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**THE IMPACT OF LOGISTICS SERVICE QUALITY ON CUSTOMER LOYALTY IN EGYPTIAN RESORTS: CUSTOMER SATISFACTION AS A MEDIATOR**

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**ABSTRACT**

*This study aims to investigate whether customers' satisfaction mediates the impact of logistics service quality LSQ on customers' loyalty in Egyptian resorts. Data was gathered from 437 guests to Egyptian resorts using a questionnaire developed by the LSQ scale to assess several aspects of logistical service quality. The findings indicate a positive relationship between all aspects of logistics service quality, customer satisfaction, and customer loyalty. Similar to how the level of customer loyalty is not significantly impacted by the quality of relational logistics services, meanwhile, operational logistics quality and communication do, however. In order to increase customer loyalty, the study recommends Egyptian resorts to concentrate on the communication aspects of logistics service quality.*

**KEYWORDS:** Logistics Services, Service Quality, Customer Satisfaction  
Customer Loyalty, Egyptian Resorts.

**INTRODUCTION**

The probability of returning to the same hotel is strongly correlated with customer satisfaction levels overall; therefore the long-term relationship between customers and the hotel organizations is gradually gaining importance (Desalegn, 2016; Querin and Göbl, 2017). Since, it is more expensive to acquire new customers than to keep existing ones, hotel organizations focus on keeping current customers and figuring out strategies to strengthen their loyalty to the establishment (Bhuiyan, 2021).

Resorts in the hospitality sector can no longer retain customers by offering a wide range of tangible products. They have greater responsibility to

differentiate their offerings through the provision of complementary services and products to maintain enduring customer relationships (Khan *et al.*, 2017). Due of customers' growing demands to do things their way and when they want, resorts are required to consistently satisfy their needs. Therefore, it is crucial for resort managements to comprehend how the quality of the logistics services (i.e., the organization's capacity to carry out fulfillment services accurately, to provide customer desires that are sympathetic and knowledgeable to customers' requirements) can distinguish between similar services and physical products. By doing this, resorts can attract guests and satisfy their needs, helping them develop lasting relationships with them and win their loyalty in the long run (Nunkoo *et al.*, 2020).

### **RESEARCH PROBLEM**

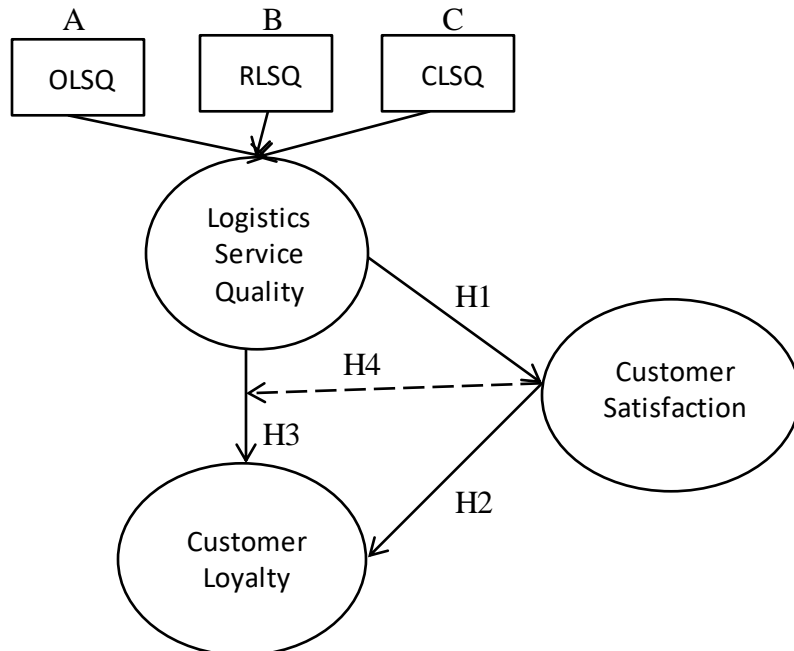
Many studies have considered SERVQUAL dimensions as internal driver to customers and customer satisfaction as a consequence that affect customer loyalty (Mohamad, 2017; Nikou and Khiabani, 2020; Gopi and Samat, 2020). Traditionally, the studies of logistics have been focused upon operational subjects such as inventory management and operation cycle level (Chaniago and Mudjiardjo, 2021; Masudin, 2022). Recently researchers have realized that customers' requirements are a significant element of service beside traditional aspects of logistics (Restuputri and Indriani, 2021; Vasi *et al.*, 2021). According to Hua and Jing (2015), the most significant challenge for hotel organizations to promote customers' loyalty is to build logistics service quality by focusing on the customer feedback. Few studies have investigated the logistics service quality LSQ and its impact on customer satisfaction and loyalty in the hotel industry, despite the fact that many studies have demonstrated that service quality has a positive association with customers' satisfaction in hotel sector (Markovic and Jankovic, 2013; Nikou and Khiabani, 2020; Gopi and Samat, 2020).

### **RESEARCH AIM**

The research intends to determine the effects of logistics service quality aspects on customer satisfaction and loyalty, including operational logistics service quality OLSQ, relational logistics service quality RLSQ, and communication logistics service quality CLSQ. Finding out whether LSQ dimensions have a significant impact on customer satisfaction which indirectly impact on customer loyalty.

## RESEARCH FRAMEWORK

The research model clarifies the relationships between several aspects of logistics service quality (LSQ) and customer satisfaction and loyalty. The study proposes the following theoretical framework and research hypotheses as shown in Figure 1.



**Figure 1: Theoretical Framework and Research Hypotheses**

Note: OLSQ= Operational logistics service quality, RLSQ= Relational logistics service quality, CLSQ= Communication logistics service quality

## LITERATURE REVIEW

### LOGISTICS SERVICE QUALITY IN THE HOTEL INDUSTRY

Quality is the customer's perception of product and service excellence (Hoe and Mansori, 2018). Combining services with quality means conformance to specifications, as well as the adequacy of the service for use (Pheng and Rui, 2016). Service quality is basically dependent on five dimensions, which are (a) tangibles *i.e.* physical facilities, equipments, and the personnel appearance; (b) reliability *i.e.* the company's ability of performing the provided service in a precise way; (c) responsiveness *i.e.* the company's eagerness in helping customers and providing the best service (Eshetie *et al.*, 2016); (d) assurance *i.e.* employees' ability to inspire

trust depending on competence, credibility and security; and (e) empathy through providing a personalized attention to customers through communication, understanding, and access to them (Farooq and Salam, 2018). Therefore, providing high-quality services to customers is a key issue for service establishments to build customers' loyalty, create a sustainable competitive advantage, and achieve their profitability and survival (Elvira and Shpetim, 2016). In order to measure the intangible quality of services, the term Perceived Service Quality has been coined. It is the result of comparisons that customers make between their expectations and their perception of the provided service (Hashem and Ali, 2019).

The evaluation process of service quality has developed over the years (Al Ababneh, 2019). It relied on three dimensions, which are technical quality, functional quality, and image. The image dimension identifies two basic concepts, which are what service organization provides to customers *i.e.* services, and how these services are provided. Hence, the SERVQUAL scale was designed to measure customers' expectation about the establishment and their perception of its service provided. This scale relied on a set of dimensions *e.g.* loyalty, responsiveness, competency, access, courtesy, communication, credibility, security, understanding, and tangibles (Pakurár *et al.*, 2019). For a better understanding of the perceived service quality and customer satisfaction, other attributes have been developed *e.g.* convenience in making an appointment, friendliness of the staff, the existence of advisors providing accurate information, advisors listening to queries, advisors helping in long term planning, advisors helping to choose the right courses for career, advisors interested in personal life, and finally comes the professionalism in work (Masrul, 2019; Fida *et al.* 2020).

Many researchers have followed the scale suggested by Parasuraman *et al.* (1988) to measure LSQ. Saura *et al.*, (2008) and Krishnamoorthy and Sandrajaya (2022) established nine LSQ measures, including order release quantities related to product availability, information quality measured by customers perception of the information provided by hotels regarding products or services that customers may use, order accuracy, or how closely orders adhere to customers' orders after they arrive, and the efficiency and effectiveness of the procedure followed in providing the service by hotels, order condition, which was related to order damages, order discrepancy handling, which was measured by how well order addresses differed once the order was received Order quality is determined by how well the hotel's services match the customer's needs and expectations, personnel contact quality is defined as the customer orientation of the hotel's logistics communication

employees, and timeliness is determined by whether the order arrives at the customer's location on time.

## **CUSTOMER SATISFACTION AND LOYALTY**

Customers consider significant stakeholders for any organization, and management places a high value on customers' satisfaction to preserve profitability and sustainability. This has made customer satisfaction a topic of great interest for businesses and studies. To deliver good service quality and sustain customers' satisfaction is one of the largest current difficulties facing the management in any organization, including the hotel establishments (Desalegn, 2016). In order to increase sales and raise profits, the hotel management considers customer satisfaction to be a key strategy (Taha, 2019).

By assessing customer satisfaction, organizations can evaluate the effectiveness of their current management strategies and highlight areas for development. Customer satisfaction measurement is crucial for businesses because it enables them to evaluate if their customers are satisfied or dissatisfied and provides insight into how to make them satisfied in order to foster long-term loyalty (Minh *et al.*, 2015). Similarly, according to Rajendran *et al.* (2018), to increase customer retention rates, increase market share, and boost profits, organizations measure and manage customers' satisfaction. Marketing managers in hotel organizations may create and deliver relevant offers that meet market demand by having a better understanding of the aspects that affect customers' satisfaction. Customer satisfaction has frequently been cited as the primary factor in determining loyalty (Flores *et al.*, 2020). Customers can assist management in determining which service areas most require improvement by participating in surveys of customer satisfaction (Ismail and Yunan, 2016; Nunkoo *et al.*, 2020).

Understanding the factors that influence repurchases behavior will enable management to improve the specific aspects of customer happiness and services that have a strong correlation with repurchase to foster loyalty (Rashid, 2015). Loyal customers serve as a reliable source of income and information channels that connect networks of friends, family, and other potential clients to the business (Iqbal, 2018). According to Mohamad (2017), another significant advantage of loyal customers is that they might be less price sensitive than non-loyal customers. Businesses, particularly those in the hotel industry, have come to realize how crucial customer retention is to their overall success. It is well known that repeat customers visit more frequently and spend more money than unreliable ones (Myo *et al.*, 2019).

Saura *et al.* (2008) measured customer loyalty in service industry by three major dimensions, which are: attitudinal, cognitive, and behavioral loyalty. Saleem and Raja (2014) further clarified that attitudinal loyalty involves many attributes such as complaining behavior, word of mouth (WOM), and buying intentions. Behavioral loyalty has been described as price elasticity, brand allegiance, revisit, or repurchasing (Hashem and Ali, 2019). Similarity, preference for service businesses and the conviction that these organizations provide the best offer and best meet customers' demands are examples of cognitive dimensions (Restuputri and Indriani, 2021).

### **RELATIONSHIP BETWEEN LSQ, CUSTOMER SATISFACTION AND LOYALTY**

According to Micu *et al.* (2012), operational performance in terms of services has a considerable positive relationship with customers' satisfaction. However, Chaniago and Mudjiardjo (2021) found that customers view operational performance as an "order qualifier" rather than a differentiator and reached the conclusion that operational performance had no positive link with customers' satisfaction. Markovic and Jankovic (2013) discovered the impact of reliability and customers' satisfaction. After assurance, reliability emerged as the second vital element of service quality to affect customers' satisfaction (Eshetie *et al.*, 2016).

Micu *et al.* (2012) concluded that relational service dimensions are the most main attribute of customers' satisfaction. Also, Murad and Ali (2015) argued that managerial support has a positive correlation between relational performance and customers' satisfaction. In addition, Adebayo (2017) noted that Customer pleasure and responsiveness are related, although not significantly. They further find that while it is not a must, being responsive is necessary for delivering exceptional service.

Rashid (2015) thought that customers' loyalty is a consequence of their satisfaction. According to Al-Tit (2015), customers' satisfaction significantly affects a hotel's reputation and customer retention. Although Fida *et al.* (2020) noted that customers' satisfaction is not a crucial component of their loyalty, but it is uncommon to consider loyalty development without customers' satisfaction. Service quality has a high and favorable association with loyalty and readiness to pay, as claimed by Oey *et al.* (2020). Similarly, Bhuian (2021) also claimed that service quality in hotels positively affects the loyalty of guests.

Logistics service quality has a very significant role in achieving customer satisfaction and loyalty. Customer loyalty has been shown to be positively correlated with operational logistics performance. In this study, reliability which is also comparable to operational logistics service is discovered to have a favorable and considerable influence on customer loyalty (Desalegn, 2016; Querin and Göbl, 2017; Masudin *et al.*, 2022).

Although responsiveness and the quality of relational logistics services have a positive relationship, customer loyalty is not affected (Taha, 2019). Similar to this, giving customers the appropriate information at the right moment is crucial to increasing their value and loyalty over time. To increase the customer's loyalty, the service provider should communicate with them, provide personalized service, and make them feel comfortable (Vasi *et al.*, 2021).

## METHODOLOGY

### DATA COLLECTION TOOL

To assess several aspects of logistics service quality, a questionnaire based on the LSQ scale has been designed. However, it also includes additional dimensions for this study, such as communication, that have been included. The LSQ scale and the SERVQUAL scale both aim to measure the same underlying factors, reliability and responsiveness. A questionnaire is also created to assess how customers think about the LSQ dimensions that offered by the resorts. A questionnaire that comprises eight single items and measures customer satisfaction overall was also developed to determine their degree of satisfaction. The behavioral and attitudinal approach that is suggested by the majority of researchers studies the basis of the questionnaire used to measure customer loyalty. One questionnaire was designed, distributed, and directed to 500 guests of Egyptian resorts with 437 forms (87.4%) valid to analyze. The research used a 5-point Likert scale. The research adopted internal consistency and validity to ensure the data collection instrument reliability and validity. Through this method, each research objective was matched with its question.

### SAMPLING FRAME

The SAMPLE equation was applied to an unlimited society (Thompson, 2012) as follows:

$$N1 = \frac{3.84}{0.0025} * 0.25 = 384$$

**Note:** P: Percentage of the purpose of this study 0.50, d: Percentage of the error limit allowed 0.05, Z: The standard degree used for giving general results is 95%. Thus, the standard degree = 1.96

According to the previous sample size equation the lower limit of respondents, that suitable in this study are 384. A number of 500 questionnaires were distributed randomly by electronic from January 2022 to June 2022 and only 437 questionnaires (87.4%) were valid to analyze. The respondents were asked to answer these statements by using a Five-point Likert-type scale from 1= strongly disagree to 5= strongly agree. .

The Statistical Package for the Social Sciences (SPSS) version 27.0 was used to analyze the collected data.

**VALIDITY AND RELIABILITY OF THE SURVEY INSTRUMENT**

The questionnaire was initially pre-tested for its validity with some guests in investigated resorts. Spearman correlation test was used to determine the internal consistency for all statements and ensure that it valid to analyze. The results in Table (1) showed that there is positive significant correlation with 0.05 degree between questionnaire statements, which correlation degree was with 0.69.

**Table (1) internal consistency for the questionnaire investigated**

Number of statements	Corr.	P. Value
29	0.69	0.003*

\*significant at 0.05 or less

The Cronbach Alpha reliability was computed and the tests showed that the reliability coefficients for all the instruments were above 0.70, which indicates that the instrument is reliable for being used (Taber, 2018). For this study, questionnaire Cronbach alpha for all variables survey instruments presented in table (2) as follows

**Table (2) Measuring reliability degree for the questionnaires**

Item	Alpha Cronbach's
29	0.799

The previous table indicates that Alpha Cronbach's greater than or equals 0.70 = ".799" for guests' questionnaires which indicated that there are an internal harmony in the questionnaires' statements and correlation coefficient between every section of questionnaires and other sections is extremely reasonable. Therefore, the researcher has been ensured that all statements of the questionnaire are reliable and suitable to analyze.

**RESULTS AND DISCUSSION**

**Table (3): Demographic data**

Demographic Data	Attribute	Statistics		Rank
		Freq.	%	
Gender	Male	297	67.9	1
	Female	140	32.1	2
<b>Total</b>		437	<b>100%</b>	
Age	Less than 30 years	49	11.2	4
	From 30-40 years	179	40.9	1
	From 41 – 50 years	115	26.3	2



	More than 50 years	94	21.5	3
<b>Total</b>		437	<b>100%</b>	
Educational level	Diploma degree	101	23.1	2
	University Degree	299	68.4	1
	postgraduate Degree	37	8.4	3
		101	23.1	2
<b>Total</b>		437	<b>100%</b>	

It is clear from Table (3), which shows the distribution of the study sample members according to the gender variable, that most of the study sample members are males, with a percentage of 67.9%. It is also clear, according to the age variable, that most of the study sample members are from the youth group 30-40 years old, where their percentage reached 40.9%, while the percentage of less than 30 years old was 11.2%. Finally, the percentage of those aged 40-50 years reached 26.3%. According to the academic qualification variable, that most of the study sample members have a university qualification, where their percentage reached 68.4%, while the percentage of those who obtained a diploma degree reached 23.1%. Finally, while the percentage of those with postgraduate studies reached 8.4%.

**Table (4) Correlation matrix and descriptive statistics**

Variables	1	2	3	4	5
1. Operational logistics service quality "OLSQ"	1	0.651**	0.592**	0.671**	0.586**
2. Relational logistics service quality "RLSQ"		1	0.567**	0.657**	0.549**
3. Communication "CLSQ"			1	0.596**	0.558**
4. Customer satisfaction				1	0.687**
5. Loyalty					1
Mean values	4.13	3.88	3.67	4.01	3.01
Standard deviation	0.48	0.504	0.451	0.509	1.019

\*\* Correlation is significant at the 0.01 level (2-tailed)

Table 4 shows that the respondents are agreed in the majority of questionnaire statements. Operational logistics service quality "OLSQ" dimension has a big percentage of agreement (mean=4.13, SD= 0.48), then customer satisfaction (mean=4.01, SD= 0.509), and relational

logistics service quality (mean=3.88, SD= 0.504), finally communication (mean=3.67, SD= 0.451). However, the respondents are neutral in the dimension customer loyalty (mean=3.01, SD= 1.019).

It can be shown from table 4 that customer satisfaction is positively and significantly associated to all aspects of the quality of the logistics service. For instance, there is a positive correlation ( $R = 0.671, p < 0.01$ ) between operational logistics service quality OLSQ and customer satisfaction, in addition, a significant correlation ( $R = 0.657, p < 0.01$ ) between relational logistics service quality and customer satisfaction, also, a positive correlation ( $R = 0.596, p < 0.01$ ) between communication CLSQ and customer satisfaction. As a result, hypothesis 1(a), 1(b), and 1(c) were confirmed. Similar to this, there is a positive correlation between customer satisfaction and loyalty ( $R = 0.687, p < 0.01$ ). As a result, we may conclude that customer satisfaction and customer loyalty have a significant and positive relationship, and hypothesis H2 is confirmed by this finding. Similar to this, all of the LSQ dimensions are positively correlated with customer loyalty. However, there is a strong correlation between customer satisfaction and communication ( $R = 0.558, p < 0.01$ ) as well as between operational logistics service quality "OLSQ" and loyalty ( $R = 0.586, p < 0.01$ ), relational logistics service quality "RLSQ" and customer loyalty ( $R = 0.549, p < 0.01$ ). As a result, the third hypothesis (3a, 3b, and 3c) is accepted.

**Table (5) T-test to study the regression of the independent variables on the dependent variable**

Constructs	Estimated coefficients	t-values
Operational logistics service quality "OLSQ"	0.296	1.728*
Relational logistics service quality "RLSQ"	0.214	1.137
Communication logistics service quality "CLSQ"	0.713	3.832**
Customer satisfaction	0.712	4.134**
Constant	-6.806	-5.880

\* Significant at  $p < 0.05$       \*\* Significant at  $p < 0.01$

According to Table 5, operational logistics service quality OLSQ has a positive and substantial effect on customer loyalty ( $B1=0.296, t=1.728, p < 0.05$ ). The outcome demonstrates that customer loyalty is influenced by the quality of operational logistics services. Customer loyalty is increased through improving the punctuality, consistency, regularity, and

correctness of the logistics service. The quality of relational logistics service, however, does not support hypothesis 3b ( $B2=0.214$ ,  $t=1.137$ ,  $p\geq 0.05$ ). It demonstrates that respondents believed that resorts must offer their customers this dimension of service quality. Customer loyalty is not decided by it. The communication result ( $B3= 0.713$ ,  $t=3.832$ ,  $p<0.01$ ) demonstrates that the communication with customers' has a positive impact on their loyalty. This demonstrates how customer loyalty is positively impacted by the receptionist's use of clear language, transparency in all business interactions with clients, and fewer recording and processing room errors. From the table above, it is clearly shown that LSQ dimensions have a significant impact on customer loyalty in existence customer satisfaction as a mediator ( $B4=0.724$ ,  $t=4.134$ ,  $p<0.01$ ). Thus, the hypothesis 4 is supported.

## **CONCLUSION**

By incorporating the logistics components of service quality, this study aims to investigate whether customers' satisfaction mediates the impact of logistics service quality LSQ on customers' loyalty in Egyptian resorts. Data was gathered from 437 guests to Egyptian resorts using a questionnaire developed by the LSQ scale to assess several aspects of logistical service quality. The findings indicate a positive relationship between all aspects of logistics service quality, customer satisfaction, and customer loyalty. Similar to how the level of customer loyalty is not significantly impacted by the quality of relational logistics services, meanwhile, operational logistics quality and communication do, however. In order to increase customer loyalty, the study recommends Egyptian resorts to concentrate on the communication aspects of logistics service quality.

## **RECOMMENDATION**

1. It is suggested to resort managements to offer a variety of customer-friendly membership programs so that guests can take benefit of them by joining the hotel.
2. Directing the resort managements more attention and support to the marketing communication programs and communication with customers, and focusing on the means of communication that are most acceptable and widespread among customers.
3. Develop mechanisms to activate communication and communication with customers by studying the different segments of customers and their interests and intensifying attention to the appropriate means of communication and communication for each segment.

4. Allocating an independent unit or department to work on communications practices with clients, and periodically evaluating their implementation for possible improvement. The reports and indicators that prove the integration of the means of marketing communication within the criteria for evaluating the performance of the marketing department are also linked.
5. It is necessary to pay attention to the analysis of current and prospective guests in the resort and to identify their needs through market research and marketing intelligence tools available at the marketing department.
6. Management's should interest in testing and measuring the effectiveness of the logistics services quality and the degree of customer response to it. It was recommended to use the dimensions of SERVQUAL for measuring the quality of logistics services for the hotel's activities.
7. It is recommended to measure the degree of customer satisfaction through survey forms that are concerned with customer satisfaction and to review them on an ongoing basis, and paying attention to knowing the level of customer loyalty.

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