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TOTAL QUALITY MANAGEMENT PRACTICES IN HEALTH SERVICES

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ABSTRACT

Purpose- The goal of this study is to emphasize the importance of total quality management practices in health services in order to ensure patient satisfaction and to create customer loyalty.
Methodology- The methodology of this study is a thorough literature review of Total Quality Management in health services.
Findings- Health services are a vital service area that does not accept mistakes and is directly related to human life. Due to the fact that its area of interest is human health and human life, quality in health services appears as a necessity rather than a choice. It is possible for societies to live in health and well-being if the individuals that make up that society are healthy. Protection of individual health and investments and sanctions aimed at protecting this are the most fundamental steps in the health of the society. The implementation of patient rights within the health system has brought the concept of "Quality Health Care" to our agenda. Quality in health care; it includes the diagnosis and treatment services to be in accordance with modern medical science, scientific standards and norms, and the services provided to meet patient expectations.
Conclusion- The fact that health services are directly related to human life, the fact that mistakes to be made will cost expensive, the obligation to provide services with zero margin of error have made it obligatory to provide quality health services in health services and therefore in health institutions.

Keywords: Quality, total quality management, health, health services, patient rights.
JEL Codes: I10, L15, I19

1. INTRODUCTION

Since the field of interest in health sector is human health and human life, quality in healthcare services is an obligation rather than a preference. Service quality is the capability of an enterprise to meet or exceed the expectations and needs of customers. In other words it is to provide the best service to meet customer expectations (Feigenbaum, 1991). Today the definition of quality highlights customer viewpoint and meeting the constantly changing demands and needs of customers is evaluated as quality. Increasing the service quality, providing customer satisfaction and desires of creating loyal customers have directed enterprises to increase the quality with all their shareholders. Studies of increasing the service quality have brought forward the concept of Total Quality Management (TQM) (Andani et al., 2021; Lim et al., 2022).

Enterprises which not only concentrate on products but also aim to operate all production processes in a reliable, productive and effective way always try to catch the better through compliance with specifications and meeting customer demands. In order to provide a quality service it is necessary to meet the service expectations of customers and even provide service beyond these expectations. Most enterprises operating in the area of service sector try to beat out their rivals and catch an advantage in competition with a strategy of producing and distributing service of different and requested quality. However, what is more important is to provide a service meeting the quality expectations of consumers.

Consumers will compare the service provided to them and the service they expect. If the service provided is beyond their expectations, they will be more satisfied and continue to receive that service. This will provide loyal customer which is the greatest expectation of enterprises (Komurcu et al., 2014). TQM is a systematic approach to the sense of perfectness. There is no last stop on the road taken (Alumran et al., 2021). It constantly requires renewing and improving the self and learning.

It is very important to adopt total quality management in order to provide service with zero harm in health institutions. So this study aims to reveal the effects of the total quality management in health sector.

In this context, firstly, the history of quality, evaluation and measurement of quality in health services are mentioned in the study. Besides the concept of total quality management, its advantages for the individual and the institution, the reasons for failure due to malpractice and total quality management practices in health are explained. In the conclusion part, when the total quality management is applied successfully in the health sector, the customer expectations and the importance of providing service with zero harm are explained.

2. LITERATURE REVIEW

2.1. History of Quality

The concept of quality emerged from the goal of minimilizing the mistakes and reaching the perfect as a result of the mistakes made by people and systems. It was derived from the Latin word "Qualitas". Applications related to quality are not new. They date back to the Hammurabi Laws in 2150, B.C. (Sheingold et al., 2014; Kuatova, 2021). Additionally in modern terms, the concept of quality appeared in the post-war Japan in the 1950s. With a principle called 'Kaizen' which means "better" in Japanese, the TQM applications stepped in. TQM is compared to an endless journey (Azzolini et al., 2018). The European Quality Organization (EQO) defines the concept of quality as "compliance of goods or services for the consumer's demands" (Psomas and Antony, 2017). The Turkish Standards Institute (TSI) defines quality as "sum of properties based on the capability of a product or service to meet specified or possible needs". The International Standardization Organization (ISO) defines quality as "sum of properties based on the capability of a product or service to meet specified or possible needs" (Muluk, 2000).

In quality studies while "product quality" was in the foreground at the beginning (from the 1950s until the 1980s), service has begun to come into prominence since the 1980s (Çiçek et al., 2006). The concept of quality is perceived as a whole of studies which not only concentrate on the product, but also aim to operate all production processes in a reliable, productive and effective way (Elsaleh, 2018). This philosophy is based on customer satisfaction. It is because quality studies make it possible to gain a competition advantage by both increasing the customer loyalty and minimizing the customer's sensitivity to low cost. Principle condition to make this possible is continuous improvement (Prajogo, and Amrik, 2006).

In general terms it is possible to summarize the concept of quality as "compliance with specifications and meeting customer demands". The concept of quality has many definitions. Juran defines it as "suitability for use" and Crosby defines it as "compliance with conditions" (Efil, 2003). The common ground in all definitions related to this concept is that quality is to be suitable for customer expectations and needs. The concept of quality which is usually perceived as "the best and the truest" grounds on offering goods or services to customers in the most productive, useful and ergonomic way. Quality refers to suitability for use, compliance with conditions, state of meeting the needs, compliance with requested conditions timely and customer satisfaction. No matter how it is defined, quality is specified according to how the customer perceives the goods and services offered to them.

2.2. Healthcare Services

Healthcare services comprise all services offered to individuals or society to protect from diseases and preserve and develop well being. When the concepts of health and disease are handled with mental and socialness dimensions, the extent of healthcare services will undoubtedly expand. Considering from this point of view it is possible to define healthcare services as all kinds of services offered to individuals or society to fully reveal physical, mental and social well being (Çavmak and Çavmak, 2017; Sriatmi et al., 2020). The most general definition of the concept of health which is accepted worldwide is to have physical, mental and social well being. Within the frame of this definition healthcare services comprise preventive healthcare services, therapeutic healthcare services and rehabilitation services (Bitton et al., 2019; Ghebreyesus, 2020).

2.3. Quality in Healthcare Services

Healthcare services are a service area which is of vital importance, will not accept any fault and directly concerns human life. In healthcare services which have a dynamic structure, human behaviors and qualifications matter. Reliability in human is of prime importance. Healthcare services have a face-to-face relationship and the feedback received from the patient may create differences in treatment (Endeshaw, 2021; Lagrosen and Lagrosen, 2022). The synthesist approach developed by Vincent Omachonu stresses the quality of healthcare services as technical quality and treatment art. Here the technical aspect of quality refers to "compliance of diagnosis and treatment services with modern medical science and scientific standards and norms", while the artistic aspect refers to "capability of services provided to meet patient needs" (Omachonu, 2018; Hussein et al., 2021).

2.4. Evaluation of Quality in Healthcare Services

As numerous variables determine customer satisfaction, it is very difficult to measure the service quality. For consumers it is harder to evaluate service quality than evaluating the quality of goods. Perception of service quality arises from a comparison between consumer expectations and the actual service performance. Evaluation of quality is not only based on the outcome of a service but also comprises evaluation of the process of providing service. Therefore it is important to measure and evaluate the quality of the service provided in healthcare services and specify new road maps in the light of the data acquired (Rajiani et al., 2018).

A variety of methods are used in evaluating the technical quality of the healthcare service provided. Among these methods the most commonly used one is the Structure-Process-Outcome approach developed by Donebedian (Donabedian, 1996). The structure factor here includes the structure of financial resources of health enterprise, human resources of health enterprise and organizational structure of health enterprise. The process factor is aimed at presentation and contains activities conducted when providing healthcare service. In health enterprise the process factor contains activities such as examination of patients, identification of diseases and development and implementation of appropriate treatment plans. In evaluation of the technical quality of healthcare service the third element of the approach developed by Donebedian is the outcome factor. The outcome factor refers to the impact of the healthcare service provided on the health status of patients and society. If the services provided have made desirable changes in the patient's health condition, it is possible to state that the service outcome is good. In the healthcare service provided the quality is specified based on variables such as effectiveness, efficiency, productivity, optimality, acceptability, legality and equality (Zeithaml et al., 2020).

2.5. Measuring the Quality in Healthcare Services

The literature has many definitions of models concerning the measurement of service quality. However, the "SERVQUAL SCALE" which was developed by Zeithaml, Parasuraman and Berry and can measure five different dimensions of service quality comes into prominence among other scales developed to measure service quality. This measurement method has sections comprising 22 items. The measurement method primarily defines the expectations of customers from quality service and then tries to measure the quality of the enterprise to which service is provided for the same quality indicators. Differences between the expectations in the first section and the perceptions in the second section are specified as service quality. Questions are evaluated in five dimensions among themselves. Service quality is a measure of difference between desires or expectations and perceptions. A study conducted by Parasuraman et al. indicated that service quality has five dimensions. They are; physical properties, reliability, eagerness, trust and empathy. It is crucial for an enterprise to place themselves in the customers' position, show personal interest to them and give them confidence (Parasuraman et al., 1988).

There are five differences (spaces) indicating the presence of service quality problems. These differences are differences between the customer expectations and perceptions and the direction and size of differences define service quality.

Difference 1: Difference between the customer expectations and the management's perception of customer expectations,

Difference 2: Difference between the management's perception of customer expectations and the service quality standards,

Difference 3: Difference between the service quality standards and the service delivery,

Difference 4: Difference between the service delivery and the external environment and communications,

Difference 5: Difference between the expected service and the perceived service (emerges based on the first four dimensions).

The service quality score is tried to be determined by calculating the difference between the expected and perceived service quality ratio in the survey (Parasuraman et al., 1988).). It is possible to explain the correlation between the expected service and the perceived service as follows:

1. If the perceived service is lower than the expected service; the perceived quality is not satisfactory and will not satisfy the customer. 2. If the expected service is equal to the perceived service; the perceived quality is satisfactory and will satisfy the customer. 3. If the perceived service is better than the expected service; the perceived quality is satisfactory and the customer will desire to continue to receive the service (Filiz, 2013).

Zeithaml, Berry and Parasuraman offered many applications for the Servqual Scale. However, the most important function of the scale is to follow service quality trends with periodic customer surveys. Also it can be used in marketing studies in order to compare the service of an enterprise with the service of a rival firm and define the dimensions of good or inadequate service quality.

2.6. Total Quality Management

Total Quality Management is a modern management style of customer satisfaction for increasing the quality, developing the competition power and lowering the costs. Propounded by Feigenbaum, TQM aims to provide the proper production or service on the first try and repeat this every time (Feigenbaum, 1991). For that purpose it grounds on providing the effectiveness of an enterprise as a whole, enabling it to have flexibility and increasing the competition power. Feigenbaum defines TQM as an effective system combining the quality development, quality protection and quality enhancement efforts of different groups in an organization to provide production and service at the most economic level based on customer/patient satisfaction.

The TQM system grounds on directing all units contributing to production and ensuring customer satisfaction in line with customer expectations (Akalın et al., 2002). TQM is a management approach which adopts a customer-oriented sense of quality, aims for continuous education and development under the leadership of top management. TQM focuses on supervision to prevent possible problems, attaches importance to the process instead of intra-organizational fears and sense of competition, adopts a horizontal organization instead of vertical hierarchical stages. Main objective of Total Quality Management is the satisfaction of those who serve and receive service.

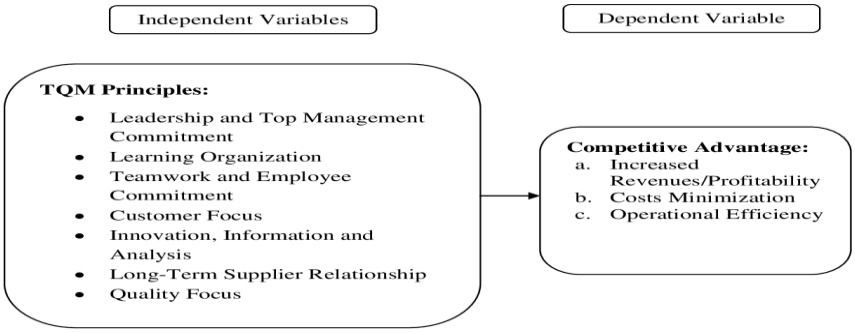
Total Quality Management is associated with a variety of concepts such as vision, mission, goals and zero error. Vision refers to the place and condition to reach and the direction to progress in time, while mission refers to the existence purpose of the organization. The PDCA (The Plan-Do-Check-Act) cycle also konw as the Deming Cycle, is a popular TQM problem-solving tool. TQM studies are maintained via process enhancements and this cycle continues endlessly (Gökmen, 2001).

2.7. Fundamental Principles of Total Quality Management

Fundamental principles of Total Quality Management such as leadership in management, customer orientation, everyone's participation and communication, continuous enhancement (Kaizen), management with goals and data, process management, prevention-oriented approaches and continous education and organization also form the basis of the philosophy of quality management (Rouf et al., 2017). TQM gives place to current issues like participation, continuous development and importance of human resources. Conceptual Framework is shown in Figure 2. TQM not only tries to zero out negative quality elements, but also aims to constantly enhance positive quality properties. By this way it foregrounds lowering the costs, providing savings and offering quality service to customers at affordable price. One of the best indicators of the development level of a country is the quality of goods and services. Quality contains many different elements. Quality is customer satisfaction, productivity, flexibility and being effective. It refers to complying with a process, an investment and a program and doing things in time. In other words quality is a systematic approach to the sense of perfectness. For TQM, there is no last stop on the road taken. It requires to constantly renew and improve the self and learn (Shatrov et al., 2021).

It is possible to collect methods used in reaching total quality management under different topics such as quality circles, benchmarking, total quality control, quality assurance system, full participation, organizational culture, data and statistical process control (Lim et al., 2018; Feibert et al., 2019).

Figure 1: Conceptual Framework



Source: Hilmy, 2016.

2.8. Advantages of Total Quality Management

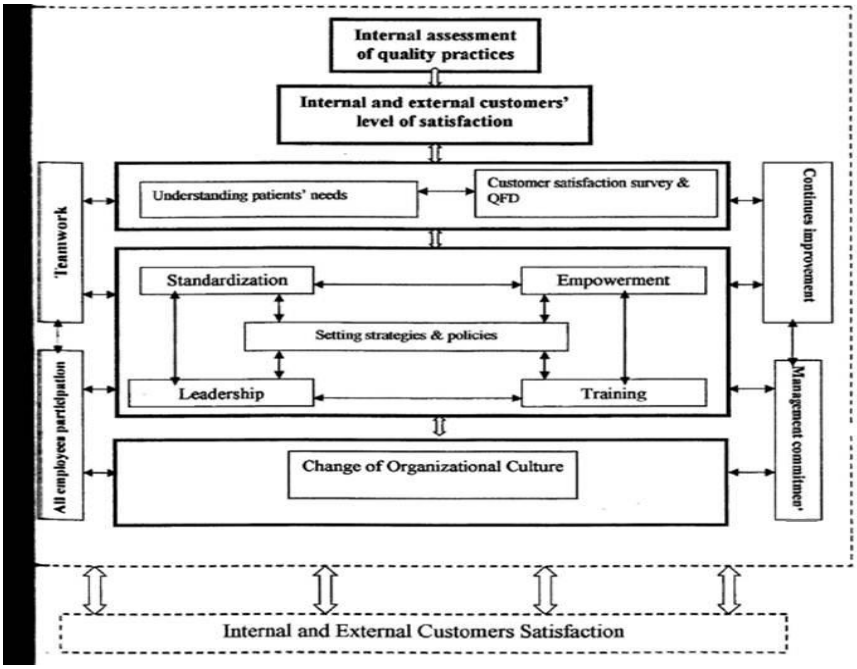
As long as conditions required for the success of total quality management are fully satisfied, the studies will provide positive outcomes. Advantages of a successfully implemented TQM model for the organization are both countless and extensive (Feibert et al., 2019). TQM increase in competitiveness level, profitability level and market share, development of team work and collaboration, decrease in customer complaints, increase in customer loyalty. Besides it provides continuous

enhancement of all processes, increase in employee motivation, increase in labor productivity, decrease in costs, decrease in production preparation periods, decrease in maintenance and repair expenses and decrease in outages, scraps, reprocessing-maintenance activities during production (Yatkın, 2014; Petrick and Furr, 2017). TQM aims to create a new organizational culture, include all employees in the organization in the system.

2.9. Expectations from the Total Quality Management Application Project

As a result of TQM applications it is expected to provide satisfaction to those who receive service, be reliable and up-to-date in service delivery, create an environment of trust, make zero-error production by constantly reviewing the service production processes. Also it is expected to create an appropriate organizational culture, provide a basis for the philosophy of learning individual and learning organization to settle in the organization, solve problems on site via the quality board, quality development team and quality circles of every unit (Lebcir and Sideras, 2021). Total Quality Management Implementation is shown in Figure 2.

Figure 2: Total Quality Management Implemetation—Framework Model



Source: Balasubramanian, 2016.

TQM facilitates increasing job satisfaction, motivating to make decisions, have authorization and responsibility, constantly developing the knowledge and skills of employees, encouraging employees to see each other as individuals benefiting from service delivery and developing internal customer consciousness. It is expected that creating an understanding based on collaboration and enabling the personnel to see their deficiencies and improve themselves and promoting the personnel according to more objective criteria as a result of these values. (Lebcir and Sideras, 2021).

2.10. Reasons of Failure in Total Quality Management

Enterprises intending to establish a total quality system may sometimes fail to properly provide the mutual interaction and coordination of interorganizational units and face difficulties in achieving a specified goal on the road taken. Main problems in such enterprises are that it is usually ignored that everyone in the organization has work to do in routine (Petrick and Furr, 2017). Also other failures encountered in creating TQM are can be explained as follows: that employees do not adequately adopt the TQM process, TQM is tried to be created with the help of an advisor and this advisor is not informed of the dynamics of firms. Besides it importance is attached to quality but the total quality is not stressed adequately, top management leadership is inadequate and organizations embark on quality enhancement without a clearly specified strategy. Another reason for the failure of TQM systems is that the top management cannot establish adequate communication with employees and convey the organization which is tried to be created to employees adequately. Another reason is that education and innovation investments which actually are the first thing to be done cannot be made in time due to attaching importance to short-term profitability.

A quality service is necessary in every area. However, it is a must for the healthcare field (Kömürcü et al., 2014). It is because errors will be irreversible when it comes to human health. In this respect the effort of healthcare enterprises to catch quality

in service is an obligation rather than a need (Gill and Gill, 2005). In the delivery of healthcare services the concept of quality is not new. We can assume that the first studies on the concept of quality in healthcare services began in the 19th century. Florence Nightingale conducted studies on enhancement of hospital services in England in the 19th century (Talib et al., 2011). The system that Codman, one of the leading names in quality research, developed by examining both the process and outcomes of clinical care services provided by doctors and hospitals has formed a basis for minimum hospital standards developed by the ACS (American College of Surgeons). The Joint Commission for Accreditation of Healthcare (JCAHO) which is an important non-profit organization concerning quality was established in the USA in 1952. In health sector the Total Quality Management (TQM) applications have begun since the 1980s. In our country the concept of quality in healthcare services has begun to be handled at the national level with quality studies conducted by the Ministry of Health in healthcare organizations since 2005 (Lebcir and Sideras, 2021). The level of healthcare services is accepted to be an indicator of the development level of countries. Quality applications performed in health sector focus on patient satisfaction, continuous development, team work, process management, systematization, organizational culture, organizational structure and finally supportive leadership (Salaheldin et al., 2015). Also the studies conducted have demonstrated that creativity and innovation have a positive and significant impact on achieving total quality applications (Prakoso et al., 2017). If we precisely know what "internal customer and external customer" deduce and expect from quality in the philosophy of TQM, it is believed that the quality studies will be more effective (Rajiani et al., 2018). Comparative literature review of TQM is shown in Table 1.

Table 1: Comparative Literature Review of TQM

Authors	Year	Study Design	Study respondents	TQM predictors	Findings
El-Tohamy & AlRaoush	2015	Cross-sectional design	1290 healthcare professionals in accredited governmental hospitals in Jordan	Leadership commitment to quality, customer focus, continuous improvement, teamwork, employee involvement, education and training	A significant impact of all TQM principles on the overall hospital effectiveness.
Kumar et al.	2016	Experimental design	275 healthcare professionals in Pakistan hospitals	Training	Attitudes of healthcare professionals on waste management have increased significantly with training (TQM).
Nithya	2018	Empirical Study	1012 healthcare administrators in accredited governmental hospitals in India	Supplier management, leadership, strategic quality planning, information and analysis and also knowledge and education	Top management quality, customer focus, knowledge and training, continuous process improvement, employee involvement, process management, quality systems and culture, teamwork and communication are important on the overall hospitals.
Wang et al.	2019	Cross-sectional design	492 nurses in a Taiwan hospital	Training	Implementing TQM improves nurses' attitudes towards the patient-safety culture.
Babu&Thomas	2020	Cross-sectional design	265 health-care professionals (administrators, managers and heads of departments) in Kerala hospital	TQM practices measure and leadership	Leadership is acting as the key driver in implementing quality systems in the hospital, leadership and TQM practices considered in this study.
Alshourah	2021	Cross-sectional design	140 health-care professionals in Jordanian Hospitals	Leadership commitment and Support to Quality, strategic quality planning, information and data, training and participation, customer focus	The impact of hospital managers on TQM studies.
Lee & Lee	2022	Cross-sectional design	261 employees at general hospitals in South Korea.	Leadership, the role of the quality department, employee participation, education and training, and process and operational procedure	Role of topmanagement is essential for the successful implementation ofhealthcare activities (motivating employees for their active participation in the program, education and training and progress at the organization level)

In medical establishments the quality of healthcare services is to be specified based on basic characteristics of the healthcare service provided such as effectiveness, efficiency, productivity, optimality, acceptability, legality, equality, continuity, timely service delivery, participation and accessibility. The criteria of service quality in health include a number of elements such as nurse and doctor service, care quality perception, medical personnel's behavior, accessibility to polyclinic units, total time spent throughout the treatment, food service, noise in the hospital, room temperature, cleaning and parking lot in the hospital. Principles that customers/patients use when measuring the quality of the service they receive are defined as reliability, responsiveness, confidence, empathy, tangibility, ability, access, kindness, trust, communication and understanding and knowing the customer (Amelia et al., 2019). The determinant of quality is about "what" the services are and "how" they are offered. In healthcare services the determinant of service quality is mainly the human factor. Here the dimension of the communication established by doctors, nurses and other personnel providing support services (such as patient admission and registration) with patients plays a key role in the service quality perception of patients. Also the knowledge, skills and attitudes of the healthcare personnel having a role in offering healthcare service are noteworthy in this perception (Martin et al, 2021).

3. CONCLUSION

In medical establishments customer/patient satisfaction is crucial. A variety of factors such as humanitarian reasons, economic reasons and marketing strategies are effective on patient satisfaction. Apart from these doctor-patient relationship, doctor's behavior, personnel-patient interaction, patient care and quality, clear informing of patients and relatives by doctors, physical conditions of the space providing healthcare service, technology used, trust and the amount of the fee paid for the healthcare services received affect patient satisfaction. It is known that patients who are satisfied will display more positive behaviors in the treatment process. "Patient Loyalty" is a condition in which patients reuse or prefer the medical establishment when they need it. When there is patient loyalty, economic reasons rank second (Alumran et al., 2021). In healthcare services factors such as past experiences and expectations of individuals, attitudes and behaviors of those providing service affect quality and the compound of the perceived quality and technical quality determines the general quality level (high, low). In addition the perception and evaluation of patients concerning service quality play a role not only in their choices but also in the choices of other people. The studies have found that the recommendations of friends and relatives are gradually becoming more effective on the hospital choice of patients.

TQM grounds on respecting humans. Considering that the intended population in healthcare services is humans and there is zero tolerance for error, respecting humans apparently comes into prominence. In healthcare services it is crucial for employees to take part in TQM studies. It is necessary to meet expectations such as providing physical working conditions and fees to increase the effectiveness and success of healthcare professionals, creating an adequate environment of support, and progress in the profession, having clear job definitions, having distinct authorities and responsibilities.

In the healthcare field early diagnosis, early treatment, correct diagnosis, correct treatment and rehabilitation services, as well as physical spaces corresponding to patient expectations and patient and employee satisfaction have become essential applications for enterprises. As a consequence enterprises providing employee happiness and customer/patient satisfaction will come into prominence in the service sector which has an almost limitless competition environment.

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CUSTOMS BROKERAGE COMPANY SELECTION PROBLEM WITH HYBRID METHOD

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ABSTRACT

Purpose- Customs are the main transit points in cross-border trade activities. Customs logistics activities are carried out by authorized customs brokerage companies (CBC). Export/import companies that execute customs clearance with the right CBC partners gain competitive advantage. Therefore, selecting the right CBC is an important decision-making problem. In this research, CBC selection problem is handled with fuzzy-based multi criteria decision-making (MCDM) methods.

Methodology- The research application covers the CBC selection process of an export firm. The criteria for the problem are obtained as a result of the literature review. The opinions of the decision makers are also taken. Seven criteria have been identified. These criteria are cost/price, service quality, information system and technology, flexibility, relationship, professionalism, reputation. Fuzzy-based stepwise weight assessment ratio analysis (F-SWARA) method is used for criterion weighting. In order of alternatives, ranking of alternatives through functional mapping of criterion sub-intervals into single interval (F-RAFSI) method is applied. Four decision makers are used to compare the criteria.

Findings- Four CBC alternative rankings based on criteria are made. According to the research findings, the highest criterion weight is determined as service quality. The first alternative is chosen as the best alternative.

Conclusion- CBC alternative sequencing has been made for the export company by applying fuzzy-based MCDM methods. Thus, the applicability of MCDM methods is supported in CBC company selection. In addition, the CBC selection criteria are determined, and the CBC selection problem are shed light on. Suggestions are also made to export companies and researchers based on the results of the research.

Keywords: Customs brokerage companies, customs logistics, MCDM, F-SWARA, F-RAFSI
JEL Codes: C02, C44, D81,

1. INTRODUCTION

Customs, which are the transit points of international trade, have a vital importance in the realization of import and export activities among countries. The contribution of customs to the country's economy in terms of logistics supports the customs performance to be among the country's logistics performance indicators (Martí et al, 2014). The complex structure of customs logistics necessitates the establishment of customs facilities in the execution and control of border trade activities. In addition, the standards to be applied in customs clearance activities are defined by legal regulations (Pasichnyk et al., 2017). These regulations specify both the rights and obligations of citizens (Edirisinghe and Jayathilake, 2013). Fulfilling the responsibilities arising from the legislation and different customs regime applications require expertise in customs transactions (Luzhanska et al., 2019). This need for expertise is provided by customs brokers. The authority to represent import and export companies in customs procedures has been given to customs brokers by customs authorities (Lileikis and Staniūtė, 2020). Documents of export, import and transit goods of companies are prepared by customs brokers. Taking samples of goods and issuing origin documents are also handled by customs brokers.

Import and export companies carry out logistics activities in the form of outsourcing to concentrate on basic trade activities. Logistics service providers contribute to the country's economy indirectly by increasing the performance of trade activities. Customs clearance activities, which are among the logistics activities, are also carried out by logistics service providers. In the

literature, logistics service providers are defined as "third party logistics provider (3PL firms)" (Zacharia et al., 2011). The customs brokerage companies (CBC), which have customs brokers and carry out the logistics services of the companies, are among the 3PL companies. The main services provided by CBC to export and import companies are: (i) consultation, (ii) issuance of customs pass documents, (iii) issuance of customs declarations, (iv) issuance of documents related to customs cleared goods, (v) to represent import and export companies in customs processes, (vi) professional for customs and tariff legislation is to serve (Llanto et al., 2013). The performance of these services directly affects the customs clearance performance. For this reason, it is necessary to carry out customs procedures with the right CBC partner. The main purpose of this research is to determine the criteria for the CBC selection problem and to apply the CBC selection based on these criteria.

It is known in the literature that multi criteria decision making (MCDM) methods are frequently applied to solve the 3PL firm selection problem. In this study, it is aimed to solve the CBC selection problem with fuzzy-based MCDM methods. In this direction, in the second part of the research, the criteria are determined by literature review. In addition, MCDM methods used in 3PL firm selection are observed. The nomenclature of MCDM methods is presented in Table 1. Afterwards, it is decided to apply fuzzy Stepwise Weight Assessment Ratio Analysis (F-SWARA) method to determine the criterion weights and to apply fuzzy ranking of alternatives through functional mapping of criterion sub-intervals into a single interval (F-RAFSI) method for ranking the alternatives. F-SWARA and F-RAFSI steps are also explained. In the third part, the application is made. In the last section, results and conclusion are presented.

Table 1: Nomenclature

Abbreviations	Full spelling of abbreviations
AHP	Analytic hierarchy process
F-AHP	Fuzzy analytic hierarchy process
EDAS	The evaluation based on distance from average solution
EAMR	Evaluation by an area-based method of ranking
SWARA	Stepwise Weight Assessment Ratio Analysis
WASPAS	The weighted aggregated sum product assessment
TOPSIS	Technique for Order Preference by Similarity to Ideal Solution
IVFRN-FARE-MABAC	Interval-valued fuzzy-rough numbers-based factor relationship and multi-attributive border approximation area comparison
HF-CoCoSo	Hesitant fuzzy based a combined compromise solution
IRN-WASPAS	Interval rough number based the weighted aggregated sum product assessment
IRN-MABAC	Interval rough number based multi-attributive border approximation area comparison
IRN-BWM	Interval rough number based best and wort method
GP	Goal programing
IV-IF-TOPSIS	Interval-valued based Intuitionistic fuzzy technique for Order Preference by Similarity to Ideal Solution
D-AHP	D numbers based analytic hierarchy process
HMCDM	Hybrid multi criteria decision making
Z-MABAC	Z numbers based multi-attributive border approximation area comparison
ARAS	The additive ratio assessment
CRITIC	Criteria importance through inter- criteria correlation
DEMATEL	Decision making trial and evaluation laboratory
COPRAS	The complex proportional assessment
q-ROF CODAS	q-rung orthopair fuzzy set combinative distance-based assessment
F-SWARA	Fuzzy stepwise weight assessment ratio analysis
F-RAFSI	Fuzzy ranking of alternatives through functional mapping of criterion sub-intervals into a single interval

2. METHODOLOGY

The research is handled as a fuzzy-based MCDM problem. For this reason, it is necessary to determine the criteria used in the research and to explain the method steps. In this part, the criteria selection process is explained first. Then, fuzzy-based MCDM method steps are presented. Afterwards, the application steps of the problem are explained in the application part.

2.1. Criteria Selection

Customs processes of export/import companies are carried out with the help of customs brokers. The success of export/import services is parallel to the success of customs clearance processes. The completeness of the documents requested by the countries increases the success of customs clearance. Thus, it is necessary to develop long-term partnerships by choosing the CBC that

follow the customs clearance procedures of the export/import companies. This selection process is basically a decision problem. Decision-making problems are solved based on criteria. In the literature review, no research was found specifically addressing the CBC selection problem. At this point, the research for the determination of the research criteria is carried out by focusing on the criteria used in the selection of 3PL companies. As a result of the literature review, it is aimed to determine the most used criteria in the 3PL selection problem. The suitability of the CBC selection criteria is determined as a result of the interviews with the decision makers.

Ozcan and Ahıskalı (2020) used Goal Programing, AHP and TOPSIS methods by using seven criteria for 3PL selection. Akpınar (2021) applied SWARA and WASPAS methods in 3PL selection. Twelve criteria were used in the study. Jovčić and Průša (2021) applied Entropy, ARAS, and CRITIC methods. Jovcic et al. (2019a) preferred F-AHP and TOPSIS methods using 5 criteria in the 3PL selection problem. Jovcic et al. (2019b) used the F-AHP method by using the fuzzy logic approach in 3PL firm selection. Ten criteria were used in the study. The cost criterion was determined as the best criterion. Yuan et al. (2022) used DEMATEL and COPRAS methods to solve the problem for 3PL selection under uncertainty. Four criteria were used in the study. The highest criterion weight was determined as the cost criterion. Liu et al. (2020) investigated the logistics service provider selection problem using the hybrid MCDM method. In the research, five alternative 3PL companies were ranked by using five criteria. Roy et al. (2019) applied IVFRN-FARE-MABAC methods in 3PL selection based on sustainable perspective. The criteria were handled in three basic dimensions and 15 criteria were used. As a result of the research, six alternative 3PL companies were ranked. Karbassi Yazdi et al. (2018) discussed the problem of choosing the best 3PL company in the automobile industry. They determined eleven criteria by using the Delphi method. Nine alternative 3PL firm rankings were made using the EAMR method. Kahraman et al. (2020) used the IV-IF-TOPSIS method. Selection was made based on five criteria. Pinar et al. Boran (2022) applied the q-ROF CODAS method for retail companies. Three decision makers, seven criteria and six alternative companies were used in the research. Wen et al. (2019) applied the CoCoSo technique using hesitant fuzzy numbers. Eight criteria were used in the selection of 3PL in the study. Flexibility criterion weight was calculated as the highest. Ecer (2018) discussed the 3PL firm selection problem for the marble company. Fuzzy AHP and EDAS methods were used in the research. Using eleven criteria, the best 3PL firm was determined among the four alternatives. Bulgurcu and Nakiboğlu (2018) applied the 3PL selection problem in the cement industry. Five basic criteria and twenty-nine sub-criteria were used. Criterion weights were determined using the F-AHP technique. The highest sub-criteria weight was determined as Price of the service. Ejem et al. (2021) used SWARA and TOPSIS techniques in the 3PL selection problem in Nigeria. Five criteria were used in the research. The highest criterion weight is the Service level criterion. In addition, the best logistics service provider company was chosen among six alternatives. Pamucar et al. (2019) applied WASPAS, MABAC and BWM methods using interval rough numbers. Five main criteria and seventeen sub-criteria were used in the study. Dadashpour and Bozorgi-Amiri (2020) used the D-AHP method in the selection of sustainable 3PL companies. Five main criteria and fourteen sub-criteria were used in the study. Bianchini (2018) applied the AHP and TOPSIS methods as a hybrid in the 3PL providers selection problem. In the research, the best logistics service provider company was selected by using six criteria. The literature review for the 3PL firm selection problem is presented in Table 2.

Table 2: Literature Review on the 3PL Firm Selection Problem

Authors	Method	Criteria
Bulgurcu and Nakiboğlu (2018)	F-AHP	Cost, Service/operation quality, Competencies, General attributes of firm, Relational factors (5 main criteria and 29 sub-criteria)
Ecer (2018)	Fuzzy AHP, EDAS	Cost, Relationship, Services, Quality, Information System, Flexibility, Delivery, Professionalism, Financial Position, Location, Reputation (11 criteria)
Karbassi Yazdi et al. (2018)	EAMR	Information technology, Human resource, Inventory, Service, Communication, Cost, Time, Quality, Location, Reputation, Professionalism (11 criteria)
Sremac et al. (2018)	SWARA, WASPAS	Vehicle fleet condition, financial stability, Professionalization of drivers, Cost of transport, Application of risk mitigation measures, Application of IT in transport organization, Compensation for damages caused during transportation, Reliability (8 criteria)
Bianchini (2018)	AHP, TOPSIS	cost of service, service level, level of professionalism, geographical location, specific references in the same sector, innovation capacity and collaboration with the customer (6 criteria)
Jovčić et al. (2019a)	F-AHP, TOPSIS	Price, Delivery, Safety, Technology Level, Social Responsibility (5 criteria)
Roy et al. (2019)	IVFRN-FARE-MABAC	Economic, Environmental, Social (3 main criteria and 15 sub-criteria)

Jovčić et al. (2019b)	F-AHP	Total cost of logistics outsourcing, Delivery, Flexibility, Professionalism, Connection with other transport modes, social responsibility, Reputation, Information and equipment system, Quality (10 criteria)
Wen et al. (2019)	HF-CoCoSo	Diversity of services available, Ability to provide value-added services, Information accessibility, Flexibility, Financial stability, Response time, Incompatibility, Willingness (8 criteria)
Pamucar et al. (2019)	IRN-WASPAS, IRN-MABAC, IRN-BWM	Services, Logistics cost, Information system, Intangible, Geographical location (5 main criteria and 17 sub-criteria)
Ozcan and Ahıskalı (2020)	GP, AHP, TOPSIS	Speed of respond to offer request, Operational performance, Accessibility to authorized persons, Company image, Quality, Ease of shipment at competitive prices, long term relationship (7 criteria)
Kahraman et al. (2020)	IV-IF-TOPSIS	Delivery reliability, Quality, Operations standardization, Technology and communication, Cost (5 criteria)
Dadashpour and Bozorgi-Amiri (2020)	D-AHP	Economically, Environmental, Social, Technical, Reputation (5 main criteria and 14 sub-criteria)
Liu et al. (2020)	HMCDM	Total assets, Transport cost, On time rate, Customer satisfaction, Personalized service, Technology level (5 criteria)
Fan et al. (2020)	Z-MABAC	Service quality, logistics cost, operational capability, risk factor, development potential (5 criteria)
Ejem et al. (2021)	SWARA, TOPSIS	Cost, Service level, Financial Capability, Reputation, Long-term relationship (5 criteria)
Akpinar (2021)	SWARA, WASPAS	Price, Speed, Service diversity, Flexibility, Environmental sensitivity, Reliability, Information and communication technologies, Logistics equipment, financial strength, Closeness to the facility, Logistics experience, Reputation in the market (12 criteria)
Jovčić and Průša (2021)	Entropy, ARAS, CRITIC	Price, Delivery service, customer experience, Territorial coverage, Flexibility (5 criteria)
Yuan et al. (2022)	DEMATEL, COPRAS	the cost of logistics, transportation and distribution time, customer service level, storage level (4 criteria)
Pinar and Boran (2022)	q-ROF CODAS	Quality, Delivery, Cost, Financial situation, Customer relations, Reputation and position in the industry, Management (7 criteria)

The criteria used in the 3PL firm selection problem are examined and the criteria that are deemed appropriate to be used in the selection of customs broker firm are as follows: Cost/Price (C1), Service Quality (C2), Information system and technology (C3), Flexibility (C4), Relationship (C5), Professionalism (C6) and Reputation (C7). Table 3 includes other studies that used the criteria to be used in this study.

Table 3: Criteria Used in this Research

Criteria	**Research using criteria**
Cost/Price (C1)	Bulgurcu and Nakiboğlu (2018), Ecer (2018), Karbassi Yazdi et al. (2018), Sremac et al. (2018), Bianchini (2018), Jovčić et al. (2019b), Pamucar et al. (2019), Kahraman et al. (2020), Liu et al. (2020), Fan et al. (2020), Ejem et al. (2021), Yuan et al. (2022), Pinar and Boran (2022), Jovčić et al. (2019a), Ozcan and Ahıskalı (2020), Akpınar (2021), Jovčić and Průša (2021)
Service Quality (C2)	Bulgurcu and Nakiboğlu (2018), Ecer (2018), Karbassi Yazdi et al. (2018), Bianchini (2018), Wen et al. (2019), Pamucar et al. (2019), Liu et al. (2020), Fan et al. (2020), Ejem et al. (2021), Akpınar (2021), Jovčić and Průša (2021), Yuan et al. (2022), Jovčić et al. (2019b), Ozcan and Ahıskalı (2020), Kahraman et al. (2020), Pinar and Boran (2022)
Information system and technology (C3)	Ecer (2018), Karbassi Yazdi et al. (2018), Jovčić et al. (2019b), Wen et al. (2019), Pamucar et al. (2019), Akpınar (2021), Jovčić et al. (2019a), Kahraman et al. (2020), Dadashpour and Bozorgi-Amiri (2020), Liu et al. (2020)
Flexibility (C4)	Ecer (2018), Jovčić et al. (2019b), Wen et al. (2019), Akpınar (2021), Jovčić and Průša (2021)
Relationship (C5)	Bulgurcu and Nakiboğlu (2018), Ecer (2018), Sremac et al. (2018), Ozcan and Ahıskalı (2020), Kahraman et al. (2020), Ejem et al. (2021), Akpınar (2021), Pinar and Boran (2022), Karbassi Yazdi et al. (2018)

Professionalism (C6)	Ecer (2018), Karbassi Yazdi et al. (2018), Sremac et al. (2018), Bianchini (2018), Bianchini (2018), Akpınar (2021)
Reputation (C7)	Ecer (2018), Karbassi Yazdi et al. (2018), Jovčić et al. (2019b), Dadashpour and Bozorgi-Amiri (2020), Ejem et al. (2021), Akpınar (2021), Pinar and Boran (2022), Ozcan and Ahıskalı (2020)

2.2. Fuzzy The Stepwise Weight Assessment Ratio Analysis Method (F-SWARA)

The SWARA method was developed by Keršuliene et al. (2010). The most important feature of this method is that it sorts the criteria within itself according to the opinions of the decision makers. The F-SWARA method, on the other hand, was developed by Mavi et al. (2017) with the idea that decision makers could explain it more easily with linguistic expressions. This method consists of 6 steps. These steps are described in order (Mavi et al., 2017; Zarbakhshnia et al., 2018; Ansari et al., 2020; Mishra et al., 2020):

Step 1-1: The criteria are ranked according to their importance by the decision makers.

Step 1-2: The *(j+1)th* criterion among the listed criteria is compared with the *jth* criterion. This comparison is made according to Table 4. (l, m, u) values represent triangular fuzzy numbers.

Table 4: Linguistic Expressions and Triangular Fuzzy Number Values for Criterion Weighting (F-SWARA)

Symbol	Definition	Triangular Fuzzy Number Value $\tilde{s}_j$)		
		l	m	u
VL	Very low	0,00	0,00	0,10
L	Low	0,00	0,10	0,30
ML	Medium low	0,10	0,30	0,50
M	Medium	0,30	0,50	0,70
MH	Medium High	0,50	0,70	0,90
H	High	0,70	0,90	1,00
VH	Very High	0,90	1,00	1,00

Step 1-3: Eq. 1 calculates the coefficient $\tilde{k}_j$. And $\tilde{s}_j$ represents triangular fuzzy number values.

$$\tilde{k}_j = \begin{cases} 1, & j = 1 \\ \tilde{s}_j + 1, & j > 1 \end{cases} \quad (1)$$

Step 1-4: $\tilde{q}_j$ is calculated by Eq. 2.

$$\tilde{q}_j = \begin{cases} 1, & j = 1 \\ \frac{\tilde{q}_{j-1}}{\tilde{k}_j}, & j > 1 \end{cases} \quad (2)$$

Step 1-5: The fuzzy weight values of the criteria $(\widetilde{w}_j)$ are calculated with Eq. 3.

$$\widetilde{w}_j = \frac{\tilde{q}_j}{\sum_{j=1}^{n} \tilde{q}_j} \quad (3)$$

Step 1-6: The fuzzy weight values of the criteria are defuzzied with Eq. 4. In this equation (l, m, u) values represent triangular fuzzy numbers.

$$w_j = \frac{(\tilde{w}^u{}_j - \tilde{w}^l{}_j) + (\tilde{w}^m{}_j - \tilde{w}^l{}_j)}{3} + \tilde{w}^l{}_j \quad (4)$$

2.3. Fuzzy Ranking of Alternatives Through Functional Mapping of Criterion Sub-Intervals into A Single Interval Method (F-RAFSI)

The F-RAFSI method is the MCDM method developed by Žižović et al. (2020) for ranking alternatives. This method has been introduced as a technique that can transform from the initial decision matrix to an interval instead of the usual normalization operations. The steps of this method are shown below (Pamučar et al., 2020; Žižović et al., 2020; Alosta et al., 2021; Božanić et al., 2021):

Step 2-1: *Creating the Decision Matrix:* Using the linguistic and triangular fuzzy values shown in Table 5, a decision matrix consisting of *m* alternatives and *n* criteria is created by the *kth* decision maker in Eq. 5 (Liang et al., 2021).

Table 5: Linguistic Expressions and Triangular Fuzzy Number Values for Criterion Weighting (F-RAFSI)

Symbol	Definition	Triangular Fuzzy Number Value ($\tilde{\xi}_{ij}$)		
		l	m	u
VL	Very low	0,1	0,2	0,3
L	Low	0,2	0,3	0,4
ML	Medium low	0,3	0,4	0,5
M	Medium	0,4	0,5	0,6
MH	Medium High	0,5	0,6	0,7
H	High	0,6	0,7	0,8
VH	Very High	0,7	0,8	0,9

$$X^k = \begin{bmatrix} \tilde{\xi}_{11k} & \cdots & \tilde{\xi}_{1jk} & \cdots & \tilde{\xi}_{1nk} \\ \vdots & \cdots & \vdots & \cdots & \vdots \\ \tilde{\xi}_{i1k} & \cdots & \tilde{\xi}_{ijk} & \cdots & \tilde{\xi}_{ink} \\ \vdots & \cdots & \vdots & \cdots & \vdots \\ \tilde{\xi}_{m1k} & \cdots & \tilde{\xi}_{mjk} & \cdots & \tilde{\xi}_{mnk} \end{bmatrix} \quad (5)$$

$\tilde{\xi}_{ijk} = (\tilde{\xi}^l{}_{ijk}, \tilde{\xi}^m{}_{ijk}, \tilde{\xi}^u{}_{ijk})$, It is the evaluation of the k^{th} decision maker according to the j^{th} criterion for the i^{th} alternative. Eq. 6 is used to combine the alternatives and criteria evaluated by the decision makers (Yazdani et al., 2011).

$$X\tilde{\xi}^l{}_{ij} = min\{\tilde{\xi}_{ijk}\},\ \tilde{\xi}^m{}_{ij} = \frac{1}{k}\sum_{k=1}^{K}\tilde{\xi}_{ijk},\ \tilde{\xi}^u{}_{ij} = max\{\tilde{\xi}_{ijk}\} \quad (6)$$

Step 2-2: *Identification of ideal and anti-ideal values:* The ideal value ($C_j\left(\tilde{\xi}_{I_j}\right)$) or anti-ideal values ($C_j\left(\tilde{\xi}_{N_j}\right)$) of each criterion are determined by Eq. 7.

$$C_j \in \begin{cases} \left[\tilde{\xi}_{N_j}, \tilde{\xi}_{I_j}\right], for\ benefit\ criteria \\ \left[\tilde{\xi}_{I_j}, \tilde{\xi}_{N_j}\right], for\ cost\ criteria \end{cases} \quad (7)$$

Step 2-3: *Creating a standardized decision-making matrix* $\left(T = \left[\tilde{\varphi}_{ij}\right]_{mxn}\right)$*:* The $\tilde{f}_{A_i}(C_j)$ function is defined by using Eq. 8 from the decision matrices created in Step 2-1.

$$\tilde{f}_{A_i}(C_j) = \tilde{\varphi}_{ij} = \frac{n_b - n_1}{\tilde{\xi}_{I_j} - \tilde{\xi}_{N_j}}\tilde{\xi}_{ij} + \frac{\tilde{\xi}_{I_j}.n_1 - \tilde{\xi}_{N_j}.n_b}{\tilde{\xi}_{I_j} - \tilde{\xi}_{N_j}} \quad (8)$$

Here $n_b\ and\ n_1$ represent how well the ideal value is compared to the anti-ideal value. In addition, since the ideal value is suggested to be 6 times more important than the anti-ideal value, $n_1 = 1$ and $n_b = 6$ are assigned.

$$T = \begin{bmatrix} \tilde{\varphi}_{11} & \cdots & \tilde{\varphi}_{1j} & \cdots & \tilde{\varphi}_{1n} \\ \vdots & \cdots & \vdots & \cdots & \vdots \\ \tilde{\varphi}_{i1} & \cdots & \tilde{\varphi}_{ij} & \cdots & \tilde{\varphi}_{in} \\ \vdots & \cdots & \vdots & \cdots & \vdots \\ \tilde{\varphi}_{m1} & \cdots & \tilde{\varphi}_{mj} & \cdots & \tilde{\varphi}_{mn} \end{bmatrix}, \tilde{\varphi}_{ij} \in [n_1, n_b] \quad (9)$$

Step 2-4: *Generating the normalized decision matrix* $\left(N = \left[\tilde{\varphi}_{ij}\right]_{mxn}\right)$*:* With Eq. 10, the decision matrix is normalized. The normalized decision matrix in Eq.13 is created with the obtained values.

$$\tilde{\gamma}_{ij} \in \begin{cases} \frac{\tilde{\varphi}_{ij}}{2A}, for\ benefit\ criteria \\ \frac{H}{2\tilde{\varphi}_{ij}}, for\ cost\ criteria \end{cases} \quad (10)$$

A represents the arithmetic mean of $n_b\ and\ n_1$ elements (Eq. 11). H represents the harmonic mean (Eq. 12).

$$A = \frac{n_b + n_1}{2} \quad (11)$$

$$H = \frac{2}{\frac{1}{n_1} + \frac{1}{n_b}} \quad (12)$$

$$N = \begin{bmatrix} \tilde{\gamma}_{11} & \cdots & \tilde{\gamma}_{1j} & \cdots & \tilde{\gamma}_{1n} \\ \vdots & \cdots & \vdots & \cdots & \vdots \\ \tilde{\gamma}_{i1} & \cdots & \tilde{\gamma}_{ij} & \cdots & \tilde{\gamma}_{in} \\ \vdots & \cdots & \vdots & \cdots & \vdots \\ \tilde{\gamma}_{m1} & \cdots & \tilde{\gamma}_{mj} & \cdots & \tilde{\gamma}_{mn} \end{bmatrix} \quad (13)$$

Step 2-5: *Calculation of criterion functions of alternatives* $\left(\tilde{Q}(A_i)\right)$*:* With Eq. 14, the criterion functions of the alternatives are calculated.

$$\tilde{Q}(A_i) = \sum_{j=1}^{n} w_j \tilde{\gamma}_{ij} \quad (14)$$

Step 2-6: *Defuzzied of criteria functions of alternatives and determination of the best alternative:* Defuzzied is done with Eq. 15 and the alternatives are ranked.

$$Q(A_i) = \left(\tilde{Q}(A_i)^l + \tilde{Q}(A_i)^m + \tilde{Q}(A_i)^u\right)/6 \quad (15)$$

3. APPLICATION

In this research, the CBC selection problem serving in Sarp customs region of Turkey is discussed. The best CBC selection problem of an export firm using Sarp customs has been determined by applying F-SWARA and F-RAFSI methods. Data were collected from four decision makers from the export company (k=1,2,3,4). For the decision problem, seven criteria were used (j=1,2,3,4,5,6,7). Four CBCs determined as alternatives (i=1,2,3,4). The weights of the criteria were calculated using the F-SWARA method. Then, the alternatives were ranked using the F-RAFSI method. The steps applied are presented below:

Step 1-1: Table 6 shows the criteria ordered by the decision makers according to their importance.

Table 6: Ranking of Criteria by Decision Makers in order of Importance

DM1	DM2	DM3	DM4
C2	C2	C6	C6
C6	C6	C2	C2
C5	C7	C4	C5
C4	C5	C5	C4
C1	C4	C3	C7
C3	C3	C1	C3
C7	C1	C7	C1

Step 1-2: The criteria are evaluated linguistically by the decision makers according to the previous criteria. Linguistic expressions are shown in Table 7. Triangular fuzzy number values are shown in Table 8.

Table 7: Evaluation of Criteria by Decision Makers (Linguistic Expressions)

DM1		DM2		DM3		DM4	
C2		**C2**		**C6**		**C6**	
C6	VH	**C6**	VH	**C2**	VL	**C2**	VL
C5	L	**C7**	VL	**C4**	M	**C5**	L
C4	VL	**C5**	VH	**C5**	L	**C4**	VL
C1	MH	**C4**	ML	**C3**	H	**C7**	MH
C3	L	**C3**	M	**C1**	L	**C3**	VL
C7	VL	**C1**	VL	**C7**	MH	**C1**	M

Table 8: Evaluation of Criteria by Decision Makers (Triangular Fuzzy Number Values, $\tilde{s}_j$)

DM1				DM2				DM3				DM4			
	l	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**
C2				**C2**				**C6**				**C6**			
C6	0.90	1.00	1.00	**C6**	0.90	1.00	1.00	**C2**	0.00	0.00	0.10	**C2**	0.00	0.00	0.10
C5	0.00	0.10	0.30	**C7**	0.00	0.00	0.10	**C4**	0.30	0.50	0.70	**C5**	0.00	0.10	0.30
C4	0.00	0.00	0.10	**C5**	0.90	1.00	1.00	**C5**	0.00	0.10	0.30	**C4**	0.00	0.00	0.10
C1	0.50	0.70	0.90	**C4**	0.10	0.30	0.50	**C3**	0.70	0.90	1.00	**C7**	0.50	0.70	0.90

C3	0.00	0.10	0.30	**C3**	0.30	0.50	0.70	**C1**	0.00	0.10	0.30	**C3**	0.00	0.00	0.10
C7	0.00	0.00	0.10	**C1**	0.00	0.00	0.10	**C7**	0.50	0.70	0.90	**C1**	0.30	0.50	0.70

Step 1-3: $\tilde{k}_j$ coefficients are calculated by Eq. 1. It is shown in Table 9.

Table 9: $\tilde{k}_j$ Coefficients

	DM1				DM2				DM3				DM4		
	l	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**
C2	1,00	1,00	1,00	**C2**	1,00	1,00	1,00	**C6**	1,00	1,00	1,00	**C6**	1,00	1,00	1,00
C6	1,90	2,00	2,00	**C6**	1,90	2,00	2,00	**C2**	1,00	1,00	1,10	**C2**	1,00	1,00	1,10
C5	1,00	1,10	1,30	**C7**	1,00	1,00	1,10	**C4**	1,30	1,50	1,70	**C5**	1,00	1,10	1,30
C4	1,00	1,00	1,10	**C5**	1,90	2,00	2,00	**C5**	1,00	1,10	1,30	**C4**	1,00	1,00	1,10
C1	1,50	1,70	1,90	**C4**	1,10	1,30	1,50	**C3**	1,70	1,90	2,00	**C7**	1,50	1,70	1,90
C3	1,00	1,10	1,30	**C3**	1,30	1,50	1,70	**C1**	1,00	1,10	1,30	**C3**	1,00	1,00	1,10
C7	1,00	1,00	1,10	**C1**	1,00	1,00	1,10	**C7**	1,50	1,70	1,90	**C1**	1,30	1,50	1,70

Step 1-4: $\tilde{q}_j$ values are calculated by Eq. 2. It is shown in Table 10.

Table 10: $\tilde{q}_j$ Values

	DM1				DM2				DM3				DM4		
	l	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**
C2	1,0000	1,0000	1,0000	**C2**	1,0000	1,0000	1,0000	**C6**	1,0000	1,0000	1,0000	**C6**	1,0000	1,0000	1,0000
C6	0,5263	0,5000	0,5000	**C6**	0,5263	0,5000	0,5000	**C2**	1,0000	1,0000	0,9091	**C2**	1,0000	1,0000	0,9091
C5	0,5263	0,4545	0,3846	**C7**	0,5263	0,5000	0,4545	**C4**	0,7692	0,6667	0,5348	**C5**	1,0000	0,9091	0,6993
C4	0,5263	0,4545	0,3497	**C5**	0,2770	0,2500	0,2273	**C5**	0,7692	0,6061	0,4114	**C4**	1,0000	0,9091	0,6357
C1	0,3509	0,2674	0,1840	**C4**	0,2518	0,1923	0,1515	**C3**	0,4525	0,3190	0,2057	**C7**	0,6667	0,5348	0,3346
C3	0,3509	0,2431	0,1416	**C3**	0,1937	0,1282	0,0891	**C1**	0,4525	0,2900	0,1582	**C3**	0,6667	0,5348	0,3042
C7	0,3509	0,2431	0,1287	**C1**	0,1937	0,1282	0,0810	**C7**	0,3017	0,1706	0,0833	**C1**	0,5128	0,3565	0,1789

Step 1-5: $\tilde{w}_j$ values are calculated by Eq. 3. It is shown in Table 11.

Table 11: $\tilde{w}_j$ Values

	DM1				DM2				DM3				DM4		
	l	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**		**l**	**m**	**u**
C2	0,2754	0,3162	0,3719	**C2**	1,0000	1,0000	1,0000	**C6**	0,2107	0,2468	0,3028	**C6**	0,1711	0,1907	0,2462
C6	0,1449	0,1581	0,1860	**C6**	0,5263	0,5000	0,5000	**C2**	0,2107	0,2468	0,2753	**C2**	0,1711	0,1907	0,2238
C5	0,1449	0,1437	0,1431	**C7**	0,5263	0,5000	0,4545	**C4**	0,1621	0,1645	0,1619	**C5**	0,1711	0,1734	0,1722
C4	0,1449	0,1437	0,1301	**C5**	0,2770	0,2500	0,2273	**C5**	0,1621	0,1496	0,1246	**C4**	0,1711	0,1734	0,1565
C1	0,0966	0,0845	0,0684	**C4**	0,2518	0,1923	0,1515	**C3**	0,0954	0,0787	0,0623	**C7**	0,1140	0,1020	0,0824
C3	0,0966	0,0769	0,0527	**C3**	0,1937	0,1282	0,0891	**C1**	0,0954	0,0716	0,0479	**C3**	0,1140	0,1020	0,0749
C7	0,0966	0,0769	0,0479	**C1**	0,1937	0,1282	0,0810	**C7**	0,0636	0,0421	0,0252	**C1**	0,0877	0,0680	0,0441

Step 1-6: The geometric mean of the values in Table 11 was taken. Then, it was defuzzied with Eq. 4 and the weights of the criteria were calculated. The degree of importance and order of the criteria are shown in Table 12.

Table 12: Criteria Weights and Ranking

Criteria	w_j	Rankings
C2	0,2741	1
C6	0,1988	2
C5	0,1349	3
C4	0,1285	4
C1	0,0661	7
C3	0,0730	6
C7	0,0864	5

Step 2-1: The linguistic expressions of the decision makers are shown in Table 13 and the triangular fuzzy number values are shown in Table 14. The l, m and u values of the decision matrix combined with Eq. 6 are obtained. The combined decision matrix obtained is shown in Table 15.

Table 13: Decision Matrix (Linguistic Expressions)

		C1	C2	C3	C4	C5	C6	C7
	A1	M	VH	H	MH	H	H	H
DM1	**A2**	L	H	H	M	M	H	MH
	A3	H	MH	M	ML	M	H	M
	A4	H	L	ML	H	H	M	L
		C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**
	A1	M	H	MH	M	VH	M	VH
DM2	**A2**	M	H	MH	M	VH	VH	M
	A3	ML	MH	ML	M	M	H	H
	A4	L	M	L	H	ML	ML	L
		C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**
	A1	ML	H	MH	H	H	VH	VH
DM3	**A2**	ML	H	MH	VH	H	H	H
	A3	MH	MH	M	MH	M	M	M
	A4	H	M	ML	H	ML	ML	M
		C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**
	A1	H	M	H	M	MH	H	H
DM4	**A2**	ML	M	MH	M	H	M	MH
	A3	H	M	MH	M	M	M	MH
	A4	VL	M	M	ML	VL	L	M

Table 14: Decision Matrix (Triangular fuzzy number values, $\tilde{\xi}_{ij}$)

		C1			C2			C3			C4			C5			C6			C7		
		l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u
DM1	**A1**	0,4	0,5	0,6	0,7	0,8	0,9	0,6	0,7	0,8	0,5	0,6	0,7	0,6	0,7	0,8	0,6	0,7	0,8	0,6	0,7	0,8
	A2	0,2	0,3	0,4	0,6	0,7	0,8	0,6	0,7	0,8	0,4	0,5	0,6	0,4	0,5	0,6	0,6	0,7	0,8	0,5	0,6	0,7
	A3	0,6	0,7	0,8	0,5	0,6	0,7	0,4	0,5	0,6	0,3	0,4	0,5	0,4	0,5	0,6	0,6	0,7	0,8	0,4	0,5	0,6
	A4	0,6	0,7	0,8	0,2	0,3	0,4	0,3	0,4	0,5	0,6	0,7	0,8	0,6	0,7	0,8	0,4	0,5	0,6	0,2	0,3	0,4
DM2	**A1**	0,4	0,5	0,6	0,6	0,7	0,8	0,5	0,6	0,7	0,4	0,5	0,6	0,7	0,8	0,9	0,4	0,5	0,6	0,7	0,8	0,9
	A2	0,4	0,5	0,6	0,6	0,7	0,8	0,5	0,6	0,7	0,4	0,5	0,6	0,7	0,8	0,9	0,7	0,8	0,9	0,4	0,5	0,6
	A3	0,3	0,4	0,5	0,5	0,6	0,7	0,3	0,4	0,5	0,4	0,5	0,6	0,4	0,5	0,6	0,6	0,7	0,8	0,6	0,7	0,8
	A4	0,2	0,3	0,4	0,4	0,5	0,6	0,2	0,3	0,4	0,6	0,7	0,8	0,3	0,4	0,5	0,3	0,4	0,5	0,2	0,3	0,4
DM3	**A1**	0,3	0,4	0,5	0,6	0,7	0,8	0,5	0,6	0,7	0,6	0,7	0,8	0,6	0,7	0,8	0,7	0,8	0,9	0,7	0,8	0,9
	A2	0,3	0,4	0,5	0,6	0,7	0,8	0,5	0,6	0,7	0,7	0,8	0,9	0,6	0,7	0,8	0,6	0,7	0,8	0,6	0,7	0,8
	A3	0,5	0,6	0,7	0,5	0,6	0,7	0,4	0,5	0,6	0,5	0,6	0,7	0,4	0,5	0,6	0,4	0,5	0,6	0,4	0,5	0,6
	A4	0,6	0,7	0,8	0,4	0,5	0,6	0,3	0,4	0,5	0,6	0,7	0,8	0,3	0,4	0,5	0,3	0,4	0,5	0,4	0,5	0,6
DM4	**A1**	0,6	0,7	0,8	0,4	0,5	0,6	0,6	0,7	0,8	0,4	0,5	0,6	0,5	0,6	0,7	0,6	0,7	0,8	0,6	0,7	0,8
	A2	0,3	0,4	0,5	0,4	0,5	0,6	0,5	0,6	0,7	0,4	0,5	0,6	0,6	0,7	0,8	0,4	0,5	0,6	0,5	0,6	0,7
	A3	0,6	0,7	0,8	0,4	0,5	0,6	0,5	0,6	0,7	0,4	0,5	0,6	0,4	0,5	0,6	0,4	0,5	0,6	0,5	0,6	0,7
	A4	0,1	0,2	0,3	0,4	0,5	0,6	0,4	0,5	0,6	0,3	0,4	0,5	0,1	0,2	0,3	0,2	0,3	0,4	0,4	0,5	0,6

Table 15: Aggregated Decision Matrix

	C1			C2			C3			C4			C5			C6			C7		
	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u
A1	0,300	0,500	0,800	0,400	0,600	0,900	0,500	0,600	0,800	0,400	0,500	0,800	0,500	0,700	0,900	0,400	0,600	0,900	0,600	0,700	0,900
A2	0,200	0,400	0,600	0,400	0,600	0,800	0,500	0,600	0,800	0,400	0,500	0,900	0,400	0,600	0,900	0,400	0,600	0,900	0,400	0,600	0,800
A3	0,300	0,600	0,800	0,400	0,500	0,700	0,300	0,500	0,700	0,300	0,500	0,700	0,400	0,500	0,600	0,400	0,600	0,800	0,400	0,500	0,800
A4	0,100	0,400	0,800	0,200	0,400	0,600	0,200	0,400	0,600	0,300	0,600	0,800	0,100	0,400	0,800	0,200	0,400	0,600	0,200	0,400	0,600

Step 2-2: $C_j\left(\tilde{\xi}_{I_j}\right)$ and $C_j\left(\tilde{\xi}_{N_j}\right)$ values are shown in Table 16.

Table 16: Ideal and Anti-Ideal Values of the Criteria

	C1	C2	C3	C4	C5	C6	C7
Benefit criteria		[0,2; 0,9]	[0,2; 0,8]	[0,3; 0,9]	[0,1; 0,9]	[0,2; 0,9]	[0,2; 0,9]
Non-benefit criteria	[0,1; 0,8]						

Step 2-3: Standardized decision-making matrix $\left(\mathrm{T}=\left[\tilde{\varphi}_{\mathrm{ij}}\right]_{\mathrm{mxn}}\right)$ in Equation 9 is created with the $\tilde{f}_{A_i}(C_j)$ functions calculated by Eq. 8. T matrix is shown in Table 17.

Table 17: Standardized Decision-Making Matrix $(\mathbf{T\ Matrix})$

	C1			C2			C3			C4			C5			C6			C7		
	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u
A1	2,	4,	6,	2,	4,	6,	3,	4,	6,	1,	3,	5,	3,	4,	6,	2,	4,	6,	3,	4,	6,
	42	03	00	42	39	00	50	75	00	83	29	16	50	75	00	42	39	00	85	92	00
	9	6	0	9	3	0	0	0	0	3	2	7	0	0	0	9	3	0	7	9	0
A2	1,	3,	4,	2,	4,	5,	3,	4,	6,	1,	3,	6,	2,	4,	6,	2,	4,	6,	2,	3,	5,
	71	14	57	42	21	28	50	54	00	83	29	00	87	59	00	42	39	00	42	85	28
	4	3	1	9	4	6	0	2	0	3	2	0	5	4	0	9	3	0	9	7	6
A3	2,	4,	6,	2,	3,	4,	1,	3,	5,	1,	2,	4,	2,	3,	4,	2,	3,	5,	2,	3,	5,
	42	57	00	42	67	57	83	50	16	00	66	33	87	50	12	42	85	28	42	67	28
	9	1	0	9	9	1	3	0	7	0	7	3	5	0	5	9	7	6	9	9	6
A4	1,	3,	6,	1,	2,	3,	1,	2,	4,	1,	3,	5,	1,	3,	5,	1,	2,	3,	1,	2,	3,
	00	67	00	00	78	85	00	66	33	00	70	16	00	03	37	00	42	85	00	42	85
	0	9	0	0	6	7	0	7	3	0	8	7	0	1	5	0	9	7	0	9	7

Step 2-4: With Eq. 10, the decision matrix is normalized $\left(N=\left[\tilde{\varphi}_{ij}\right]_{mxn}\right)$. The resulting normalized decision matrix is shown in Table 18.

Table 18: Normalized Decision-Making Matrix $(\mathbf{N\ Matrix})$

	C1			C2			C3			C4			C5			C6			C7		
	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u	l	m	u
A1	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	35	21	14	34	62	85	50	67	85	26	47	73	50	67	85	34	62	85	55	70	85
	3	2	3	7	8	7	0	9	7	2	0	8	0	9	7	7	8	7	1	4	7
A2	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	50	27	18	34	60	75	50	64	85	26	47	85	41	65	85	34	62	85	34	55	75
	0	3	8	7	2	5	0	9	7	2	0	7	1	6	7	7	8	7	7	1	5
A3	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	35	18	14	34	52	65	26	50	73	14	38	61	41	50	58	34	55	75	34	52	75
	3	8	3	7	6	3	2	0	8	3	1	9	1	0	9	7	1	5	7	6	5
A4	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,	0,
	85	23	14	14	39	55	14	38	61	14	53	73	14	43	76	14	34	55	14	34	55
	7	3	3	3	8	1	3	1	9	3	0	8	3	3	8	3	7	1	3	7	1

Step 2-5: The criterion function values of the alternatives calculated by Eq. 14 are shown in Table 19 $\left(\tilde{Q}(A_i)\right)$.

Table 19: Criterion Function Values of Alternatives $\left(\widetilde{\boldsymbol{Q}}(\boldsymbol{A_i})\right)$

	l	m	u
A1	0,373	0,573	0,762
A2	0,353	0,552	0,743
A3	0,310	0,464	0,617
A4	0,185	0,378	0,561

Step 2-6: The ranking of the alternatives obtained as a result of the defuzzification process with Eq. 15 is shown in Table 20.

Table 20: Ranking of Alternatives

Alternatives	A1	A2	A3	A4
$Q(A_i)$	0,2846	0,2746	0,2319	0,1873
Rankings	1	2	3	4

4. RESULTS AND CONCLUSION

Customs clearance, storage, export/import documentation of commercial goods, preparation of goods documents according to customs tariff codes and customs regimes are carried out at customs, which are the connection points of international trade. These processes require expertise. CBCs offer services to import/export companies as experts by being authorized directly. In this research, the selection problem of CBCs serving in the Sarp customs region of Turkey is discussed. In this context, F-SWARA and F-RAFSI methods were applied. The criteria were weighted with the F-SWARA method. Before the application of the method, a literature review was made, and a cluster of selection criteria was determined. Subsequently, the most suitable seven criteria were determined from this cluster. As a result of the F-SWARA method application, the highest criterion weight was determined as the *Service Quality* ($w_2 = 0{,}2741$). The lowest weight was determined as the *Reputation* ($w_7 = 0{,}0864$). The order of priority of the other criteria is as follows: *Professionalism* ($w_6 = 0{,}1988$), *Relationship* ($w_5 = 0{,}1349$), *Flexibility* ($w_4 = 0{,}1285$), *Cost/Price* ($w_1 = 0{,}0661$), *Information system and technology* ($w_3 = 0{,}0730$). According to these results, it is understood that the service quality of CBCs comes first. Since customs clearance activities are service-oriented activities, it is an expected result that this criterion appears as the most effective criterion. However, the reputation, which has a parallel relationship with service quality, is not among the results expected to be the lowest criterion. At this point, it can be mentioned that instead of gaining prestige in choosing a CBC, being a pioneer in service quality provide an advantage. It is also understood that CBC acting professionally and following effective strategies in customer relations make the companies preferable. F-RAFSI method was applied to select the best company among the four companies serving in the Sarp customs region. For the research findings, the first alternative $Q(A_1) = 0{,}2846$ is at the top of the ranking. However, there is a 1% difference between the second alternative and the first alternative $Q(A_2) = 0{,}2746$. It has been observed that this difference is statistically very close. Other alternatives are at a lower level in terms of preference than the first two alternatives. Finally, the first alternative was preferred in the problem that was solved with fuzzy-based MCDM problem methods.

With this research, two important contributions were made to the literature by making the CBC selection application, which is a logistics service provider company. Firstly, the criteria and criterion weights used in the CBC selection problem were determined and shed light on practical applications. Secondly, it has been proven that fuzzy-based decision-making problem can be handled in CBC selection as in other 3PL firm selection problems. Thus, suggestions have been developed for researchers and export companies. Suggestions to export companies are as follows: (i) CBCs should focus on the service quality of the companies in their selection. (ii) CBCs should apply multi criteria decision making techniques instead of intuitive decision making. (iii) While evaluating among the alternatives, CBCs should make choices based on many criteria instead of accepting the reputation levels of the firms. (iv) Expert opinions should be considered in selecting a CBC. Suggestions for researchers include: (i) The criteria determined in this research can be used in different fields. (ii) Various fuzzy-based MCDM methods can be applied for this problem. (iii) The problem can be solved by increasing the criteria for different areas. (iv) CBC selection problem of import companies can be applied by dealing with same methods or different methods.

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THE EFFECT OF HEALTHCARE PROFESSIONALS' PERCEPTIONS OF EMOTIONAL COMMITMENT AND ORGANIZATIONAL TRUST ON THE LEVEL OF TASK PERFORMANCE

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ABSTRACT

Purpose- This study aims to investigate the effect of healthcare workers' emotional commitment on performance through organizational trust.
Methodology- To examine the relationship between dependent and independent variables, data were collected through questionnaires with 420 health workers working in various hospitals. The collected data were analyzed with statistical methods used in social sciences.
Findings- As a result of data analysis, it has been proven that continuance commitment and normative commitment have a positive effect on organizational trust. While continuance commitment had a positive effect on performance, normative commitment did not have a positive effect on performance. It has been observed that organizational trust has a positive effect on performance. While the partial mediating effect of continuance commitment on performance through an organizational trust has been proven,
No positive effect of normative commitment on performance through the organizational trust was observed.
Conclusion- This study shows that the emotional commitment of health workers, which is extremely important for health businesses, can increase their performance through organizational trust. This model can be a role model for other healthcare organizations and fills a research gap by providing an experimental study of repeated hospital management.

Keywords: Emotional commitment, organizational trust, performance, health worker, hospital management
JEL Codes: M10, M11, M12

1. INTRODUCTION

In the strong competitive environment and in the business world where changes are experienced rapidly, organizations are constantly developing new strategies to maintain their continuity in uncertain environmental conditions. The health sector, which is one of the most important sectors of the service sector and contributes to the protection and development of the health of society, has an important place in the economy. Managers in health institutions have a significant impact on employees, and qualified and experienced personnel are needed to provide a competitive advantage (Küsbeci, 2022). It is easier for businesses that care about their employees to reach their goals and objectives (Boz et al., 2021). Employees' loyalty to their organizations, their trust in their organization, their managers, and their colleagues are the prerequisites for having good feelings towards the work itself and the workplace. There is no real commitment to an organization that cannot be trusted. Bonding, cooperation, and sharing between employees depend on organizational trust and organizational commitment (OC). Organizations with high organizational commitment (OC) and organizational trust (OT) perform better than other organizations.

The literature considers the most valuable asset that businesses have as "employees". What is very popular today is fierce competition, productivity, and employee performance. The most important factor affecting these is an emotional attachment to the business (Çankır, 2019). Organizational commitment (OC) is the adoption of the goals and objectives of the business

by the employees, seeing this place as if it is their family and accepting it as a member of this family. People who are emotionally attached to the organization choose to stay in the organization for a long time and contribute to the organization. If his organizational commitment (OC) is low, he sees this place as a step for his personal development and leaves when he finds the first opportunity (Güney and Turan, 2021). Businesses need to keep the level of organizational commitment (OC) high to prevent employees from leaving the organization and wasting resources.

Today, businesses affected by the changes in social and economic values have difficulties in keeping trust at the same level and building organizational trust (OT) (Saygın and Atalay, 2021). Organizational trust (OT) expresses both the trust in individuals and the trust in the organization as a whole (Vanhala et al., 2016). Organizational trust (OT)is needed for effective communication and cooperation among employees in the process of organizational interaction. It facilitates organizational commitment (OC) based on organizational trust(OT) (Guler and Diken, 2019).

The achievement of the goals and objectives of the enterprises is closely related to employee performance (EP). The concept of performance is multidimensional and the continuity and success of enterprises are evaluated together with performance (Bayar, 2020). Employee performance (EP) on the other hand, is a concept used when the concept of performance is examined by the employee (Audenaert et al., 2021). Task performance includes contributing to tasks in the production, sale, or management of a good or service. Business performance cannot be increased without increasing employee performance (EP). Measurements should be made at regular intervals to learn the effect of performance (Chien et al., 2020). At the end of this measurement, the factors affecting the performance of the employees should be determined and necessary arrangements should be made. Accurate determination of the factors affecting the performance of employees provides ideas for improvements in future planning (Çelik et al., 2022).

To increase employee performance (EP), valuing the opinions of employees and themselves, ensuring their participation in business decisions, evaluating complaints and suggestions, contributing to their personal development, a safe working environment, activities that strengthen social relations, social benefits, participatory management rather than hierarchy, fair to employees. If equal treatment and fairness in salary and seniority are ensured, both job performance will increase and the employee will feel happy, and their loyalty and trust in the organization will increase. This study was conducted to reveal how the organizational commitment(OC) and organizational trust(OT) of health workers, who have a very important place in the service sector, affect their job performance. A detailed literature review was made, and hypotheses and research models were formed. Findings and conclusion, discussion, and suggestions are given.

2. LITERATURE REVIEW

2.1. Emotional Commitment (EC)

Organizational commitment (OC); It is the relationship and commitment that the employees of the organization develop towards their organizations. It is beneficial for both employers and employees (Gayir, 2019). The three-dimensional organizational commitment (OC) model was developed by Meyer and Allen (1991). These; are affective commitment, continuance commitment (cost-based commitment), and normative commitment (conscience-based commitment). Individuals with emotion-based commitment stay in the organization voluntarily. Individuals with cost-based commitment stay in the business out of financial need. Those who have a conscience-based commitment remain within the organization due to their debt of gratitude (Cited by, Can et al., 2022).

In the literature, there is a difference of opinion among academicians between organizational commitment and its sub-dimensions (Meyer and Allen, 1991); (Morrow, 1993); (Mowday et al., 1982). They conceptually divided the definitions of commitment into three categories "wants and desires", "perceived cost" and "obligation". "Emotional commitment" (EC) is based on desire and willingness, "continuance commitment" is based on perceived cost, and "normative commitment" is based on necessity. Affective Commitment: It is the type of organizational commitment that organizations want and desire to have in general (Büyükyılmaz et al., 2018). If employees become emotionally integrated to achieve the goals and objectives of the business, emotional commitment occurs and they want to work in the business for a long time (Meyer and Allen, 1991). Employees who are emotionally attached to their organizations do their jobs better and more lovingly (Meyer and Herscovitch, 2001).

In today's business environments where rapid changes are experienced, businesses with emotional commitment(EC) show higher performance than other businesses. The employee who identifies with his/her own identity and his/her organization is attached to his/her organization with a strong feeling, and the reason for his/her stay in the company is not the material factors and rewards, but the strong bond with his/her organization (Pieper et al., 2018). Emotional commitment is influenced by various factors. These; It is the character and personal characteristics of the job, the job and its characteristics, experience, the organization's valuation of the employee, organizational justice, job security, allowing participation in decisions, effective communication, organizational trust, and organizational culture (Hatipoğlu, 2019).

2.2. Organizational Trust (OT)

The concept of trust is very broad, it can be used in psychology, politics, sociology, economics, anthropology, history, etc. It has been the subject of important research in many branches of science. Trust indicates the level of belief that a person has to treat another person or organization in a fair, ethical, and predictable way (Nyhan, 1999). Trust is one of the most important elements of personal relations and organizational life, and it acts as a catalyst for healthy relations in organizations (Kalfaoğlu and Efeoğlu, 2022). There are employees with various knowledge and skills and different characters. These individuals work collaboratively to fulfill both their personal and organizational goals. This work requires interdependence and trust (Mayer et al., 1995). It is the feeling of trust that holds employees together and is a prerequisite for achieving organizational and individual goals (Gilberg and Tang, 1998). In an environment where there is no trust, chronic suspicion prevails, which causes individuals to be wary of each other.

In the literature, it is seen that organizational trust (OT) is handled in three dimensions. These; are trust in the organization, trust in the manager, and trust in colleagues (Tan and Tan, 2000). Although there is a relationship between these concepts, there may not be a relationship in some cases. For example, while an employee trusts the organization, he may not trust the manager or his colleagues. The individual who trusts the manager may not trust the organization or his friends.

People working together need interdependence. To achieve their personal and organizational goals, they need to get help from each other in various ways. Employees' feelings of trust towards their managers can be fed by the managers' benevolent behavior (Mayer et al., 1995). The lack of trust and respect in the business environment has a damaging effect on both the organization and the employee. An insecure employee contributes less to organizational goals and actions than an employee in a high-trust environment. Therefore, there is a strong relationship between trust and empowerment in terms of creating an environment of work efficiency (Lashinger and Finegan, 2005).

2.3. Task Performance (TP)

One of the most important issues for businesses is performance and the future of the business depends on its performance. The performance gives information about the business and they want to work with people with high performance in businesses. If businesses value employees and try to understand them, their performance will be high, and thus business performance will increase. This situation creates an opportunity for the business to grow and provide a competitive advantage over time (Sifah et al., 2020). On the contrary, working with low-performing employees may result in the slow progress of businesses in many respects, and in some cases, their progress is completely stopped. For such reasons, businesses want to continue on their way with employees with high performance (Derebew et al., 2021).

Organizational performance (TP) is measured in two ways as task performance and contextual performance (Sonnentag and Frese, 2002). Task performance (TP) is the performance of achieving the basic transformations in the job description and performing the actions (Befort and Hattrup, 2003). It specifies the basic responsibilities that must be done while doing the job (Jawahar and Carr, 2007). Task performance (TP) is also associated with behavioral patterns that directly play a role in the production of goods or services for a job, and the technical and specialist aspects of the job in question (Van Scotter, et al., 2000). Contextual performance, on the other hand, includes behavioral patterns that psychologically and socially support the environment in which task activities are performed (Motowidlo and Van Scotter, 1994). Three elements determine task performance. These are focus, competence, and dedication. Focus is the employee's focusing on his work, giving himself to his work, and contributing to organizational goals. Competence is when the employee has the necessary knowledge, skills, and competencies while performing his/her job. Dedication is the employee's fulfillment of his duty and the sense of achievement (Cited by Aksu et al., 2021).

2.4. Hypothesis Development

Although many factors affect the effective and productive working of organizations, the commitment of the employees to the organization is in the first place (Ayber and Marşap, 2018). Providing the highest degree of benefit to the employees in the working environment will be achieved through their commitment to the organization. For this reason, organizations seek ways to increase the level of trust of employees in the organization and thus try to increase their commitment to the organization (Taşkın and Dilek, 2010); (Cho et al., 2011); (Tremblay, et al., 2010); (Naktiyok and İşcan, 2019).

Emotional commitment is an important determinant of organizational commitment and individuals with high emotional commitment contribute more to the organization (Çetin, 2021). Trust is important in businesses and no business thrives without trust. According to researchers, an increase in organizational trust, emotional commitment, and an increase in emotional commitment increase organizational trust (Güler and Diken, 2019); (Cetin, 2021); Among the variables used in the study, many studies find the significant effect of emotional commitment on the perception of organizational trust (Cansoy and Polatcan, 2019; Ferreira-Oliveira et al., 2020). also found significant relationships between affective commitment and

continuance commitment. Yıldız (2019), on the other hand, found a positive and significant relationship between organizational trust, affective commitment, and normative commitment, but no relationship was found between continuance commitment. Güney and Turan (2021), on the other hand, show that organizational trust has a positive and significant effect on normative commitment. Proving that there is a positive relationship between organizational trust and emotional commitment (Rahmani and Heydari, 2017); (Gellatly and Withey, 2012); (Mohamed et al., 2012) ; (Uzun,2018). The following hypotheses were produced based on the literature.

H1: Continuance commitment has a positive effect on organizational trust.

H2: Normative commitment has a positive effect on organizational trust.

Emotional commitment is the most important indicator that affects the behavior and performance of the employee compared to other types of commitment (Grant et al., 2008). Employees with high emotional commitment increase the performance and success of the business (Tanriverdi and Koçaslan, 2018); (Kaya, 2016); (Uludag, 2018); (Boz et al., 2021). (Çankır, 2019). Employees with high emotional commitment are more willing to do their jobs and easily adopt the goals of the business. Keskin (2018) stated that productivity, job satisfaction, knowledge transfer, organizational trust, continuity, effective resource use, and organizational citizenship behavior are high in businesses where the organizational commitment levels of employees are high. Employees with high emotional commitment work more effectively and efficiently in the organization than those who are not emotionally connected and increase organizational performance (Zatzick et al., 2015). Affective commitment is the type of commitment that most positively affects employee and organizational performance. In different studies on this subject, it has been concluded that organizational commitment affects employee performance (Al Zefeiti and Mohamad, 2017); (Atmojo, 2015); (Cesário and Chambel, 2017); (Joo and Bennett, 2018); (Nart and Batur, 2013); (Kilic, 2019); (Yorulmaz and Karabacak, 2020) (Wahyuni, et al., 2014); (Akdemir et al., 2016); (Arsezen et al., 2015); (Ellinger et al., 2013); (Arshadi and Hayavi, 2013) ; (Tekin,2021). The following hypotheses were generated from these studies.

H3: Continuance commitment has a positive effect on performance.

H4: Normative commitment has a positive effect on performance.

Organizational trust has many positive effects on organizational management and employment relations. The most important of these is that it affects business performance positively (Ning et al., 2007); (Setyaningrum et al., 2017); (Yorulmaz and Karabacak, 2020). It is known that there is a positive and statistically significant relationship between organizational employees' job performances and trust in the manager, trust in the organization, and trust in friends (Turhan et al., 2018). Employees who trust their managers increase their performance (Kabaday and Türkay, 2019); (Yorulmaz and Karabacak,2020). He states that trust in the organization prevents negative employee behaviors against work productivity and therefore increases organizational performance (Nyhan, 2000). Studies are showing that organizational trust positively affects job performance (Recepoğlu et al., 2019); (Cankul et al.,2018); (Bute, 2011); (Yeşil et al., 2021); (Usikalu et al., 2015), (Duzgun, 2022); (Yorlmaz and Karabacak, 2020) ; (Onyeizugbe et al., 2018) ; (Mahmud., 2021). In line with the literature, the following hypothesis was accepted

H5: Organizational trust has a positive effect on performance.

One of the important components that affect business performance is the emotional commitment of employees to the organization. Employees who are emotionally attached to the business work better, share their knowledge, have high job satisfaction levels and shape the future of the company in a positive way (Çankır, 2019). In his study, Keskin (2018) reported that business efficiency, job satisfaction, information sharing, organizational trust, work continuity, effective resource use, and organizational citizenship behavior are also high in businesses where organizational commitment levels are high. Boz et al., (2021) stated that employees' commitment to the organization and their managers affects their trust. In this context, emotional commitment affects trust and increases employee performance. In line with the literature, the following hypotheses have been established.

H6: Continuance commitment has a positive effect on performance through organizational trust.

H7: Normative commitment has a positive effect on performance through organizational trust

3. DATA AND METHODOLOGY

3.1. Purpose and Importance of Research

The main purpose of this study is to reveal the mediating effect of organizational trust on the effect of emotional commitment on task performance. The health sector is a patient-centered service sector in which many health disciplines work together. Many healthcare businesses are competing in an intensely competitive environment. To combat this challenging situation,

businesses need to direct their employees in line with organizational goals. This will happen thanks to the employees who are emotionally attached to the organization and trust the organization, the manager, and their colleagues. Such employees will increase their organizational performance while increasing their performance.

3.2. Content and Limits of Research

The universe of this study consists of employees working in various public university hospitals in Istanbul, Turkey. The sample of the research is 424 health workers who voluntarily participated in the research. In determining the sample size, the criterion of Yazıcıoğlu and Erdoğan (2004) that the universe between 1,000,000 and 100,000,000 is 384 samples with a 95% confidence interval and a 5% margin of error was taken into account. given. A convenience sampling technique was followed in data collection. This technique was preferred because it is easy, low cost, and data collection in a short time (Gürbüz and Şahin, 2014). The data of the study were collected between 04.11.2022 and 25.11.2022.

3.3. Ethical Aspect of Research

After determining the purpose and scope of the study, the necessary forms were created to evaluate its ethical suitability, and an application was made to the Scientific Research and Publication Ethics Committee of Artvin Coruh University. With the Board's decision dated 31.10.2022 and numbered E-67569, permission was obtained regarding its ethical compliance. A short paragraph was included at the beginning of the questionnaire to indicate the purpose of the study, and informed consent was obtained from the healthcare professionals who participated in the study.

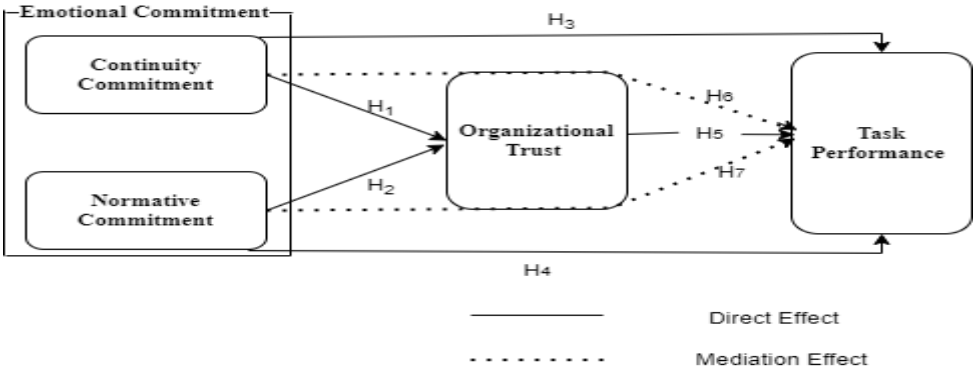
3.4. Research Method and Research Scales

The survey method was used as a data collection method within the scope of the research. The collected data, frequency breakdown, validity, reliability, correlation, and regression analyzes were made using statistical package programs. The questionnaire consists of four parts. The first part consists of demographic information about institutions and employees. The questions were prepared by the authors. In the second part, the eight-statement affective commitment scale developed by Meyer and Allen in 1991 was used. In the third part, the Organizational trust scale consisting of 12 questions, which was created by Nyhan and Marlowe (1997) and adapted into Turkish by Demircan (2003), was used. The first 8 questions are about trust in the manager and the other 4 questions are about trust in the organization and consist of two dimensions. In the fourth part, the first 16 statements of the scale containing 25 statements, developed by Goodman and Svyantek (1999), are for contextual performance, and the last 9 statements are for task performance. Only questions related to task performance were used in the study. The questions of emotional commitment, organizational trust, and task performance scale were prepared in 7 Likert types

3.4. Research Model

Before determining the study model, a comprehensive literature review was conducted and the literature on the relationships between study variables was summarized. Many studies have found the significant effect of emotional commitment, one of the variables used in the study, on the perception of organizational trust (Cansoy and Polatcan, 2019; (Ferreira-Oliveira et al., 2020). Various studies find a significant effect of emotional commitment on employee performance (Nart and Batur, 2013); (Atmojo, 2015); (Kaya, 2016); (Al Zefeiti and Mohamad, 2017;) (Cesário and Chambel, 2017); (Joo and Bennett, 2018); (Kılıç, 2019); (Çankır, 2019); (Boz et al., 2021). Finally, it has been seen that many studies have found that the perception of organizational trust has a significant effect on performance (Büte, 2011); (Kabadayı and Türkay, 2020). Based on these findings in the study, the following model was developed and hypotheses were put forward.

Figure 1: Research Model



Within the scope of the model given in Figure 1, 7 hypotheses were put forward and the analyzes were carried out within this framework. The hypotheses are given below.

H1: Continuance commitment has a positive effect on organizational trust.

H2: Normative commitment has a positive effect on organizational trust.

H3: Continuance commitment has a positive effect on performance.

H4: Normative commitment has a positive effect on performance.

H5: Organizational trust has a positive effect on performance.

H6: Continuance commitment has a positive effect on performance through organizational trust.

H7: Normative commitment has a positive effect on performance through organizational trust.

4. FINDINGS AND DISCUSSIONS

70.0% of the participants who answered the research questions are women and 30.0% are men. In addition, it is seen that 62.9% of the participants are married and 37.1% are single. When the occupational distribution is examined, 41.4% are nurses, 20.7% are administrative workers, 9.5% are nurses, 6.0% are technicians, and 6.0% are doctors and other professionals. Approximately half of the participants are university graduates. The rate of high school graduates is 23.6%, the rate of master's graduates is 17.4% and the rate of doctoral graduates is 5.7%. The proportion of those aged 18-20 is 3.1%, the proportion of those aged 21-25 is 10.5%, the proportion of those aged 26-30 is 12.9%, the proportion of those aged 31-35 is 18.3, 36- The proportion of those aged 40 is 17.9, the proportion of those aged 41-45 is 17.1, the proportion of those aged 46-50 is 14, the proportion of those aged 51-55 is 4.3, and the proportion of those aged 56 and over is 1%, It has been identified as 9. The average age of the participants was calculated as 37.08. The average working year of the participants in the profession is 14.60 years, and the average working year in the institution is 13.83 years.

The Cronbach Alpha coefficients found as a result of the validity and reliability analysis applied to the scales used in the research questions show that the scales are safe for the study. Correlation Analysis was performed to measure the linear relationships between the variables. To determine whether there is a mediating effect, in addition to the hypotheses aiming to reveal the direct effects, regression analysis was also applied. The Cronbach Alpha coefficient, which is used to calculate the internal consistency of the factors, shows that the questions taking the factor are highly reliable.

Tablo 1: Confidence Degree of Scale Variables and Subcomponents

Variables and Subcomponents	Item	Cronbach's Alpha
Emotional Commitment	8	0,890
Continuity Commitment	6	0,919
Normative Commitment	2	0,813
Organizational Trust	12	0,970
Task Performance	9	0,911

Table 1 shows the results of the main and sub-components as a result of the reliability tests of the scales. As a result of the general reliability analysis for the performance-dependent variable consisting of 9 questions, a value of 0.911 was obtained. The Cronbach's Alpha value obtained for the main component of affective commitment was found to be 0.890. In addition, Cronbach's Alpha value calculated for continuance commitment, which is one of the sub-components of affective commitment, was calculated as 0.919 and Cronbach's Alpha value for normative commitment was calculated as 0.813. The Cronbach Alpha value of the organizational trust independent variable is 0.970. In addition, the general reliability analysis result for 29 questions of the scale was found to be 0.946. Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity were conducted to investigate the suitability of variables for factor analysis. Since the limit value for sample adequacy in Table 2 is 0.930, it is seen that the validity is excellent.

Table 2: Affective Commitment and Organizational Trust (Independent Variables) KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0,930
	Bartlett's Test of Sphericity	6026,219

Bartlett's Test of Sphericity	Df	190
	Sig	0,000

When the reliability analysis of the scales calculated in Table 2 and the results of the Kaiser-Meyer-Olkin (KMO) and Bartlett Test of Sphericity were examined, it was concluded that the scales of the model variables and sub-components were reliable. In addition, as one of the normality assumptions, it is seen in table 3 that the results of the Bartlett Test of Sphericity are significant at <0.05.

Table 3: Performance (Dependent Variables) KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0,904
Bartlett's Test of Sphericity	Bartlett's Test of Sphericity	2553,188
	Df	36
	Sig	0,000

Since the Kaiser-Meyer-Olkin (KMO) values calculated in Table 3 were greater than 0.70 and the p-value of Bartlett's Sphericity Test results was less than 0.05, it was decided that the data set was suitable for factor analysis and exploratory factor analysis was applied. The distribution of factor loads obtained as a result of the exploratory factor analysis applied to the independent and dependent variables is shown in detail in Table 4. Considering the distribution of independent variables, it is seen that the main component of affective commitment is divided into two subcomponents as continuance commitment and normative commitment. The independent variable of organizational trust, on the other hand, shows the distribution in a single factor. The main component of performance, which was included in the model as a dependent variable, was also collected in a single factor. Correlation analysis was applied to determine the existence of the multicollinearity problem between the variables, and the direction and strength of the relationship. Analysis results are given in Table 5.

Table 5: Descriptive Statistics and Correlation

		Continuity Commitment	**Normative Commitment**	**Organizational Trust**	**Task Performance**
Continuity Commitment	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	420			
Normative Commitment	Pearson Correlation	,000	1		
	Sig. (2-tailed)	1			
	N	420	420		
Organizational Trust	Pearson Correlation	,436**	,163**	1	
	Sig. (2-tailed)	,000	,001		
	N	420	420	420	
Task Performance	Pearson Correlation	,406**	,091**	,334**	1
	Sig. (2-tailed)	,000	,000	1,000	
	N	420	420	420	420

**: The correlation is significant at the 0.01 level. *: The correlation is significant at the 0.05 level.

When Table 5 is examined, it is seen that there is a positive and significant relationship between continuance commitment, normative commitment, and organizational trust, which are sub-components of affective commitment as independent variables in the research model, and the performance dependent variable. In addition, it was determined that the relations between organizational trust and job satisfaction sub-dimensions were positive and significant. When the calculated correlation coefficients were evaluated, it was concluded that there was no multicollinearity problem since the tolerance values calculated for all variables were not below 0.10 and the VIF values were not above 10 (Pallant, 2005). Regression analyzes were applied to test the hypotheses in the research model. Table 6 shows the results of the regression analysis in which the effects of continuance commitment, normative commitment, and organizational trust on performance were tested.

According to the determination coefficient obtained as a result of the regression made to determine the effects of continuance commitment on organizational trust, continuance commitment explains the organizational trust variable at a rate of 18.8% (Adjusted R^2 = 0.188). Model 1 in Table 6 shows that the positive effect of continuance commitment on organizational trust is significant (p>0.05). Since continuance commitment has a positive effect on organizational trust (β: 0.436, p <0.01), the H1 hypothesis that "continuance commitment has a positive effect on organizational trust" was accepted.

Regression analysis results were used in model 2 in table 6 to test the effect of normative commitment on organizational trust. According to the coefficient of determination obtained, normative commitment explains the organizational trust variable by 2.4% (Adjusted R^2 = 0.024). Model 2 in Table 6 shows that the positive effect of normative commitment on organizational trust is significant (p>0.05). Since it was determined that normative commitment positively affects organizational trust (β: 0.163, p <0.01), the H2 hypothesis stating that "normative commitment positively affects organizational trust" was accepted.

Regression analysis was applied to test the effects of continuance commitment on performance. Continuance commitment by the coefficient of determination explains 16.3% of performance (Adjusted R^2 = 0.163). Model 3 in Table 6 shows that the effect of continuance commitment on performance is significant (p>0.05). Since continuance commitment has a positive effect on performance (β: 0.406, p <0.01), hypothesis H3 that "continuance commitment has a positive effect on performance" was accepted.

With the regression analysis, the effect of normative commitment on performance was tried to be determined. Normative adherence to the coefficient of determination explains 0.6% of the performance variable (adjusted R^2 = 0.006). Model 4 in Table 6 shows that the positive effect of normative commitment on performance is not significant (p=0.062). Since the result of normative commitment positively affecting performance (β: 0.091, p >0.05) was not significant, the H4 hypothesis that "normative commitment affects performance positively" was not accepted.

Regression analysis was applied to test the effects of organizational trust on performance. According to the coefficient of determination, organizational trust explains the performance variable by 11% (Adjusted R^2 = 0.110). Model 5 in Table 6 shows that organizational trust has a significant positive effect on performance (p>0.05). Since it was determined that organizational trust has a positive effect on performance (β: 0.334, p<0.01), the H5 hypothesis that "organizational trust has a positive effect on performance" was accepted.

Table 6: Regression Analysis (Emotional Commitment, Organizational Trust & Task Performance)

Model	Independent variable	Dependent Variable	*B*	t	P	R^2	F
1	Continuity Commitment	Organizational Trust	0,436	9,901	0,000	0,188	98,027***
2	Normative Commitment	Organizational Trust	0,163	3,375	0,000	0,024	11,390***
3	Continuity Commitment	Task Performance	0,406	9,073	0,000	0,163	82,312***
4	Normative Commitment	Task Performance	0,091	1,871	0,062	0,006	3,500***
5	Organizational Trust	Task Performance	0,334	7,239	0,000	0,110	52,403***
6	Continuity Commitment	Task Performance	0,321	6,576	0,000	0,191	50,478***
	Organizational Trust		0,194	3,967	0,000		
7	Normative Commitment	Task Performance	0,328	7,008	0,000	0,109	26,505***
	Organizational Trust		0,038	0,807	0,420		

*p<0,05, **p<0,01, ***p<0,001

To prove the role of the mediator variable using regression analysis; the effect of the independent variable on the mediating variable and the dependent variable and the effect of the mediating variable on the dependent variable should be shown. In addition to this step, when regression analysis is performed on the mediating variable and the independent variable together, it should give results that the effect of the independent variable on the dependent variable is eliminated or decreased (Baron

and Kenny, 1986). If the effect of the independent variable on the dependent variable is eliminated, "full mediation", if it decreases, "partial mediation" can be mentioned (Baron and Kenny, 1986).

As a result of the mediation analysis conducted to test the mediation effect of organizational trust in Table 7, it is seen that continuance commitment affects performance through organizational trust. In the first and second regressions in Table 7, it is seen that continuance commitment has a significant positive effect on performance (p=0.000, β=0.406) and organizational trust (p = 0.000, β = 0.436). In the third regression, when organizational trust was included in the analysis together with continuance commitment as an independent variable, it was found that the positive effect of continuance commitment decreased and it had a positive and significant effect on performance (p = 0.000, β = 0.321). The rate of explaining the effect of continuance commitment on performance through the organizational trust was found to be 19.1% (p<0.001). In this case, the H6 hypothesis developed as "continuance commitment positively affects performance through organizational trust" was accepted because it provides a partial mediation effect.

Table 7: The Effect of Continuance Commitment on Performance Through Organizational Trust

Regression	Independent Variable	Dependent Variable	β	T	P	R^2	F
1	Continuity Commitment	Task Performance	0,406	9,073	0,000	0,163	82,312***
2	Continuity Commitment	Organizational Trust	0,436	9,901	0,000	0,188	98,027***
3	Continuity Commitment	Task Performance	0,321	6,576	0,000	0,191	50,478***

The results of the mediation analysis in Table 8 show the effect of normative commitment on performance through organizational trust. In the first and second regressions in Table 9, it is seen that while the effect of normative commitment on performance (p = 0.062, β = 0.091) is not significant, it has a significant positive effect on organizational trust (p = 0.000, β = 0.163). Therefore, the H7 hypothesis, which was developed as "normative commitment affects performance positively through organizational trust", was not accepted.

Table 8: The Effect of Normative Commitment on Performance Through Organizational Trust

Regression	Independent Variable	Dependent Variable	β	T	P	R^2	F
1	Normative Commitment	Task Performance	0,091	1,871	0,062	0,006	3,500***
2	Normative Commitment	Organizational Trust	0,163	3,375	0,000	0,024	11,390***
3	Normative Commitment	Task Performance	0,328	7,008	0,000	0,109	26,505***
	Organizational Trust		0,038	0,807	0,420		

5. CONCLUSION AND IMPLICATIONS

Today, businesses see organizational commitment as a competitive advantage. It is stated that the employee will use all their resources (time, energy, emotion, etc.) in the organization to which he or she has the organizational commitment, in line with the goals of the organization (Rakhshanimehr and Jenaabadi, 2015). Businesses want their employees to be emotionally attached to the organization. Employees who are emotionally attached to the business increase the efficiency and productivity of the business and increase its performance. Trust is the head of all relationships and is not easily achieved. It is the same with emotional attachment. Those who are emotionally attached to the company have low turnover, proactive behaviors, organizational trust, job satisfaction, organizational citizenship, etc. They provide many positive outcomes. The task performance of the employees of the organization is directly related to the performance of the enterprise. Organizational performance cannot be increased without increasing employee performance. To increase employee and organizational performance, businesses should value their employees and ensure that they are emotionally attached to their organizations. Trust in the organization, manager, and colleagues positively affect emotional attachment. This study was conducted to reveal the mediating role of organizational trust in the effect of healthcare professionals on task performance.

In hypothesis 1 and hypothesis 2 of the research, it was observed that continuance commitment and normative commitment, which are sub-components of affective commitment, have a positive effect on organizational trust. This study (Cansoy and Polatcan, 2019); (Ferreira-Oliveira et al., 2020); (Tunali and Peker, 2020); (Güney and Turan, 2021) ; (Karakose and Bozgeyikli, 2012); (Çubukçu and Tarakçıoğlu, 2010); (Rahmani and Heydari, 2017); (Gellatly and Withey, 2012); (Mohamed, et al., 2012); (Altaş,2021); (Demir and İnandı, 2022). When organizational employees identify their individual goals with those of the organization, they become emotionally attached to the organization. The health sector is one of the most important sectors of the service sector, and when employees become attached to the organization and have confidence in the organization, they stay in the organization for a long time, increase their knowledge and experience, and the quality of service to patients.

Affective commitment is the type of commitment that most positively affects employee and organizational performance. In different studies on this subject, it has been concluded that organizational commitment affects employee performance (Al Zefeiti & Mohamad, 2017); (Atmojo, 2015); (Cesario and Chambel, 2017); (Joo and Bennett, 2018); (Nart Batur, 2013); (Yorlmaz and Karabacak, 2020) (Wahyuni, et al., 2014); (Akdemir et al., 2016); (Arsezen et al., 2015); (Ellinger et al., 2013); (Arshadi and Hayavi, 2013); (Ozdemir and Goren 2017); (Tekin, 2021); (Doğan ve Çelik, 2019); (Mumcu and Salepçioğlu, 2020). The research hypothesis of this study was that H3 continuance commitment had a positive effect on performance. This study (Uludag, 2018); (Tekin, 2021). Boz et al., 2021 revealed that continuance commitment has no positive effect on performance. Hypothesis 4 revealed that normative commitment did not affect performance. Uludag overlaps with his 2018 study, and Boz et al. do not overlap with his 2021 study. The job performance of the employees is one of the important determinants in achieving the targeted goals in terms of organizations. Perceptions, attitudes, and behaviors of employees are involved in revealing a high job performance. Therefore, businesses should remove the barriers between the business and the employee to increase the emotional commitment of employees. When the obstacles remain, the emotional commitment of the employees increases, and their performance increases.

With H5, it has been revealed that organizational trust has a positive effect on performance. Studies on organizational trust and affective organizational commitment show a positive relationship between employees' perceptions of organizational trust and their emotional organizational commitment. (Demirel, 2008); (Çubukçu and Tarakçıoğlu, 2010); (Rahmani and Heydari 2017); (Gellatly and Withey, 2012); (Taşkın and Dilek, 2010); (Mohamed, et al 2012) ; (Turhan et al., 2018). Many professionals work together in health institutions. To provide better service to the patient, he should trust the organization, the manager, and his colleagues. When organizational trust increases, sharing increases, and performance increases.

It has been accepted that the hypothesis of H6 continuance commitment positively affects performance through organizational trust providing a partial mediation effect. The H7 hypothesis shows that normative commitment does not have a mediating effect on performance through organizational trust. There is no mediation effect.

As in all other businesses, the barriers between the organization and the employees in the health business should be removed (Çekmecelioğlu and Pelenk, 2015). One of the results of this study is that health business managers who want to increase the work performance of the employees should get to know the employees well, value them, listen to their complaints and suggestions, encourage sharing and decisions, act fairly and equally, make social arrangements, provide fair wages and promotions to increase organizational commitment and organizational trust. This study examines the relationship between organizational commitment, emotional commitment, and task performance in the health sector. It is thought that it is important to carry out studies in other sectors and institutions as it will complement the studies done so far. The high relationship between these variables is important in terms of competition. If businesses want to be successful in terms of efficiency and economy, they should value organizational activities and make their strategic plans and resources for employees.

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Appendix 1: Exploratory Factor Analysis

No	Continuity Commitment	Normative Commitment	Organizational Trust	Task Performance
EC4	,845			
EC7	,843			
EC5	,839			
EC6	,835			
EC8	,825			
EC1	,753			
EC3		,911		
EC2		,882		
OT8			,924	
OT7			,917	
OT5			,914	
OT6			,907	
OT4			,904	
OT2			,896	
OT1			,874	
OT9			,858	
OT10			,857	
OT11			,822	
OT12			,805	
OT3			,753	
P8				,886
P4				,867
P9				,867
P7				,800
P3				,800
P2				,791
P5				,742
P1				,619
P6				,602

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization