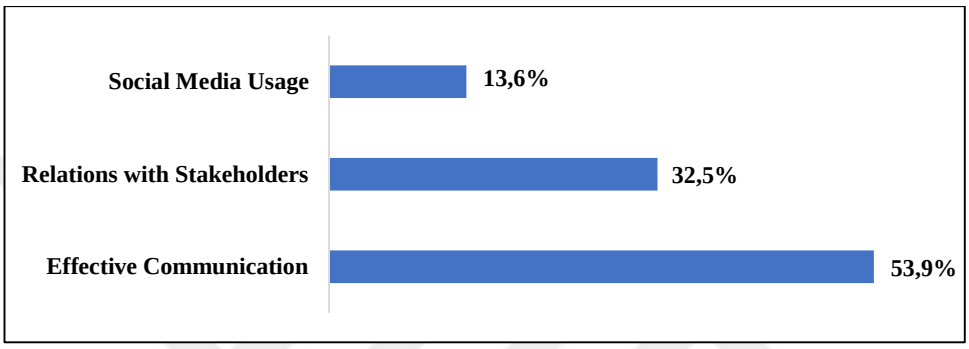
When the effect of “user’s satisfaction” cluster criteria on “customer value” criteria is examined in Figure 91; it can be seen “customer relationship management” has an effect of 61,3% and “port service quality” has an effect of 38,7%.

Figure 91: Effect of User’s Satisfaction Cluster on Customer Value Criteria

Source: Prepared by Author

When the effect of “effective communication and cooperation” cluster criteria on “recognition” criteria is examined in Figure 92; it can be seen that “effective communication” has an effect of 53,9%, “relations with stakeholders” has an effect of 32,5% and “social media usage” has an effect of 13,6%.

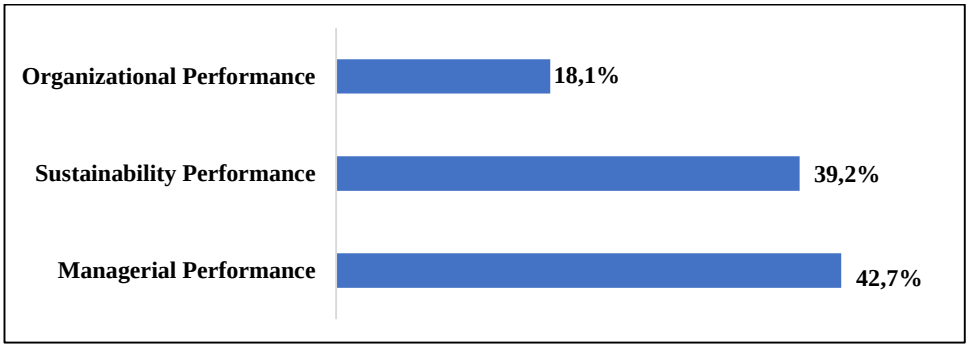
Figure 92: Effect of Effective Communication and Cooperation Cluster on Recognition Criteria



Source: Prepared by Author

When the effect of “port performance” cluster criteria on “recognition” criteria is examined in Figure 93; it can be seen that “managerial performance” has an effect of 42,7%, “sustainability performance” has an effect of 39,2% and “organizational performance” has an effect of 18,1%.

Figure 93: Effect of Port Performance Cluster on Recognition Criteria



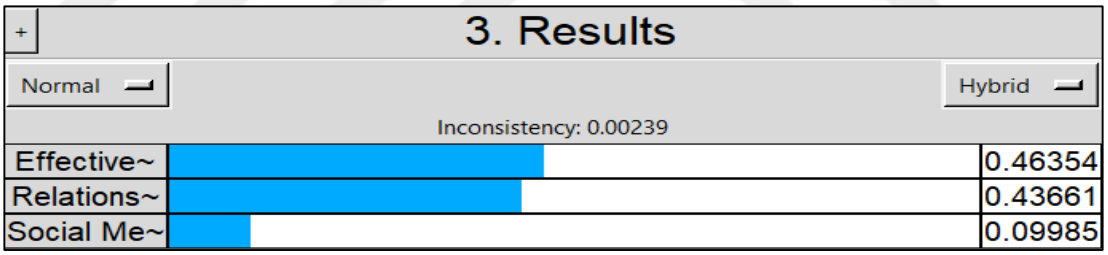
Source: Prepared by Author

4.4.2.6.4. Inconsistency Analysis

One of the most important issues to be considered in the decision process is consistency. When decision makers make many pairwise comparisons in a row, they may forget their answers to previous comparisons. This may result in inconsistent situations among decision makers' responses (Taylor, 2013: 428-429). Therefore, the level of consistency must be within acceptable limits to continue the decision process (Tüzemen and Özdağoğlu, 2007: 223).

It is recommended that the inconsistency ratio for a pairwise comparison be equal to or less than 0.1. If the inconsistency rate is higher than this value, it indicates that a correction for pairwise comparisons is required (Saaty, 2008a: 3). In this study, the inconsistency rates for pairwise comparisons were reached by the Super Decisions program. Figure 94 shows the inconsistency rate (0.00239) resulting from pairwise comparisons regarding the effect of a cluster on criteria.

Figure 94: Obtaining Inconsistency Ratios



Source: Super Decisions 3.2. Software

According to the data from the Super Decisions program, the inconsistency rates of all pairwise comparisons of main clusters and reputation criteria were less than 0.1 (see Table 25 – Table 26). This shows that the judgments of the decision makers are consistent.

Table 25: Inconsistency Rates of Pairwise Comparisons of Main Clusters

Main Cluster	**Inconsistency Rate**
Effective Communication and Cooperation	0,00678
Port and Supply Chain Integration	0,01260
Strategic Port Management	0,01079
Port Performance	0,00922
Physical and Technical Characteristics	0,05505
User's Satisfaction	0,00230

Source: Prepared by Author

Table 26: Inconsistency Rates of Pairwise Comparisons of Reputation Criteria

Reputation Criteria	**Affecting Main Cluster**	**Inconsistency Rate**	**Reputation Criteria**	**Affecting Main Cluster**	**Inconsistency Rate**
Effective Communication	Effective Communication and Cooperation	0,00000	Mission and Vision	Strategic Port Management	0,00000
	Strategic Port Management	0,00000		Port Performance	0,00307
	Port Performance	0,09993		Physical and Technical Characteristics	0,06286
	User's Satisfaction	0,00052		User's Satisfaction	0,00595
Relations with Stakeholders	Effective Communication and Cooperation	0,00000	Port Strategies	Effective Communication and Cooperation	0,00000
	Port Performance	0,01553		Port and Supply Chain Integration	0,00000
	User's Satisfaction	0,00221		Strategic Port Management	0,00000
Social Media Usage	Effective Communication and Cooperation	0,00000		Port Performance	0,00403
	User's Satisfaction	0,00000		Physical and Technical Characteristics	0,00226
Geographic Location	Port and Supply Chain Integration	0,00000		User's Satisfaction	0,00261
	Strategic Port Management	0,00000	Financial Performance	Port and Supply Chain Integration	0,00000
	Port Performance	0,00006		Port Performance	0,00346
	Physical and Technical Characteristics	0,00188		Physical and Technical Characteristics	0,00658

Intermodal Links and Reachability	Port and Supply Chain Integration	0,00000	Managerial Performance	Strategic Port Management	0,00000
	Port Performance	0,00015		Port Performance	0,00347
	Physical and Technical Characteristics	0,00000		User's Satisfaction	0,00345
	User's Satisfaction	0,00350	Operational Performance	Port Performance	0,00161
Range of Services	Port Performance	0,00204	Organizational Performance	Port Performance	0,00032
	Physical and Technical Characteristics	0,00286		User's Satisfaction	0,00239
	User's Satisfaction	0,00310	Sustainability Performance	Port Performance	0,00018
Corporate Governance	Effective Communication and Cooperation	0,00239		User's Satisfaction	0,00225
	Strategic Port Management	0,00000	Draft	Port and Supply Chain Integration	0,00000
	Port Performance	0,00242		Physical and Technical Characteristics	0,00000
	User's Satisfaction	0,00168	Number and Quality of Equipment	Port Performance	0,00346
Customer Relationship Management	Effective Communication and Cooperation	0,01014		User's Satisfaction	0,00000
	User's Satisfaction	0,02846	Port Capacity	Port and Supply Chain Integration	0,07052
Customer Value	Effective Communication and Cooperation	0,00000		Port Performance	0,00000
	Port Performance	0,00000		Physical and Technical Characteristics	0,00000
	User's Satisfaction	0,00000		User's Satisfaction	0,00000
Port Service Quality	Port Performance	0,00000	Port Infrastructure and Superstructure	Port Performance	0,00865
				Physical and Technical Characteristics	0,00000
	User's Satisfaction	0,01094		User's Satisfaction	0,00000
Recognition	Effective Communication and Cooperation	0,01134	Technology and Innovation	Port Performance	0,00420
				Physical and Technical Characteristics	0,02114
	Port Performance	0,02802		User's Satisfaction	0,00202

Source: Prepared by Author

4.4.2.6.5. Obtaining the Limit Matrix

As a result of processing the pairwise comparisons, the limit matrix is obtained through "Computations > Limit Matrix > Graphical" in the Super Decisions 3.2 program. (see Table 27). By reaching the limit matrix, the priority values of the criteria affecting the reputation of a container port are also calculated.

Table 27: Limit Matrix

		E1	E2	E3	I1	I2	I3	S1	S2	S3	P1	P2	P3	P4	P5	F1	F2	F3	F4	F5	U1	U2	U3	U4
Effective Communication	**E1**	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049	0,049
Relations with Stakeholders	**E2**	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037
Social Media Usage	**E3**	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007
Geographic Location	**I1**	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009	0,009
Intermodal Links and Reachability	**I2**	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032	0,032
Range of Services	**I3**	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076	0,076
Port Strategies	**S1**	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082	0,082
Mission and Vision	**S2**	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013	0,013
Corporate Governance	**S3**	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057	0,057
Organizational Performance	**P1**	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069	0,069
Sustainability Performance	**P2**	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060	0,060
Financial Performance	**P3**	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062	0,062
Operational Performance	**P4**	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055	0,055
Managerial Performance	**P5**	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054	0,054
Technology and Innovation	**T1**	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050	0,050
Draft	**T2**	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007	0,007
Port Infrastructure and Superstructure	**T3**	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056	0,056
Port Capacity	**T4**	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053	0,053
Number and Quality of Equipment	**T5**	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037	0,037
Port Service Quality	**U1**	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047	0,047
Customer Relationship Management	**U2**	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031	0,031
Customer Value	**U3**	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022	0,022
Recognition	**U4**	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024

Source: Prepared by Author

4.4.2.6.6. Determining the Priority Levels of the Criteria

Table 28 shows the priority order of criteria determining the reputation of a container port based on limit matrix data. These ratios also show the extent to which the criteria affect the reputation of a container port.

Table 28: Priority Ranking of Reputation Criteria

Code	Criteria	Rate (%)
S1	Port Strategies	8,21
I3	Range of Services	7,69
P1	Organizational Performance	6,90
P3	Financial Performance	6,23
P2	Sustainability Performance	6,08
S3	Corporate Governance	5,76
T3	Port Infrastructure and Superstructure	5,69
P4	Operational Performance	5,56
P5	Managerial Performance	5,41
T4	Port Capacity	5,36
T1	Technology and Innovation	5,07
E1	Effective Communication	4,95
U1	Port Service Quality	4,78
E2	Relations with Stakeholders	3,79
T5	Number and Quality of Equipment	3,75
I2	Intermodal Links and Reachability	3,26
U2	Customer Relationship Management	3,14
U4	Recognition	2,40
U3	Customer Value	2,27
S2	Mission and Vision	1,32
I1	Geographic Location	0,91
E3	Social Media Usage	0,76
T2	Draft	0,71
Total		100,00

Source: Prepared by Author

According to Table 28, “port strategies” are at the top of the priority list. (8,21%). “Range of Services” with 7,69%, “organizational performance” with 6,90%, “financial performance” with 6,23%, and “sustainability performance” with 6,08% take the lead in terms of impact on the reputation of a container port. When the results are examined in terms of clusters, it is seen that the port performance cluster has the highest importance with 30,18%.

The priority order of reputation criteria within the clusters is given in Tables between 29 and 34.

Table 29: Effective Communication and Collaboration Cluster Priority Values

Code	Criteria	Rate (%)
E1	Effective Communication	52,10
E2	Relations with Stakeholders	39,91
E3	Social Media Usage	7,99
Total		100,00

Source: Prepared by Author

When Table 29 examined, it can be seen that the priority order in the Effective Communication and Collaboration cluster is “effective communication” with 52,10%, “relations with stakeholders” with 39,91% and “social media usage” with 7,99%.

Table 30: Port and Supply Chain Integration Cluster Priority Values

Code	Criteria	Rate (%)
I3	Range of Services	64,87
I2	Intermodal Links and Reachability	27,49
I1	Geographic Location	7,64
Total		100,00

Source: Prepared by Author

When Table 30 examined, it can be seen that the priority order in the Port and Supply Chain Integration cluster is “range of services” with 64,87%, “intermodal links and reachability” with 27,49% and “geographic location” with 7,64%.

Table 31: Strategic Port Management Cluster Priority Values

Code	Criteria	Rate (%)
S1	Port Strategies	53,69
S3	Corporate Governance	37,67
S2	Mission and Vision	8,64
Total		100,00

Source: Prepared by Author

When Table 31 examined, it can be seen that the priority order in the Strategic Port Management cluster is “port strategies” with 53,69%, “corporate governance” with 37,67% and “mission and vision” with 8,64%.

Table 32: Port Performance Cluster Priority Values

Code	Criteria	Rate (%)
P1	Organizational Performance	22,87
P3	Financial Performance	20,64
P2	Sustainability Performance	20,15
P4	Operational Performance	18,43
P5	Managerial Performance	17,91
Total		100,00

Source: Prepared by Author

When Table 32 examined, it can be seen that the priority order in the Port Performance cluster is “organizational performance” with 22,87%, “financial performance” with 20,64%, “sustainability performance” with 20,15%, “operational performance” with 18,43% and “managerial performance” with 17,91%.

Table 33: Physical and Technical Characteristics Cluster Priority Values

Code	Criteria	Rate (%)
T3	Port Infrastructure and Superstructure	27,66
T4	Port Capacity	26,03
T1	Technology and Innovation	24,65
T5	Number and Quality of Equipment	18,20
T2	Draft	3,46
Total		100,00

Source: Prepared by Author

When Table 33 examined, it can be seen that the priority order in the Physical and Technical Characteristics Cluster is “port infrastructure and superstructure” with 27,66%, “port capacity” with 26,03%, “technology and innovation” with 24,65%, “number and quality of equipment” with 18,20% and “draft” with 3,46%.

Table 34: User's Satisfaction Cluster Priority Values

Code	Criteria	Rate (%)
U1	Port Service Quality	37,96
U2	Customer Relationship Management	24,92
U4	Recognition	19,07
U3	Customer Value	18,05
Total		100,00

Source: Prepared by Author

When Table 34 examined, it can be seen that the priority order in the User's Satisfaction Cluster is "port service quality" with 37,96%, "customer relationship management" with 24,92%, "recognition" with 19,07%, and "customer value" with 18,05%.

CONCLUSION

In today's globalized world, where geographical, economic, cultural and political boundaries are gradually disappearing and the differences between produced goods and services are decreasing, institutions need some elements that will provide differentiation and superiority and create a competitive advantage for the institution to be successful. Reputation and corporate reputation are increasingly important concepts for institutions in today's competitive conditions.

Ports have seen crucial turning points in modern history where new management philosophies and functions were required (Stopford, 2009: 81). Ports are now widely recognized as the most significant logistics infrastructures integrated into the global supply chains that influence global trade. Compared to earlier times, a port's functions are substantially more complex today (Flynn et al., 2011). Ports must meet a variety of logistical needs of their customers in addition to performing their fundamental purpose of connecting the sea and land for the transportation of cargo (Carbone and Martino, 2003; Yıldırım and Deveci, 2016). Ports are now positioned as hubs of global supply chains; consequently, their performance has become even more crucial for the overall supply chain performance (Robinson, 2002). Therefore, all parties involved in the port industry, including ship-owner companies, intermediaries, logistics providers, and cargo owners, are looking for ways to work together rather than concentrating simply on their particular responsibilities within these chains to strengthen the end-to-end supply chain in this line. In parallel to these developments, the importance of reputation and corporate reputation is also increasing in the port industry.

This study aims to investigate the perceptions of container port stakeholders on the concept of corporate reputation and examine the factors that determine the reputation of container ports. According to the stakeholder theory, reputation is simply what the company is seen to be by its stakeholders. Each stakeholder group has different experiences, knowledge, beliefs, feelings and impressions about the company. Therefore attitudes of container port stakeholders regarding reputation and corporate reputation concepts are evaluated within the stakeholder theory perspective in this study.

The study's first goal is to define reputation and corporate reputation concepts and to present the differences in approach among container port stakeholders to address Gap 1. To reach the mentioned goal, this study defines the concepts of reputation and corporate reputation from different container port stakeholders. Results of the study showed that the concept of reputation is most associated with "trustworthiness". Also, "respectability", "recognition", "perception", "historical background", "evaluation", and "quality" have been the most repeated expressions. Participants from Turkey emphasized the concepts of "trustworthiness" and "recognition" while defining the concept of reputation, and the participants from Europe emphasized the concepts of "evaluation" and "quality". Also, corporate reputation is most associated with "reliability", similar to the reputation concept. Also, "institutionalism", "value", "success", "recognition", and "solution-oriented" have been the most heard expressions about the corporate reputation. The prominence of the concepts of trustworthiness, recognition and perception in the study's results refers to a collective assessment similar to the related studies in the literature. For example, Fombrun and Shanley (1990) define corporate reputation as the public's cumulative judgments, and Argenti and Druckenmiller (2004) define it as collective representation. Also, Barnett et al. (2006) evaluated definitional statements about corporate reputation within the three clusters. According to the awareness cluster, which is one of three clusters, reputation is the representation of knowledge or emotions since these indicate an awareness of the firm. Moreover, it was seen that the participants' definitions were close to the concept of image. Accordingly, Dowling (1993) and Dutton et al. (1994) define reputation as a company's overall impression. Lastly, it is thought that the differences in the perceptions of reputation and corporate reputation concepts of the participants from Turkey and Europe show the importance of cultural differences.

The study's second goal is to identify the determinants of corporate reputation In container ports to address Gap 2. This study identifies determinants of container port reputation into 6 main 23 sub-dimensions to reach that goal. According to the results, Effective Communication and Cooperation, Port and Supply Chain Integration, Strategic Port Management, Port Performance, Physical and Technical

Characteristics and User's Satisfaction are the main variables for container port reputation.

Effective Communication and Cooperation dimension include Effective Communication, Relations with Stakeholders, and Social Media Usage variables. Communication and cooperation with stakeholders are essential for corporate reputation, a concept closely related to stakeholders. Therefore this dimension is encountered in many corporate reputation measurement models. For example, Germanmanager Magazin's measurement includes the ability to communicate dimension. Also, the Capital Most Admired Companies measurement covers the communications and public relations section. Moreover, Trotta and Cavallaro (2012) used the relationship dimension, which includes informative transparency with stakeholders, disclosure, trust, and confidence in their measurement model. Therefore, it was no surprise that port stakeholders emphasized the importance of communication for container ports.

Port and Supply Chain Integration include Geographic Location, Intermodal links and reachability, and Range of Services. This dimension is mainly associated with port literature. For example, Zavadskas et al. (2015) used accessibility of ports as a port selection criteria. Similarly, Ng et al. (2013) determined port connectivity and port location as port selection criteria. Moreover, Solak Fışkın et al. (2016) used port location and intermodal connections as port competitiveness factors. Accordingly, Akbayırlı et al. (2016) determined port location and hinterland connections as port competitiveness determinants.

Strategic Port Management includes Port Strategies, Mission and Vision, and Corporate Governance. Criteria related to strategic management are encountered both in the port literature and in the corporate reputation literature. For example, RepTrak reputation model's governance dimension includes opening and transparency, behaving ethically and doing fair business. Also leadership dimension includes clear vision for future criteria. Likewise, Similarly, Capital Most Admires Companies measurement includes marketing and sales strategies, ethics in competitive behavior, management and company transparency and crisis management strategies. Furthermore, it is seen that port management is emphasized in the port literature. For instance, Akbayırlı et al. (2016) port management and administration which includes

port management type and feature of port operating company used as a port competitiveness determinants. Also, Ng et al. (2013) used port network and alliances and port and terminal handling charges which are related to port strategies as a port selection criteria.

Port Performance includes Organizational Performance, Sustainability Performance, Financial Performance, Operational Performance, and Managerial Performance. The concept of performance has a great importance in both corporate reputation literature and port literature. In particular, it is seen that the issue of financial performance is frequently emphasized. For example, measurement models of Merco, Germanmanager Magazin, Corporate Reputation Quotient, Capital Most Admired Companies, Cravens et al. (2003), Walsh and Wiedmann (2004), Helm (2005), and Walsh and Betty (2007) used financial performance as an indicator. Moreover, Ha et al. (2017) and Ha and Yang (2017) used a port's financial performance as a port performance determinant, and Castillo-Manzano et al. (2009) identified a port's financial performance as a port competitiveness determinant. Sustainability performance, including environmental and social sustainability, has also been highlighted in corporate reputation and port literature. Fortune AMAC, Fortune GMAC, Germanmanager Magazin, Corporate Reputation Quotient, Capital Most Admired Companies, Walsh and Wiedmann (2004), Schwaiger (2004), Helm (2005), Walsh and Betty (2007), and Sarstedt and Schloderer (2010) used items related to sustainability performance. Furthermore, Ha et al. (2017) and Hossain et al, (2019) used environmental sustainability as a port performance indicator and Wiegmans et al. (2008) used sustainability performance as a port selection criteria. Finally, it is seen that managerial and organizational performance indicators exist in both reputation and port literature, while operational performance indicators are often seen in port literature.

Physical and Technical Characteristics include Technology and Innovation, Draft, Port Infrastructure and Superstructure, Port Capacity, Number, and Quality of Equipment. It can be seen that the technology and innovation concept has great importance in both corporate reputation literature and port literature. For example, Fortune AMAC, Fortune GMAC, Germanmanager Magazin, RepTrak Reputation Model, Merco, and Verčič et al. (2016) used technology and innovation as

determinants. Also, Nguyen et al. (2018) used information technology as a port performance indicator, and Pak et al. (2015) used technological resources as a port service quality indicator. Other physical and technical characteristics dimension determinants generally belong to relevant port literature. For instance, port infrastructure and superstructure were identified as port selection variables in the studies of Lirn et al. (2004), Chang et al. (2008), and Wiegmans et al. (2008). In addition, Solak Fışkın et al. (2016) used port facility and equipment and port draft as a port competitiveness determinant. Furthermore, Wiegmans et al. (2008) and Zavadskas et al. (2015) used port capacity as a port selection indicator.

User's Satisfaction includes Port Service Quality, Customer Relationship Management, Customer Value, and Recognition. The concept of service quality is very important in both corporate reputation literature and port literature. Fortune AMAC, Fortune GMAC, Germanmanager Magazin, RepTrak Reputation Model, Merco, Corporate Reputation Quotient, Capital Most Admired Companies, Walsh and Wiedmann (2004), Schwaiger (2004), Cravens et al. (2003), Helm (2005), Walsh and Betty (2007) and Boshoff (2009) used product and service quality as a determinant for reputation measurement. Also, Song and Yeo (2004), Solak Fışkın et al. (2016), and Akbayırlı et al. (2016) used port service quality as a port competitiveness criteria. Similarly, Ha et al. (2017) used service fulfillment as a port performance indicator, and Ng et al. (2013) used port service as a port selection criteria. In addition, the concept of recognition which means internationally has emphasized in corporate reputation literature. For instance, Fortune GMAC's company's in doing business globally, Merco's global dimension and international presence, and Germanmanager Magazin's internationalization items highlighted this issue. Moreover, determinants related to customer relations are also used in port literature. For example, Ha (2003), Ugboma et al. (2007), and Kolanović et al. (2008) used items related to customer relations for measuring port service quality.

This study also investigated the effects of reputation on container ports to address Gap 3. The research results show that the participants often see the concept of reputation as a selection criterion and state that a reputable port is a port preferred by their customers. This situation was supported in the study of Onut et al. (2011), which used good reputation as a container port selection criteria. Accordingly, participants

mainly emphasized that reputation would bring a competitive advantage to the ports. Boyd et al. (2010), Ponzi et al. (2011), Roberts and Dowling, (2002), and Shamsie, (2003) also highlighted reputations's positive effect on competitive advantage in their studies. Similarly, a good reputation's effect on financial performance is also revealed in both study results and relevant literature. The positive relationship between corporate reputation and financial performance was discovered in the studies of Eberl and Schwaiger (2005), Rindova et al. (2005), and Roberts and Dowling (2002).

When the obtained 6 main 23 sub-dimensions for container port reputation are evaluated, it is observed that there is a mixed framework that includes criteria from both the port and reputation literature. Especially, it is seen that the Port and Supply Chain Integration and Physical and Technical Characteristics dimensions are closely related to the port literature, while the other dimensions include criteria from both the port and reputation literature.

When the ANP results were examined, it can be seen that Port Strategies is determined as the top priority criteria for the reputation of a container port. This situation can be interpreted as that the port managers handle the concept of corporate reputation as a strategic management issue, and it can be concluded that the concept of reputation should be integrated into the strategies of container ports such as management, marketing and human resources. Also, determining the range of services provided as the second highest priority criteria for container port reputation indicates the increasing expectations of port stakeholders. It is not surprising that this criteria is highly important, especially considering that we are in the age of fifth generation ports and increasing port service comprehensiveness and the role of port stakeholders. Moreover, in the ANP results, performance criteria such as organizational, financial and sustainability performance were prioritised for a container port's reputation. This situation shows that port reputation is closely associated with various dimensions of port performance in parallel with the literature. In addition, it has been observed that the criteria related to the physical and technical characteristics of the port, which directly affect the operational performance of the ports, are of high importance for reputation. It is thought that this situation is interpreted by port managers as infrastructure and superstructure investments to be made in the port that will increase both the performance and reputation of the port.

When the semi-structured interview and ANP results are evaluated, some differences are observed in the prioritized criteria. For example, according to the interview results, geographic location was one of the most coded criteria. However, in the ANP results, it is seen as one of the least important criteria. This difference is thought to be because port users care more about geographical location, and the ANP research is carried out only with senior managers of container ports. Also, according to the interview results, operational performance was the most coded criteria but in the ANP research, port strategies was the most prior criteria in terms of the reputation of container ports. Similarly, operational performance, which is related to the primary reason for the existence of a port, has been the first criteria that comes to mind for all stakeholders. Nevertheless, in the ANP research, it is thought that senior container port managers prioritize port strategies by evaluating the concept of reputation from a broader perspective, as they prioritize the regulated and categorized reputation criteria obtained from the interviews with their perspectives.

Theoretical Contribution of the Study

The challenge of describing and measuring corporate reputation in a way that enables it to be explored systematically and in context has occasionally driven reputation researchers to express their frustration (Barnett and Pollock, 2012). Although reputation has been considered a critical intangible asset for establishing long-term competitive advantage, this intangibility has impeded rigorous measurement (Wartick, 2002; Walker, 2010). With this challenge in mind, this study is one of the first to assess how container port stakeholders form perceptions about corporate reputation and its determinants and also evaluate the priority levels of the determinants and their relationship with each other. Also, this study contributes to stakeholder theory by determining different container port stakeholder perceptions about corporate reputation concept and determinants. Moreover, this dissertation tries to fill the gap where the corporate reputation concept is relatively less studied from a maritime and port industry context. The theoretical contributions of the study can be summarized below:

- This study contributes to corporate reputation definition from the container port industry context.
- The expected benefits of a good reputation in container ports are revealed from the container port stakeholders' perspective.
- Dimensions for corporate reputation differ by stakeholder. This study provides a theory-based conceptualization of the underlying dimensions of corporate reputation according to container port stakeholders.
- With the help of the ANP method, this study contributes a comprehensive model for how a container port's reputation can be evaluated.

Practical Contribution of the Study

While making many theoretical contributions, this thesis also has several practical contributions. This study offers significant guidance for container port managers or managers who are involved with managing container ports' reputation and addressing the needs of different stakeholder groups.

This study identifies determinants of container port reputation into 6 main 23 sub-dimensions. Results of the study provide port managers with a framework for analyzing their reputation through the eyes of their stakeholders. Also, with the help of the ANP results which includes the priority levels of the determinants and their relationship with each other, port managers can decide which dimension of reputation to focus on primarily. In addition, port managers equip this framework to apply a strategic approach to maintaining and improving the container ports' corporate reputation.

Moreover, this study highlights the effects of reputation on the container ports. Results of the study suggest that reputable ports are profitable, preferred by customers and qualified employees, have a competitive advantage, and have high service quality. This means that port managers could apply long-term strategic perspectives or re-arrange their strategies for reputational development to gain reputation benefits.

Lastly, port managers could be aware of their status and stakeholders' expectations to provide organizational survival in the highly competitive container port environment.

Limitations of the Study and Further Research

The study is subject to some limitations; in this way, further researches need to be done. The qualitative part of the study includes participants from container port stakeholders in Turkey and Europe. In future studies, different perspectives can be obtained by reaching participants from other continents, including different port stakeholders.

Determinants of container ports' reputation were revealed in the qualitative part of the study. After the statistical verification and validation, an index or scale could be created with these variables. Thus, a more numerically based and concrete measurement method can be obtained.

In this study, priority levels of the determinants of container port reputation and their relationship with each other were analyzed by the ANP method with a sample of 10 senior container port managers only in Turkey. In future studies, the determinants of corporate reputation in container ports can be analyzed by expanding the sample with different stakeholders from other countries using various MCDM methods together.

Potential benefits of a good reputation on container ports were determined in the qualitative part of the study. Whether or not these expected benefits are realized in future studies can be evaluated within the framework of different port stakeholders samples by using various quantitative methods.

This study evaluated the reputation concept in the container port industry. In future studies, different maritime and port industry areas can be considered as samples. Corporate reputation determinants from different samples can be compared. In addition, the reputation concept can be discussed with different theories apart from the stakeholder theory.

As the study was conducted during the Covid-19 pandemic, the obtained results may have been affected by the pandemic conditions. In future studies, the research can be repeated under normal conditions and the obtained results can be compared.

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APPENDICES

Appendix 1: Semi-Structured Interview Questions (1/2)

Sayın İlgili,

Ben İlke Sezin AYAZ. İzmir Dokuz Eylül Üniversitesi Denizcilik Fakültesi'nde araştırma görevlisi olarak çalışmaktayım. Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Denizcilik İşletmeleri Yönetimi doktora programında eğitimime devam etmekteyim.

"Kurumsal İtibarın Belirleyicileri: Konteyner Limanları Üzerine Bir Analiz" başlıklı doktora tezim ile ilgili çalışmalarımı danışmanım Doç. Dr. Seçil SİGALI danışmanlığında yürütmekteyim. Doktora tezimin uygulama kısmı ile ilgili bu çalışma ile liman paydaşlarının itibar, kurumsal itibar ve liman itibarı kavramları ile ilgili görüşlerini öğrenmek amaçlanmaktadır. Görüşmelerin yaklaşık 20-40 dakika sürmekte, elde ettiğim bilgiler sadece doktora tezim için kullanılmakta, kişi ve kurum bilgilerine kesinlikle yer verilmemektedir. Denizcilik sektöründe çalışan bir uzman olarak değerli görüşlerinizi benimle paylaşırsanız çok sevinirim.

İsteğiniz doğrultusunda sesli ya da görüntülü görüşme yaparak sorularımı size yöneltebilirim ya da cevaplarınızı bana bu word dosyası ile gönderebilirsiniz.

İşbirliğiniz için şimdiden çok teşekkür ederim.

Saygılarımla.

Araş. Gör. İlke Sezin AYAZ

Appendix 1: Semi-Structured Interview Questions (2/2)

Çalışmaya Katılım Onayı

Yukarıda yer alan ve araştırmadan önce katılımcıya verilmesi gereken bilgileri okudum ve anladım. Çalışma ile ilgili ayrıntılı açıklamalar araştırmacı tarafından yapıldı. Bu araştırmaya kendi isteğimle, hiçbir baskı ve zorlama olmaksızın katılmayı kabul ediyorum.

Katılımcının Adı Soyası:

Tarih ve İmza:

Demografik Bilgiler

- Yaşınız:
- Öğrenim durumunuz:
- Departmanınız:
- Pozisyonunuz:
- Çalışma hayatınızdaki toplam deneyim süreniz:
- Çalıştığınız sektördeki deneyim süreniz:
- Aynı şirketteki çalışma süreniz:

Kurumsal İtibar Yönetimi İle İlgili Sorular

- İtibar ve kurumsal itibar kavramları sizin için ne ifade ediyor?
- Liman itibarı kavramı size ne ifade ediyor?
- Bir konteyner limanın itibarını belirleyen faktörler nelerdir?
- Bir liman daha itibarlı olursa ne olur? İtibarlı liman ile itibarsız liman arasında farklar var mıdır?

Appendix 2: Pairwise Comparison Questionnaire (1/32)

Değerli Katılımcı,

Bu ikili karşılaştırmalar anketi, Doç. Dr. Seçil SİGALI danışmanlığında yürütülmekte olan doktora tezi kapsamında hazırlanmıştır. Çalışma bir konteyner limanının itibarını belirleyen faktörleri ortaya çıkarmayı hedeflemektedir. Bu kapsamda önceden belirlenmiş olan bir konteyner limanının itibarını belirleyen 23 adet faktörün birbiri üzerindeki etkileri araştırılmaktadır. Bu anket ile sizden belirlenen 23 faktörün her birinin diğer faktörlerden ne derece etkilendiğini bir konteyner limanının itibarı açısından değerlendirmenizdir. Vereceğiniz yanıtlar ile bir konteyner limanının itibarını etkileyen faktörlerin önem düzeyleri bakımından sıralanması ve limanların stratejik yönetimleri ve performanslarına katkıda bulunulması hedeflenmektedir. Kıymetli vaktinizi ayırdığınız ve bilgilerinizi benimle paylaştığınız için çok teşekkür ederim.

Araş. Gör. İlke Sezin AYAZ

DEÜ Denizcilik İşletmeleri Yönetimi

Doktora Programı

Çalışmaya Katılım Onayı

Yukarıda yer alan ve araştırmadan önce katılımcıya verilmesi gereken bilgileri okudum ve anladım. Çalışma ile ilgili ayrıntılı açıklamalar araştırmacı tarafından yapıldı. Bu araştırmaya kendi isteğimle, hiçbir baskı ve zorlama olmaksızın katılmayı kabul ediyorum.

Katılımcının Adı Soyası:

Tarih ve İmza:

Appendix 2: Pairwise Comparison Questionnaire (2/32)

BİRİNCİ BÖLÜM – KİŞİSEL BİLGİLER

Göreviniz:

Eğitim Durumunuz: Sektörel Deneyiminiz (yıl):

İKİNCİ BÖLÜM-TANIMLAR

İtibar kavramı bir kişiye veya nesneye dışarıdan yani toplum tarafından gösterilen saygı, hürmet, değerdir. Kurumsal itibar kavramı ise bir işletmenin; müşterileri, ortakları, çalışanları, tedarikçileri, rakipleri, finans kaynakları kısacası tüm paydaşlarının zihninde elde ettiği görünmeyen değer olarak kabul edilmektedir.

Yapılan kapsamlı literatür taraması ve gerçekleştirilen yarı yapılandırılmış görüşmeler neticesinde bir konteyner limanının itibarını belirleyen faktörler "Etkili İletişim ve İşbirliği", "Liman ve Tedarik Zinciri Entegrasyonu", "Stratejik Liman Yönetimi", "Liman Performansı", "Fiziksel ve Teknik Özellikler" ve "Liman Kullanıcılarının Tatmini" olmak üzere 6 ana başlık altında 23 alt kriter tespit edilmiştir. Bu kriterlerin tanımları aşağıda ifade edilmiştir.

ETKİLİ İLETİŞİM VE İŞBİRLİĞİ	**TANIM**
Etkili İletişim	Limanın kullanıcılarına ve paydaşlarına gerekli bilgileri en net haliyle ve mümkün olan en kısa sürede iletmesidir.
Paydaşlar ile İlişkiler	Limanın paydaşları ile ilişkilerini sürekli gözden geçirmesi, iyileştirilmesi gereken alanları saptaması ve paydaşlar ile diyaloğun ve iş birliğinin geliştirilmesidir.
Sosyal Medya Kullanımı	Limanın sosyal medya platformlarında var olması ve bu platformları etkin bir şekilde kullanmasıdır.

Appendix 2: Pairwise Comparison Questionnaire (3/32)

LİMAN VE TEDARİK ZİNCİRİ ENTEGRASYONU	TANIM
Coğrafi Konum	Limanın dünya üzerinde bulunduğu konumdur.
İntermodal Bağlantılar ve Ulaşılabilirlik	Demiryolu, karayolu, RO-RO gibi taşıma türlerini kullanarak limana kolayca ulaşma imkânı bulunmasıdır.
Verilen Hizmetlerin Çeşitliliği	Limanın konteyner dışında başka yük tiplerine de hizmet vermesi ve yükleme-boşaltma faaliyetlerinin yanı sıra diğer lojistik hizmetlere de destek olmasıdır.

STRATEJİK LİMAN YÖNETİMİ	TANIM
Liman Stratejileri	Limanın pazarlama, fiyatlandırma, rekabet vb. stratejilerini içermektedir.
Misyon ve Vizyon	Limanın misyonu ve vizyonunu içermektedir.
Kurumsal Yönetim	Limanın etik ilkelere ve sahiplik yapısına uygun olarak adil, şeffaf, sorumlu ve hesap verebilir şekilde yönetilmesidir.

LİMAN PERFORMANSI	TANIM
Örgütsel Performans	Liman çalışanlarını oluşturan birey ya da grupların performansıdır.
Sürdürülebilirlik Performansı	Limanın çevre ile olumlu etkileşim içerisinde olmasını, çalışanları ve paydaşları ile bir memnuniyet ortamı yaratarak topluma faydalı olmasını kapsamaktadır.
Finansal Performans	Limanın finansal pozisyonunu ve yatırımlarını içermektedir.
Operasyonel Performans	Liman operasyonlarının etkinliği ve verimliliğini içermektedir.
Yönetsel Performans	Yöneticilerin kendi sorumlu oldukları işler ve çalıştıkları limana katkıları açısından performanslarıdır.

Appendix 2: Pairwise Comparison Questionnaire (4/32)

FİZİKSEL VE TEKNİK ÖZELLİKLER	TANIM
Teknoloji ve İnovasyon	Limanın teknolojik gelişmeleri yakından takip etmesi ve bu gelişmeleri liman operasyon süreçlerine dahil etmesidir.
Draft	Limanın tabanı ve su hattı arasında kalan mesafedir.
Limanın Altyapısı ve Üstyapısı	Limanın sahip olduğu iskele, mendirek, dalgakıran, rıhtım, apron, depolama alanları, çalışma ve yaşam alanları gibi yapıları kapsamaktadır.
Liman Kapasitesi	Limanın mevcut imkânları ile hizmet verebileceği en yüksek yük ve gemi hacmidir.
Ekipman Sayısı ve Kalitesi	Limanın sahip olduğu makine ve ekipmanların sayısı ve günümüz limancılık standartlarına uygunluğudur.

LİMAN KULLANICILARININ TATMİNİ	TANIM
Hizmet Kalitesi	Limanın kullanıcılarının beklenti ve isteklerini karşılayabilme düzeyidir.
Müşteri İlişkileri Yönetimi	Limanın kullanıcılarının ihtiyaç ve isteklerini anlaması, yaşanılan sorunlara çözüm bulması ve geri bildirimleri de dikkate alarak bu süreci yönetmesidir.
Müşteri Değeri	Limanın kullanıcılarına liman operasyonları için ödedikleri bedelden daha fazla fayda sunmasıdır.
Tanınırlık	Limanın birçok liman kullanıcısı tarafından bilinir olması ve uluslararası konteyner taşıma hatları tarafından sıklıkla kullanılıyor olmasıdır.

Appendix 2: Pairwise Comparison Questionnaire (5/32)

ÜÇÜNCÜ BÖLÜM-KONTEYNER LİMANLARI İÇİN İTİBAR KRİTERLERİN KARŞILAŞTIRILMASI

Bu bölümde bir konteyner limanının itibarını etkileyen faktörlerin birbirine göre önemini örnektekine benzer biçimde değerlendiriniz.

İşaretlenen sayısal değerlerin anlamı:

Soldaki 9-2 aralığında değerlerin tercih edilmesi, soldaki kriterin sağdakine göre daha önemli olduğunu gösterir.

Sağdaki 2-9 aralığında değerlerin tercih edilmesi, sağdaki kriterin soldakine göre daha önemli olduğunu gösterir.

1: İki kriterin de eşit önem değerine sahip olduğu;

3: Kısmen önemli olduğu;

5: Önemli olduğu;

7: Çok önemli olduğu;

9: Aşırı derecede önemli olduğunu;

2, 4, 6 ve 8 ise söz konusu alt ve üst puanlamaların ara değerlerini göstermektedir.

Her satırda tek bir işaretleme yapılması beklenmektedir.

Appendix 2: Pairwise Comparison Questionnaire (6/32)

Örnekler: Aşağıda, iki kriterden solda "Etkili İletişim ve İşbirliği" ile sağdaki "Liman Performansı" kriterleri karşılaştırılmaktadır. Aşağıdaki işaretlemenin anlamı şu şekildedir;

	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	■	☐	☐	Liman Performansı

Sağ dilimdeki 2-9 aralığnda olan 7 sayısının işaretlenmesi, sağ dilimden "Liman Performansı"nın "Etkili İletişim ve İşbirliği"ne göre **çok önemli** bir kriter olduğu anlamına gelmektedir.

Aşağıda, iki kriterden soldaki "Stratejik Liman Yönetimi" ile sağdaki "Liman Kullanıcılarının Tatmini" kriterleri karşılaştırılmaktadır. Aşağıdaki işaretlemenin anlamı şu şekildedir;

	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	■	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Sol dilimdeki 2-9 aralığnda olan 3 sayısının işaretlenmesi, sol dilimden "Stratejik Liman Yönetimi"nin "Liman Kullanıcılarının Tatmini"ne göre **kısmen önemli** bir kriter olduğu anlamına gelmektedir.

Appendix 2: Pairwise Comparison Questionnaire (7/32)

Aşağıdaki karşılaştırmalarda **"Etkili İletişim ve İşbirliğine"** bir konteyner limanının itibarı açısından hangisinin etkili olduğunu değerlendiriniz.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman ve Tedarik Zinciri Entegrasyonu
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Appendix 2: Pairwise Comparison Questionnaire (8/32)

Aşağıdaki karşılaştırmalarda **"Liman ve Tedarik Zinciri Entegrasyonu"** bir konteyner limanının itibarı açısından hangisinin etkili olduğunu değerlendiriniz.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman ve Tedarik Zinciri Entegrasyonu
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler

Appendix 2: Pairwise Comparison Questionnaire (9/32)

Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Fiziksel ve Teknik Özellikler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Aşağıdaki karşılaştırmalarda **"Stratejik Liman Yönetimi"** bir konteyner limanının itibarı açısından hangisinin etkili olduğunu değerlendiriniz.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman ve Tedarik Zinciri Entegrasyonu
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Appendix 2: Pairwise Comparison Questionnaire (10/32)

Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Fiziksel ve Teknik Özellikler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Aşağıdaki karşılaştırmalarda **"Liman Performansı"** bir konteyner limanının itibarı açısından hangisinin etkili olduğunu değerlendiriniz.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman ve Tedarik Zinciri Entegrasyonu
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi

Appendix 2: Pairwise Comparison Questionnaire (11/32)

Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Fiziksel ve Teknik Özellikler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Aşağıdaki karşılaştırmalarda **"Fiziksel ve Teknik Özellikler"** bir konteyner limanının itibarı açısından hangisinin etkili olduğunu değerlendiriniz.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Stratejik Liman Yönetimi

Appendix 2: Pairwise Comparison Questionnaire (12/32)

Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Liman ve Tedarik Zinciri Entegrasyonu	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Stratejik Liman Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Fiziksel ve Teknik Özellikler
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Fiziksel ve Teknik Özellikler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Aşağıdaki karşılaştırmalarda **"Liman Kullanıcılarının Tatmini"** bir konteyner limanının itibarı açısından hangisinin etkili olduğunu değerlendiriniz.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Performansı
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini
Liman Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kullanıcılarının Tatmini

Appendix 2: Pairwise Comparison Questionnaire (13/32)

DÖRDÜNCÜ BÖLÜM-KONTEYNER LİMANLARI İÇİN İTİBAR KRİTERLERİN İKİLİ KARŞILAŞTIRILMASI

Bu bölümde, ikinci bölümde tanımlamaları verilmiş olan bir konteyner limanının itibarını belirleyen kriterlerinin birbirine etkisini örnektekine benzer biçimde değerlendiriniz.

Örnek: Etkili İletişim kriterini etkilemesi bakımından aşağıdaki kriterleri karşılaştırınız.

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Paydaşlar ile İlişkiler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	■	☐	☐	☐	☐	Sosyal Medya Kullanımı

Sağ dilimdeki 2-9 aralında olan 5 sayısının işaretlenmesi, sağ dilimden "Sosyal Medya Kullanımı" kriterinin "Etkili İletişim Kriterini" "Paydaşlar ile İlişkiler "kriterine göre önemli ölçüde etkilediği, önem derecesini temsilen 5 sayısının seçilmesinden anlaşılmaktadır.

Bir konteyner limanının itibarını düşünerek; **Etkili İletişim** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Paydaşlar ile İlişkiler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Kurumsal Yönetim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Stratejileri
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans

Appendix 2: Pairwise Comparison Questionnaire (14/32)

Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans

Bir konteyner limanının itibarını düşünerek; **Paydaşlar ile İlişkiler** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı

Appendix 2: Pairwise Comparison Questionnaire (15/32)

Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans

Bir konteyner limanının itibarını düşünerek; **Sosyal Medya Kullanımı** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Paydaşlar ile İlişkiler
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Appendix 2: Pairwise Comparison Questionnaire (16/32)

Bir konteyner limanının itibarını düşünerek; **Ekipman Sayısı ve Kalitesi** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Bir konteyner limanının itibarını düşünerek; **Liman Kapasitesi** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Coğrafi Konum	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	İntermodal Bağlantılar ve Ulaşılabilirlik
Coğrafi Konum	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Verilen Hizmetlerin Çeşitliliği

Appendix 2: Pairwise Comparison Questionnaire (17/32)

İntermodal Bağlantılar ve Ulaşılabilirlik	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Verilen Hizmetlerin Çeşitliliği
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Bir konteyner limanının itibarını düşünerek; **Limanın Altyapısı ve Üstyapısı** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans

Appendix 2: Pairwise Comparison Questionnaire (18/32)

Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınrlık

Bir konteyner limanının itibarını düşünerek; **Teknoloji ve İnovasyon** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Ekipman Sayısı ve Kalitesi
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans

Appendix 2: Pairwise Comparison Questionnaire (19/32)

Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans

Bir konteyner limanının itibarını düşünerek; **Hizmet Kalitesi** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans

Appendix 2: Pairwise Comparison Questionnaire (20/32)

Bir konteyner limanının itibarını düşünerek; **Müşteri Değeri** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Paydaşlar ile İlişkiler

Bir konteyner limanının itibarını düşünerek; **Müşteri İlişkileri Yönetimi** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Paydaşlar ile İlişkiler
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı
Paydaşlar ile İlişkiler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı

Appendix 2: Pairwise Comparison Questionnaire (21/32)

Bir konteyner limanının itibarını düşünerek; **Finansal Performans** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	İkili Karşılaştırma Önem Derecesi																	Boyut B
	←								1	→								
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Limanın Altyapısı ve Üstyapısı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
İntermodal Bağlantılar ve Ulaşılabilirlik	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Verilen Hizmetlerin Çeşitliliği

Bir konteyner limanının itibarını düşünerek; **Operasyonel Performans** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	İkili Karşılaştırma Önem Derecesi																	Boyut B
	←								1	→								
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans

Appendix 2: Pairwise Comparison Questionnaire (22/32)

Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans

Bir konteyner limanının itibarını düşünerek; **Örgütsel Performans** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Appendix 2: Pairwise Comparison Questionnaire (23/32)

Bir konteyner limanının itibarını düşünerek; **Sürdürülebilirlik Performansı** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Appendix 2: Pairwise Comparison Questionnaire (24/32)

Bir konteyner limanının itibarını düşünerek; **Yönetsel Performans** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Kurumsal Yönetim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Stratejileri
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Appendix 2: Pairwise Comparison Questionnaire (25/32)

Bir konteyner limanının itibarını düşünerek; **Coğrafi Konum** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
İntermodal Bağlantılar ve Ulaşılabilirlik	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Verilen Hizmetlerin Çeşitliliği
Liman Stratejileri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Misyon ve Vizyon
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Ekipman Sayısı ve Kalitesi
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı

Appendix 2: Pairwise Comparison Questionnaire (26/32)

Bir konteyner limanının itibarını düşünerek; **İntermodal Bağlantılar ve Ulaşılabilirlik** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	İkili Karşılaştırma Önem Derecesi																	Boyut B
	←								1	→								
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Coğrafi Konum	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Verilen Hizmetlerin Çeşitliliği
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Bir konteyner limanının itibarını düşünerek; **Draft** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	İkili Karşılaştırma Önem Derecesi																	Boyut B
	←								1	→								
	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Coğrafi Konum	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	İntermodal Bağlantılar ve Ulaşılabilirlik

Appendix 2: Pairwise Comparison Questionnaire (27/32)

Bir konteyner limanının itibarını düşünerek; **Verilen Hizmetlerin Çeşitliliği** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Ekipman Sayısı ve Kalitesi
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Limanın Altyapısı ve Üstyapısı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Appendix 2: Pairwise Comparison Questionnaire (28/32)

Bir konteyner limanının itibarını düşünerek; **Kurumsal Yönetim** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Paydaşlar ile İlişkiler
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı
Paydaşlar ile İlişkiler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı
Liman Stratejileri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Misyon ve Vizyon
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık
Müşteri İlişkileri Yönetimi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Tanınırlık

Appendix 2: Pairwise Comparison Questionnaire (29/32)

Bir konteyner limanının itibarını düşünerek; **Liman Stratejileri** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Paydaşlar ile İlişkiler
İntermodal Bağlantılar ve Ulaşılabilirlik	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Verilen Hizmetlerin Çeşitliliği
Kurumsal Yönetim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Misyon ve Vizyon
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Ekipman Sayısı ve Kalitesi
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi

Appendix 2: Pairwise Comparison Questionnaire (30/32)

Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Draft	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Limanın Altyapısı ve Üstyapısı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi

Appendix 2: Pairwise Comparison Questionnaire (31/32)

Bir konteyner limanının itibarını düşünerek; **Misyon ve Vizyon** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Kurumsal Yönetim	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Stratejileri
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Operasyonel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Finansal Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sürdürülebilirlik Performansı
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Operasyonel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Liman Kapasitesi
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı
Ekipman Sayısı ve Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Limanın Altyapısı ve Üstyapısı

Appendix 2: Pairwise Comparison Questionnaire (32/32)

Liman Kapasitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Limanın Altyapısı ve Üstyapısı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Teknoloji ve İnovasyon
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri Değeri
Hizmet Kalitesi	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi
Müşteri Değeri	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Müşteri İlişkileri Yönetimi

Bir konteyner limanının itibarını düşünerek; **Tanınırlık** kriterini etkileme açısından aşağıdaki kriterleri karşılaştırınız.

Boyut A	**İkili Karşılaştırma Önem Derecesi**																	**Boyut B**
	←								**1**	→								
	9	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Paydaşlar ile İlişkiler
Etkili İletişim ve İşbirliği	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı
Paydaşlar ile İlişkiler	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Sosyal Medya Kullanımı
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Yönetsel Performans
Sürdürülebilirlik Performansı	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans
Yönetsel Performans	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Örgütsel Performans

Katılımınız İçin Teşekkür Ederim…

Appendix 3: Supermatrix (1/1)

		E1	E2	E3	I1	I2	I3	S1	S2	S3	P1	P2	P3	P4	P5	T1	T2	T3	T4	T5	U1	U2	U3	U4
Effective Communication	**E1**	0,0%	14,9%	4,6%	0,0%	0,0%	0,0%	5,0%	0,0%	12,0%	0,0%	0,0%	0,0%	0,0%	19,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	24,3%	23,9%	23,4%
Relations with Stakeholders	**E2**	14,3%	0,0%	13,5%	12,7%	0,0%	0,0%	6,9%	0,0%	11,3%	0,0%	14,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	10,0%	6,9%	14,1%
Social Media Usage	**E3**	4,3%	3,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,5%	5,9%
Geographic Location	**I1**	0,0%	0,0%	0,0%	0,0%	8,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	16,1%	0,0%	9,4%	0,0%	0,0%	0,0%	0,0%	0,0%
Intermodal Links and Reachability	**I2**	0,0%	0,0%	0,0%	10,2%	0,0%	15,5%	11,3%	0,0%	0,0%	0,0%	0,0%	10,0%	0,0%	0,0%	0,0%	7,2%	0,0%	6,7%	0,0%	0,0%	0,0%	0,0%	0,0%
Range of Services	**I3**	24,5%	24,5%	0,0%	3,3%	6,9%	0,0%	3,7%	0,0%	0,0%	0,0%	0,0%	7,6%	0,0%	22,8%	19,8%	0,0%	23,4%	3,5%	19,8%	0,0%	0,0%	0,0%	0,0%
Port Strategies	**S1**	8,6%	0,0%	0,0%	8,9%	13,7%	13,7%	0,0%	8,2%	11,3%	0,0%	0,0%	15,3%	34,3%	7,0%	15,4%	0,0%	0,0%	15,4%	15,4%	0,0%	0,0%	0,0%	0,0%
Mission and Vision	**S2**	0,0%	0,0%	0,0%	3,0%	0,0%	0,0%	5,6%	0,0%	14,4%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Corporate Governance	**S3**	10,0%	18,6%	0,0%	0,0%	0,0%	0,0%	6,2%	8,0%	0,0%	34,3%	14,2%	0,0%	0,0%	12,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Organizational Performance	**P1**	3,8%	3,5%	0,0%	0,0%	0,0%	0,0%	2,5%	0,0%	6,3%	0,0%	3,9%	4,4%	24,5%	7,4%	4,0%	0,0%	5,4%	0,0%	4,7%	57,1%	0,0%	0,0%	10,2%
Sustainability Performance	**P2**	7,7%	8,3%	0,0%	5,8%	7,0%	6,4%	2,4%	4,5%	8,4%	10,0%	0,0%	5,2%	6,5%	5,9%	6,1%	0,0%	4,9%	0,0%	6,3%	0,0%	34,8%	0,0%	22,1%
Financial Performance	**P3**	6,9%	2,8%	0,0%	3,3%	3,4%	5,5%	2,5%	1,7%	4,7%	8,1%	3,5%	0,0%	4,4%	5,9%	4,0%	0,0%	5,1%	8,7%	6,2%	10,8%	9,7%	44,5%	0,0%
Operational Performance	**P4**	4,6%	3,0%	0,0%	6,9%	7,9%	6,5%	2,0%	2,2%	0,0%	9,5%	2,4%	9,7%	0,0%	5,7%	5,3%	33,4%	8,8%	19,4%	10,9%	0,0%	0,0%	0,0%	0,0%
Managerial Performance	**P5**	2,6%	7,9%	0,0%	0,0%	0,0%	0,0%	5,8%	8,9%	13,9%	15,%	8,1%	0,0%	8,0%	0,0%	8,6%	0,0%	9,0%	0,0%	0,0%	0,0%	0,0%	0,0%	24,0%
Technology and Innovation	**T1**	0,0%	0,0%	0,0%	0,0%	0,0%	8,0%	9,0%	13%	0,0%	0,0%	44,4%	13,3%	13,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Draft	**T2**	0,0%	0,0%	0,0%	6,3%	0,0%	3,7%	3,2%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	1,9%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Port Infrastructure and Superstructure	**T3**	0,0%	0,0%	0,0%	9,8%	22,4%	11,9%	9,8%	10,2%	0,0%	0,0%	0,0%	20,1%	20,1%	0,0%	12,4%	13,2%	0,0%	19,2%	0,0%	0,0%	0,0%	0,0%	0,0%
Port Capacity	**T4**	0,0%	0,0%	0,0%	15,0%	21%	9,8%	10,1%	15,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	6,6%	19,0%	21,9%	0,0%	27,2%	0,0%	0,0%	0,0%	0,0%
Number and Quality of Equipment	**T5**	0,0%	0,0%	0,0%	6,7%	0,0%	9,8%	6,3%	14,5%	0,0%	0,0%	0,0%	14,0%	14,0%	0,0%	6,2%	0,0%	10,3%	8,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Port Service Quality	**U1**	3,6%	3,0%	0,0%	0,0%	3,7%	3,2%	2,4%	3,7%	3,1%	6,9%	2,6%	0,0%	0,0%	3,4%	4,3%	0,0%	7,1%	6,7%	6,4%	0,0%	8,1%	5,4%	0,0%
Customer Relationship Management	**U2**	0,0%	0,0%	0,0%	0,0%	2,5%	3,3%	1,9%	2,3%	3,0%	4,8%	1,7%	0,0%	0,0%	3,1%	2,9%	0,0%	0,0%	0,0%	0,0%	9,4%	0,0%	11,0%	0,0%
Customer Value	**U3**	6,2%	3,6%	22,9%	0,0%	0,0%	0,0%	2,5%	3,2%	5,8%	6,1%	2,7%	0,0%	0,0%	4,0%	0,0%	0,0%	0,0%	0,0%	0,0%	17,2%	12,8%	0,0%	0,0%
Recognition	**U4**	2,4%	5,5%	16,7%	7,5%	2,3%	2,0%	0,0%	0,0%	2,8%	3,9%	1,8%	0,0%	0,0%	1,9%	1,8%	10,9%	3,7%	2,4%	2,7%	5,3%	0,0%	3,4%	0,0%