

Attitudes of 3PL Providers of the Companies towards the Activities of Organizational Performance

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Abstract: Businesses today specialize in their core competencies and outsource their other operations due to the emerging perception of competition brought on by the large-scale similarity of production, the quick spread of technology and information systems, and the disappearance of international borders. One of the most common fields of outsourcing activity is Third Party Logistics (3PL) service, and the Organizational Performance elements of 3PL service providers are listed as Service Quality, Relationship Management and Organizational Effectiveness. This research aims to examine the Organizational Performance criteria of the 3PL providers serving the production enterprises and to evaluate the relationship structure between the mean and standard deviation values of the statements in the survey. The empirical results obtained from frequency, regression and standard deviation analyses show that Guanxi, Reliability, Assurance, and Trust positively affect Organizational Effectiveness. However, only Trust has a positive and statistically significant impact on Service Quality.

Keywords: 3PL; logistics management; organizational effectiveness; relationship management; service quality

1 INTRODUCTION

Today's businesses, which focus on gaining competitive advantage and increasing their existing competitive power, tend to take various steps to achieve these goals, collect their existing operational capabilities at a certain point and distribute their financial resources optimally [1]. Businesses today perform their operations outside their primary field of activity through outsourcing with an emphasis on their core activities, to produce their core activities with the mentality of the lowest cost and highest quality and deliver them to their customers appropriately [2]. Ref. [3] reported in their study that outsourcing would benefit the company in terms of speed and low cost; hence it was quickly recognized by the companies.

In the current market, where it is essential to achieve a competitive advantage, logistics services are one of the most common areas where businesses concentrate on their core functions and outsource other operations. With each passing day, it becomes increasingly apparent how important the supply chain is and how much logistics operations impact a company's success [4]. The world's borders have vanished due to globalization, and the various nations' legal arrangements, customs procedures, and other international trade regulations have sped up the development of 3PL by requiring businesses to partner with logistics service providers who are industry experts [5].

Today, it is crucial to properly manage the logistics procedures in the supply chain and deliver the items to the consumer satisfactorily, in addition to cutting costs [6]. As a result, it has been established that logistics operations involve knowledge, competence, experience, and managerial abilities and that the responsibility for carrying out these activities should be delegated to logistics service providers with expertise in that area [7]. These vendors are independent logistics companies that are best able to meet the requirements of businesses in their logistical operations. Therefore, it is essential to properly evaluate the advantages of outsourcing in terms of quality and costs [8].

In this context, there is a large and growing literature focuses on 3PL service providers and their performance. Ref. [9] examined how basic and advanced forms of outsourcing logistics affect the outsourcing management process (OMP). Findings showed that the usage of basic logistics outsourcing directly impacts price and delivery. On the other hand, advanced logistics outsourcing impacts performance through interactions with OMP. Focusing on the Iranian automotive sector, Ref. [10] drew attention to the importance and difficulties of developing strategic relations with 3PL service providers, classified the factors used in selecting 3PL service providers and concluded that the price factor is an indispensable condition. Ref. [11] investigated logistics service quality from the perspective of supply chain quality and explained the relationship between the seven dimensions of logistics service quality and high customer satisfaction. Ref. [12] examined the connection between outsourcing logistics and financial performance and discovered that doing so substantially increased time-based competitiveness, cost-based competitiveness, customer performance, and financial performance. Ref. [13] looked at the effect of relationship quality on supply chain performance in logistics outsourcing and stressed the significance of this factor as a selection criterion for 3PL service providers. Research on logistics outsourcing from a sustainable angle, Ref. [14] concluded that Japanese-style logistics management offers businesses outstanding performance in the economy, society, and the environment. Ref. [15] found that logistics digitalization strengthened customer cooperation and positively affected the financial and service performance of 3PL. Ref. [16] assessed the impact of logistics outsourcing on businesses' logistical performance and concluded that "collaboration and process characteristics" was the factor most strongly influencing logistics performance.

Studies in the pertinent literature suggest that "Service Quality," "Organizational Effectiveness," and "Relationship Management" structures make up organizational performance. The dimensions of these structures are, respectively, Tangibles, Reliability, Responsiveness,

Assurance, Empathy, Productivity, Customer Service, Reputation and Goodwill, Guanxi, Commitment, and Trust. On the other hand, studies on performance measurement of 3PL service providers mainly focus on the relationship between "Service Quality" or "Financial Performance" but do not consider the potential relationships between "Service Quality", "Relationship Management", and "Organisational Effectiveness" variables. When the literature was reviewed, it was observed that one study examined the "Service Quality", "Relationship Management", and "Organisational Effectiveness" activities of third-party logistics providers separately. Only Ref. [17] examined the analysis of these three variables using a structural equation model. Following the work of Ref. [17], the present study contributes to the existing literature by investigating the link between Service Quality, Relationship Management, and Organizational Effectiveness performances. Unlike Yuen's methodology, this study uses regression analysis and focuses on the enterprises providing 3PL services and production enterprises using 3PL in the Erzurum province of Turkey.

The rest of the paper is organized as follows: Section two explains the concepts of Service Quality, Relationship Management and Organizational Effectiveness. Section three introduces the research methodology and hypotheses and presents the empirical results. Section four concludes the research.

2 CONCEPTS OF SERVICE QUALITY, RELATIONSHIP MANAGEMENT AND ORGANIZATIONAL EFFECTIVENESS IN 3PL

Service quality, relationship management, and organizational effectiveness comprise the conceptual framework of 3PL organizational performance [17, 18]. The organizational performance model is displayed in Fig. 1.

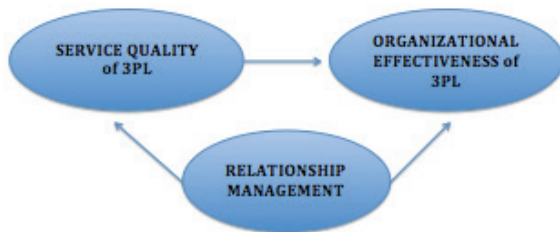


Figure 1 3PL Organizational Performance Model

2.1 Service Quality

Unlike the basic concept of quality, defined as the total of a good or service's attributes based on meeting consumer demands and expectations, service quality is focused on customer perception. Service quality is defined as a company's capacity to meet and exceed the expectations of customers [19]. Because service quality expectations vary from person to person, it is possible to quantify service quality by comparing expected performance to actual performance [20].

The SERVQUAL scale, created to measure service quality, was set up to quantify customer expectations and

consists of five aspects. Examples of tangibles include reliability, responsiveness, assurance, and empathy [21].

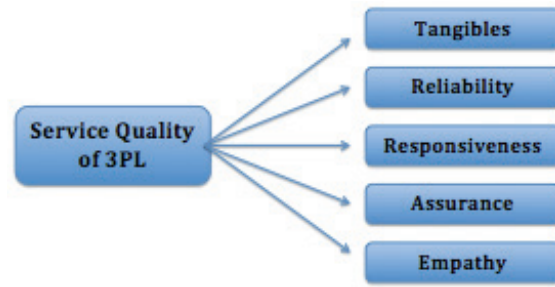


Figure 2 3PL Service Quality Dimensions

2.2 Relationship Management

Customers may now quickly acquire the information they desire, especially in light of technological advancements, which have significantly increased client demands and requests. Businesses can obtain a competitive edge and determine customer expectations by properly evaluating customer feedback.

Relationship Management is described as a process that includes all the steps between the business and the customer before and after the sale, aiming to provide mutual needs and benefits satisfaction. As this definition suggests, the area of interest of customer relations is not limited to the moment of the purchase but covers the pre-sales and post-sales periods [22]. For this reason, it is foreseen that the understanding of competition of the future will be carried out not through technology but through customer relations [23].

Guanxi refers to a particular type of relationship that includes social relations and obligations based on mutual interests and benefits. With Guanxi, competitive advantage can be gained by providing easy access to limited resources, and this exchange of favours among Guanxi members is a strictly non-commercial form of social investment [24, 25, 26, 27, 17].

The services offered to the customers along with the product are perceived as more significant than the product itself and play an essential role in retaining the existing customer. Dimensions of the concept of Relationship Management [28] are listed as follows:

- Guanxi
- Trust
- Commitment.

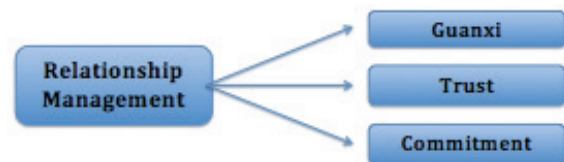


Figure 3 Relationship Management Dimensions

Due to intense competition across industries, the challenges of ensuring customer satisfaction and loyalty, and the barriers to building customer relationships, businesses need to focus on strategies to increase customer value [29].

2.3 Organizational Effectiveness

A good organizational structure provides Organizational Effectiveness for 3PL service providers, and all 3PL service providers have measurable performance goals. In his research, Ref. [17] assessed the organizational effectiveness measurement for 3PL service providers and companies that buy 3PL services using the dimensions of productivity, financial performance and market share, cycle time, customer service, and reputation and goodwill. It is noted that dimensions from numerous criteria frequently classified as behavioural, financial, operational, and structural are employed in organizational effectiveness measurements. The most frequently cited structural dimensions are flexibility, innovation, integration, and stability. In contrast, the most frequently cited financial dimensions are profitability, return on investment, assets, and earnings per share. The most frequently cited behavioural dimensions are job satisfaction, adaptability, turnover, and commitment. Organizational Effectiveness variable may vary depending on the type of business being examined, and different dimensions are used. In the measurement of Organizational Effectiveness, the financial perspective targets commercial organizations more while covering non-profit organizations less [30]. When the studies on the measurement of Organizational Effectiveness in the literature are examined, it has been determined that the most common dimensions of the Organizational Effectiveness variable are Productivity, Customer Service, and Reputation and Goodwill. All 3PL service providers have measurable performance goals. The relationship between 3PL service providers and supply chain partners is gathered under five dimensions, and these are listed as Productivity, Financial Performance and Market Share, Cycle Time, Customer Service, and Reputation and Goodwill [31, 32, 33, 34, 28, 35, 36].

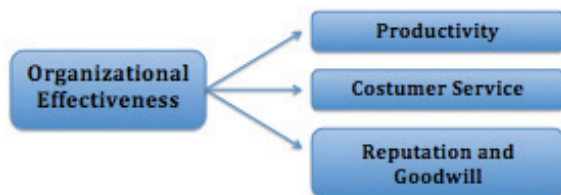


Figure 4 3PL Organizational Effectiveness Dimensions

Developing long-term relationships with supply chain partners of 3PL enables service providers to improve their financial performance and gain a competitive advantage. Collaborations also have other benefits for firms, including the ability to accommodate the shifting needs of customers, create a dynamic organizational structure, and increase market share [37].

Enhancing customer service is frequently mentioned as a critical objective. By using 3PL service providers, businesses may more easily deliver essential values for their clients while guaranteeing customer pleasure, one of their main priorities in today's cutthroat marketplace [37].

The concept of reputation and goodwill, interpreted as a whole of perceptions and contributions of internal and external stakeholders to the business, explains why consumers prefer certain goods or services and shows the

difference between success and failure. Reputation and goodwill, defined as the combination of all economic and non-economic characteristics of the enterprise, emerge as a result of the past activities of the enterprise and shape future expectations depending on the image [38].

3 RESEARCH METHODOLOGY OF THE ANALYSIS PURPOSE OF THE RESEARCH

This research aims to explain the relations between the organisational performance activities of enterprises providing 3PL services in Erzurum and production enterprises using 3PL. In order to carry out this study, the contact information of the production enterprises having received a capacity report in Erzurum was obtained from the Erzurum Chamber of Commerce and Industry (ECCI). A logistics department official from each of these 35 businesses was contacted by phone for an interview and applied a questionnaire after 31 of them indicated they would support the project. Ref. [39, 40] gave the minimum sample size required for the number of alternatives and independent variables in multivariate linear regression analysis. Therefore, the sample size in the study is sufficient.

3.1 Research Method

In the questionnaire, the study used the SERVQUAL scale developed by Parasuraman, Zeithaml and Berry [21, 41, 42] for Service Quality. In addition, for Relationship Management and Organizational Effectiveness, the study benefited from Ref. [28]'s study titled "Performance Measurement and Management of Third-Party Logistics: An Organizational Theory Approach".

3.2 Research Model and Hypotheses



Figure 5 Research Model

The hypotheses regarding the research are as follows:
H1: Service Quality of 3PL service providers affects Organizational Effectiveness.

H1a: The development of the tangibles of 3PL service providers positively affects Organizational Effectiveness.

H1b: The reliability of 3PL service providers positively affects Organizational Effectiveness.

H1c: The responsiveness of 3PL service providers to respond to needs positively affects Organizational Effectiveness.

H1d: Assurance on 3PL service providers positively influences Organizational Effectiveness.

H1e: The empathy ability of 3PL service providers positively affects Organizational Effectiveness.

H2: Relationship Management of 3PL service providers affects Organizational Effectiveness.

H2a: The Guanxi of 3PL service providers positively affect Organizational Effectiveness.

H2b: Trust in 3PL service providers positively affects Organizational Effectiveness.

H2c: Commitment by 3PL service providers positively affects Organizational Effectiveness.

H3: Relationship Management of 3PL service providers affects Service Quality.

H3a: Guanxi of 3PL service providers positively affects Service Quality

H3b: Trust in 3PL service providers positively affects Service Quality.

H3c: Commitment by 3PL service providers positively affects Service Quality.

3.3 Evaluation of the Research Findings

In this section, the study tests the above hypotheses using frequency, reliability, mean & standard deviation, and regression analyses and interprets the results.

3.3.1 Demographic Characteristics of Respondents

The study analyses the demographic characteristics of the respondents working in the logistics unit manager position of the sample companies by employing frequency analysis. The results are shown in Tab. 1.

Table 1 Demographic Characteristics of Participants

	N	%
GENDER		
Woman	6	19,40
Man	25	80,60
AGE		
20-30	8	25,81
31-40	15	48,39
41-50	6	19,35
50 and over	2	6,45
Total	31	100

When the information obtained regarding the logistics unit managers of the companies forming the sample is evaluated, it is determined that the majority of the respondents were men with 80.6 %, and the majority of the respondents, with a value of approximately 48 %, were between the ages of 31-40.

3.3.2 General Profiles of the Companies Participating in the Research

Tab. 2 indicates the values from the surveys applied to enterprises regarding information on the type of company,

the industry in which they operate, the duration of activity in the sector and the number of employees.

When the company types of the enterprises forming the sample are examined, it is determined that approximately 68% are limited liability companies, and 32 % are joint stock companies.

When the enterprises are evaluated in terms of the industry in which they operate, it is seen that the largest part of the enterprises forming the sample operates in the food sector, with 35.5 %, 22.6 % in the construction sector and 19.4 % in the metal sector.

Approximately 42 %, 32 %, 20 %, and 6 % of these companies have been operating for more than 25 years, 6–15 years, 16–25 years, and 1–5 years, respectively. In addition, approximately 52 % of these companies are 26-50 employees, while 29 % have 1-25.

Table 2 General Profile of Businesses

	N	%
Company Type		
Incorporated Company	10	32,26
Limited Company	21	67,74
Total	31	100
Industry		
Food	11	35,48
Construction	7	22,58
Metal	6	19,35
Furniture	2	6,45
Mining	1	3,23
Chemical	1	3,23
Air Conditioning	1	3,23
Recycling	1	3,23
Packaging	1	3,23
Total	31	100
Operating Time (Year)		
1-5	2	6,45
6-15	10	32,26
16-25	6	19,35
26 and Over	13	41,94
Total	31	100
Number of Employees		
1-25 People	9	29,03
26-50 People	16	51,61
51-100 People	4	12,90
100 and Over	2	6,45
Total	31	100

3.3.3 Reliability Analysis

Reliability analysis is concerned with the consistency of measurement and is indicative of the frequency with which repeated measurements achieve the same results. In the study, the mean value of each dimension was first calculated, then subjected to a reliability test. The Cronbach Alpha coefficient was calculated to calculate the reliability value of the dimensions in the study. The results are given in Tab. 3.

Cronbach Alpha coefficient exhibits a distribution between 0 and 1 and is interpreted as follows:

- 0.00 < α < 0.20 (Less Reliable)
- 0.20 < α < 0.40 (Rather Reliable)
- 0.40 < α < 0.60 (Quite Reliable)
- 0.60 < α < 0.80 (Reliable)
- 0.80 < α < 1.00 (Highly Reliable).

Table 3 Reliability Analysis Table

	Variable	Cronbach Alpha
Service Quality	Tangibles	0,83
	Reliability	0,92
	Responsiveness	0,93
	Assurance	0,85
	Empathy	0,93
Relationship Management	Guanxi	0,78
	Trust	0,97
	Commitment	0,93
Organizational Effectiveness	Productivity	0,91
	Customer Service	0,95
	Reputation and Goodwill	0,93

When the reliability scores in Tab. 3 have been examined, it is determined that the guanxi dimension of the Relationship Management variable is reliable. In contrast, the reliability levels of all other dimensions are highly reliable.

3.3.4 Standard Deviation & Mean Values

The mean and standard deviation values of the questions in the questionnaire applied within the scope of the study are given in detail in this section.

Table 4 Standard Deviation and Mean Values (Service Quality)

	N	Mean Values	Std. Errors
Service Quality	Tangibles		
	Has "up to date" equipment	3,74	1,13
	Has useful facilities	3,45	1,12
	Has presentable (neatly dressed) employees	2,87	1,34
	Has literature on available services	3,48	1,48
	Reliability		
	Fulfils promises	3,74	1,29
	Express sincerity in problem-solving	3,65	1,31
	Provides efficient and consistent service	3,65	1,31
	Is punctual with service commitments	3,74	1,29
	Provides error-free service (target) assistance	3,55	1,03
	Responsiveness		
	Provides consistent punctual service	3,52	1,24
	Provides prompt service	3,52	1,24
	Expresses a consistent willingness to help	3,71	1,30
	Is responsive to requests	3,71	1,30
	Assurance		
	Engenders corporate confidence	3,77	1,09
	Provides transaction security (e.g., ensures minimal loss)	3,52	1,48
	Is consistently courteous	3,68	1,28
	Displays knowledge during inquiries	3,48	1,48
	Empathy		
	Provides tailor-made customer service	3,52	1,36
	Has convenient office hours	3,52	1,36
	Is perceptive of customer needs and problems	3,71	1,13
	Has customer's interest at heart	3,45	1,23
	Is understanding of specific needs	3,52	1,36

For Service Quality variable, it is seen that the judgment with the highest mean value is the statement "Engenders corporate confidence" belonging to the Assurance dimension with 3.77 points. Average values of service quality show that respondents care about meeting their needs and seek to obtain institutional trust. In addition, respondents are not interested in having a presentable appearance of the staff.

Table 5 Standard Deviation and Mean Values (Relation Management)

	N	Mean Values	Std. Errors
Relationship Management	Guanxi		
	Initiates inter-organizational relationships	3,45	1,23
	Possesses efficient managerial skills	3,61	1,02
	Values good working relationships	3,90	1,08
	Has a key representative who is accessible	4,13	1,02
	Has a key representative who socializes with customers	3,77	1,26
	Trust		
	Adheres to a principle of complete trust	3,90	1,11
	Is accessible during service problems	4,23	0,92
	Expresses confidence in customers	3,90	1,17
	Is attentive and makes inquiries	3,42	1,12
	Communicates with sincerity	3,84	1,10
	Honours service commitments	3,94	0,96
	Provides consistent service	3,81	0,98
	Provides quality service	3,65	0,99
	Commitment		
	Adheres to a moral social principle	3,94	0,96
	Adheres to a principle of ethical service	3,94	1,06
	Adheres to a service principle of respect and acceptance	3,97	0,95
	Demonstrates commitment	3,90	1,01
	Demonstrates a willingness to honour commitments	3,90	1,01
	Provides optimal attentiveness	3,61	1,09
	Demonstrates loyalty	3,94	1,03
	Is patient	3,77	1,23

Table 6 Standard Deviation and Mean Values (Organizational Effectiveness)

	N	Mean Values	Std. Errors
Organization Effectiveness	Productivity		
	Minimizes service failure probabilities	3,52	0,26
	Provides business operational consultancy service	3,48	0,48
	Provides competition enhancement service	3,35	0,05
	Provides quality efficient service	3,65	0,99
	Provides a high order rate service	4,06	0,85
	Provides efficient and reliable transportation service	3,94	0,00
	Maintains a high level of productivity	3,65	0,99
	Customer Service		
	Is responsive to purchase decision making	3,71	1,30
	Provides good after-sales services	3,65	1,23
	Responds efficiently and quickly to needs	3,48	1,12
	Provides a punctual delivery service	3,52	1,18
	Welcomes feedback or comments	3,23	1,28
	Provides a precise quantity service	3,32	1,19
	Provides a highly satisfactory service	3,45	0,89
	Responds quickly to changes	3,32	1,19
	Is responsive to specific requirements	3,42	1,31
	Is flexible and adaptable to changes	3,32	1,19
	Employs value-added logistics services	3,26	1,26
	Provides an abnormally high value-added service	3,26	1,26
	Has few complaints	3,97	1,02
	Reputation and Goodwill		
	Engenders a positive or favourable image	3,77	1,09
	Correlates expertise with strategic missions	4,13	0,96
	Is reputable within the logistics industry	3,77	1,09
	Has relevant experience	4,13	0,96
Has a good track record in customer service	3,77	1,06	

When the Relationship Management variable is examined, it is observed that the judgment with the highest mean value is the statement "Is accessible during service problems?" belonging to the Trust dimension with 4.23 points. It is also worth mentioning that the second highest scoring statement is "He has a key representative", with a

score of 4.13. The mean values of the two highest-scoring expressions are very close to each other. In light of these results, it can be argued that 3PL companies are expected to have accessible and authorized personnel in case of a possible issue.

Tab. 6 shows that the judgments with the highest mean values for the Organizational Effectiveness variable belong to the Reputation and Goodwill dimension. These are "Correlates expertise with strategic missions" and "Has relevant experience", with a score of 4.13. When these results are examined, it is understood that; the respondents give importance to 3PL providers to have experience in line with their strategic goals and to be experts in their fields.

Judgments with the lowest mean value for Service Quality, Relationship Management and Organizational Effectiveness variables, respectively; "Has presentable (neatly dressed) employees" with a score of 2.87, "Is attentive and makes inquiries" with a score of 3.42, and "Welcomes feedback or comments" with a score of 3.23.

Overall, it has been determined that survey questions are generally in the 3-4 score range, and the average score of the statement "Is accessible during service problems?" belonging to the "Trust" dimension is the highest value with 4.23 points.

3.3.5 Regression Analyses

Before performing the Regression Analysis, the mean values of the dimensions that make up the Organizational Effectiveness, Service Quality and Relationship Management variables were calculated, mean values were obtained for the variables, and these values were used in the analyses.

3.3.6 Dimensions of Service Quality Variable – Organizational Effectiveness

This section explores the regression relationship between the dimensions of the Service Quality variable and the Organizational Effectiveness variable.

Table 7 Summary of the Model

R	R ²	Adjusted R ²	Standard Error of Estimation
0,94	0,88	0,87	0,30

The values related to the goodness of fit criteria obtained from the analysis results are given in Tab. 7. Accordingly, 88% of the change in the dependent variable is explained by the independent variables included in the model.

Table 8 Model Significance Test

Model	F	Sig.
	103,67	0,00

Considering the results of the model integrity significance test, the null hypothesis referring that "the parameters are equal to zero and the model as a whole is insignificant" has been rejected at the 1 % significance level ($F = 103,668; p = 0.000$).

According to the values in Tab. 9, reliability and assurance, which are dimensions of Service Quality, have statistically significant and positive impacts on Organizational Effectiveness as the p-values for these variables are lower than 0.05.

Table 9 Regression Analysis Table

Independent Variable	Organizational Effectiveness			Result
	B	t	Sig.	
Fixed Term	0,81	3,84	0,00	
Tangibles	(-)0,17	(-)0,99	0,33	Reject
Reliability	0,28	4,43	0,00	Accept
Responsiveness	0,08	0,76	0,45	Reject
Assurance	0,51	8,40	0,00	Accept
Empathy	0,06	0,54	0,60	Reject

When the relationship between the dimensions of Service Quality and Organizational Effectiveness variable is examined, it is found that hypotheses H1b (reliability of 3PL service providers positively affect Organizational Effectiveness) and H1d (assurance in 3PL service providers positively affect Organizational Effectiveness) were approved. Yet, hypotheses H1a, H1c, and H1e were rejected.

As a result, the coefficients of the reliability and assurance dimensions (respectively) have been determined as 0.277 and 0.514. A 1-point increase in the reliability dimension causes an increase of 0.277 points in the Organizational Effectiveness variable. In comparison, a 1-point increase in the Assurance dimension causes an increase of 0.514 points in the Organizational Effectiveness variable.

Furthermore, a positive relationship exists between the Service Quality of 3PL service providers and Organizational Effectiveness. Considering the multiple regression results between the Organizational Effectiveness variable and the dimensions of Service Quality, it has been determined that assurance and reliability positively affect the Organizational Effectiveness variable, and there is no statistically significant relationship between the other dimensions and Organizational Effectiveness.

3.3.7 Dimensions of the Relationship Management Variable – Organizational Effectiveness

This section examines the regression relationship between the dimensions of Relationship Management and Organizational Effectiveness.

Table 10 Summary of the Model

R	R ²	Adjusted R ²	Standard Error of Estimation
0,94	0,88	0,87	0,31

The values related to the goodness of fit criteria obtained from the analysis results are given in Tab. 10. Accordingly, approximately 88 % of the change in the dependent variable is explained by the independent variables included in the model.

Table 11 Model Significance Test

Model	F	Sig.
	99,22	0,00

Considering the results of the model integrity significance test, the null hypothesis that "the parameters are equal to zero and the model as a whole is insignificant" is rejected at the 1 % significance level.

Table 12 Regression Analysis Table

Independent Variable	Organizational Effectiveness			Result
	B	t	Sig.	
Fixed Term	0,12	0,47	0,64	
Guanxi	0,48	2,56	0,02	Accept
Trust	0,45	2,62	0,01	Accept
Commitment	0,18	0,97	0,34	Reject

As is shown in Tab. 12, change in the Organizational Effectiveness dependent variable could be explained by Guanxi and Trust ($t = 2.563, p < 0.005$ and $t = 2.624, p < 0.005$, respectively). The results depict that there is a positive relationship between Guanxi and Trust dimensions and Organizational Effectiveness. Therefore, H2a (3PL service providers' Guanxi ability positively affects Organizational Effectiveness.) and H2b (trust in 3PL service providers affects Organizational Effectiveness positively.) hypotheses have been accepted. However, H2c (3PL service providers' fulfilment of their commitments positively affect Organizational Effectiveness.) hypothesis is rejected.

The coefficient of Guanxi is determined as 0.482. A 1-point increase in the average score of the Guanxi dimension is associated with a 0.482 increase in the average score of the Organizational Efficiency variable. Additionally, the coefficient trust dimension is determined as 0.449, meaning that a 1-point increase in the trust dimension leads to a 0.449-point rise in the Organizational Effectiveness variable.

In general, it has been determined that Relationship Management performance has a positive effect on Organizational Effectiveness. At the same time, it is seen that the Guanxi and Trust dimensions of the Relationship Management variable affect Organizational Effectiveness performance positively. However, the same is not the case between the Commitment dimension and Organizational Effectiveness.

3.3.8 Dimensions of the Relationship Management Variable – Service Quality

In this section, the regression relationship between the dimensions of Relationship Management and Service Quality variable is examined.

As shown in Tab. 15, a positive relationship is found between the Trust dimension of the Relationship Management variable and the Service Quality ($t = 9,636, p < 0.005$). Hence, the H3b (Trust in 3PL service providers positively affects Service Quality) hypothesis is accepted, while hypotheses H3a and H3c are rejected. More specifically, A 1-point increase in the average score of Trust leads to a 0.935-point increase in the average score of the Service Quality variable.

Table 13 Summary of the Model

R	R ²	Adjusted R ²	Standard Error of Estimation
0,87	0,76	0,75	0,48

The values related to the goodness of fit criteria obtained from the analysis results are given in Tab. 13. Accordingly, approximately 76 % of the change in the dependent variable is explained by the independent variables included in the model.

Table 14 Model Significance Test

Model	F	Sig.
	92,85	0,00

Considering the results of the model integrity significance test, the null hypothesis that "parameters are equal to zero and the model as a whole is insignificant" has been rejected at a 1 % significance level, and it has been concluded that the model as a whole is significant ($F = 92.850; p = 0.000$). Moreover, the results shown in Tab.15 reveal that only the Trust dimension of Relationship Management has a positive and statistically significant impact on the Service Quality variable.

Table 15 Regression Analysis Results

Independent Variable	Service Quality			Result
	B	t	Sig.	
Fixed Term	(-)0,05	(-)0,13	0,90	
Guanxi	0,29	1,17	0,25	Reject
Trust	0,94	9,64	0,00	Accept
Commitment	0,16	0,62	0,54	Reject

Fig. 6 shows the overall outcomes of the regression analysis, and the arrows represent positive and statistically significant effects.

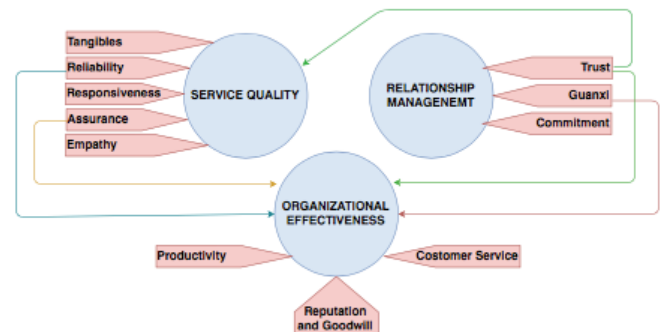


Figure 6 Regression Analysis Results

4 CONCLUSIONS AND SUGGESTIONS

This study investigates the link between Service Quality, Relationship Management, and Organizational Effectiveness, which are the elements of Organizational Performance. The study focuses on the enterprises providing 3PL services in the Erzurum province of Turkey. The results from the regression analysis indicate that there is a positive association between the variables in question. However, when the multiple regression relationships between the variables and dimensions of these variables are examined, the dimensions do not show a relationship as a whole in the model.

It has been determined that the dimensions of the Service Quality and the Organizational Effectiveness variable

positively affect the dimensions of assurance and reliability. There is no such relationship between the other dimensions and Organizational Effectiveness. Based on these findings, knowledgeable, courteous, and reassuring service understanding [41] and dependably and fulfilling service agreements [41, 43] are signs of excellent service quality. These traits are crucial for boosting organizational effectiveness and achieving objectives.

There is a positive link between Guanxi and Trust dimensions of the Relationship Management variable and Organizational Effectiveness. However, the same is not the case between the Commitment dimension and Organizational Effectiveness. Therefore, with the good establishment of the Guanxi and Trust relationship, the idea of mutual cooperation between 3PL providers and their customers is reinforced, and it can be said that they play a critical role in enhancing institutional efficiency [17].

When the association between the dimensions of Relationship Management and the Service Quality variable are examined, it is seen that only the Trust dimension has a positive impact on Service Quality. It follows that the higher the level of service quality, the more trust there is between 3PL firms and their clients.

The statements with the highest mean values for each variable in the questionnaire belong to the Assurance, Trust, Reputation and Goodwill dimensions. Also, almost all statements' mean values range between 3 and 4. These results are similar to the results obtained from the regression analysis.

This study not only explores the relationships between organizational performance elements of 3PL companies but also provides useful information for these companies to adopt organizational performance indicators and seize opportunities for improvement. In this context, the following actions should be taken into account by 3PL organizations to enhance their organizational performance.

- They should give confidence, keep their promises, be willing to provide error-free service assistance and solve problems.
- They must build organizational confidence, guarantee transaction security (for example, ensuring low losses), and constantly be polite to their clients.
- They should initiate relationships between organizations, possess effective management abilities, prioritize strong working relationships, and have a key representative who interacts with clients.
- They should be available during service problems, communicate sincerely, and provide consistent and quality service.

The main limitation of this study is that the sample size is small, and the 3PL service providers have similar characteristics to each other. For example, 3PL providers with similar tangible assets cause low customer expectations. Therefore, the company that receives 3PL services is unaware of companies with better tangible assets and may miss the advantages it will provide. In this respect, studies that will be carried out using a larger sample group may provide additional contributions to the literature.

Notice

This study is derived from İbrahim Kadir Demir's master thesis titled "Firmaların 3PL Hizmet Sağlayıcılarının Kurumsal Etkinlik, Hizmet Kalitesi Ve İlişki Yönetimi Aktivitelerine Yönelik Tutumları" conducted under the supervision of Associate Professor Dr. Dilşad Güzel.

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