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Developing Framework for Measuring Customer Loyalty and sustainability Growth in the 3PL Industry: A Case of an Evolving Market

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Abstract

This study explains the outcomes formed on study Developing Framework for Measuring Customer Loyalty in 3PL Industry. The gathered data was collected from the 133 respondents' employees of different industries who outsource 3pl services and Smart PLS – SEM was applied. The results explained that the service Quality has positive significant impact on customer orientation, customer satisfaction and relationship quality while on the other hand customer orientation has positive impact on customer satisfaction and insignificant impact on customer loyalty and relationship quality. Customer satisfaction has positive significant impact on relationship quality and insignificant impact on customer loyalty and on the other hand relationship quality has positive significant impact on customer loyalty. Results recommended 3pl company's managers to more focus on development of relationship quality with their customers along with good service quality and customer orientation.

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INTRODUCTION

From the last past two decades technology has changed every perspective of the business world and world has shrink into a global village and the way of doing business is much easier as compare to earlier but it has increased the competition in the market. Customers are becoming more demanding because of less trading boundaries and it has also impact on freight forwarding and Logistic companies' businesses in terms of privatizations of new and more businesses, local and global market competition and trends of new business ideas and economic strategies like CPEC. Pakistan has been in a need of best world class infrastructure for logistics and transportation activities and for the rapid movement of goods & services inside Pakistan to contribute in the economic cooperation organization ECO to boost the trade in central Asia. China-Pakistan Economic Corridor CPEC is a major initiative not for Pakistan and China but also for Asian economy because this CPEC has become the game changer strategic project not only in the China and Pakistan but it will also be going to help neighbor-hood & other Asian countries to boost the trade &

economic activities inside Asia. For logistic network expansion purpose china's one belt one road (OBOR) project or plan is to expand the logistics infrastructure nationwide. The plan is to expand the distribution system and to enlarge the system of warehouses in between major cities like Karachi & Islamabad and this plan also aims to improve and develop the auto industry in Pakistan because of the CPEC the demand for heavy vehicles and machineries for the transportation purposes will going to increase and to fulfill this demand many international auto companies has shown interest to invest in this region like Volvo & Man se (Nisar, 2017). The whole situation is going to increase the demand of 3PL third party logistics service providers directly & indirectly inside Pakistan. As compare to earlier freight forwarders provides limited kind of services and features but local and global competition has increases the list of freight services and features (Kilibarda et al., 2016).

Local freight forwarders convert their small companies into large logistics companies to provide a wide range of services in competitive prices and to maximize their profit by giving a tough time to their competitors (Shang and Lu, 2012; Murphy and Daley, 2001). According to the past studies the main focus of the researcher was to measure the quality of the services and most of the researchers appreciate the topics regarding to following study (Gronroos, 1984; Parasuraman et al., 1985; Martinez & Martinez, 2010), the focus was quality services models measurement and the reasons of low quality services (Parasuraman et al., 1988, 1991, 1994; Cronin & Taylor, 1992, 1994; Teas, 1994; Braddy & Cronin, 2001; Zeithaml et al., 1996). According to the Babakus and Boller (1992), Brown et al. (1993), Carman (1990), Cronin and Taylor (1992), Parasuraman et al. (1992) researches and studies were based on consumer's interviews and marketing orientation perspectives refer to the measurement of the services qualities.

Many complexes, detailed and elaborating kind of models were used for the expansion of the service quality theoretical domain (Bennington & Cummane, 1988; Brady & Cronin, 2001; Bienstock et al., 1997; Dabholkar et al., 2000; Mentzer et al., 1999, 2001). According to the Talha (2004) argues that the purpose of the total quality management is to consolidate the all business activities to provide the best end value to their customers but in the competitive era of the businesses the total quality management also becomes the important tool for the service quality after manufacturing (Ooi et al., 2011; Samat et al., 2006; Saravanan & Rao, 2006).

According Wang et al. (2008) according to the gradual changes of time and conditions 3PL service provider's companies has changed their strategies from cost based to services oriented strategies, that is why many 3PL firms has become more customer oriented (tian et al., 2010). The logistics provider's companies whom are customer oriented take good care of their customer by understanding the need of the customers and provide a better solutions and create a good value for their customer to satisfy their needs (Panayides, 2007; Tian et al., 2010).

Chu and Wang (2012) proposed that there is a greater rate of increment in outsourcing logistics services from 3PL providers because customers are expecting more and competition is also increasing. Because of higher competition in the open market companies are joining world trade organization and WTO has implemented the rules & regulations to improve the competitiveness in the market of 3PL service providers (Wang et al., 2008). Chu et al. (2016) argued that there has been a greater gap in finding the scenario that in which way third party logistics providers increase their performance of services to satisfy their customers. According to Murphy and Daley (2001), Shang and Lu (2012) claimed that small freight forwarders turn into large

logistics service providers' companies in a very competitive environment and continuously trying to penetrate in the market to give tough time to their competitors to increase their consumer base. Chu et al. (2016) examined that the cost factor of services does not affect in maintaining customer's loyalty and market penetration, in which logistics companies are suffering from the dilemma of satisfaction of customers with current service provision and probing out the ways to fulfill customers' expectations. Kiliboard et al. (2016) argues that the many 3PL logistics firms and freight forwarders are not aware of the factor of customer's perception about their service provision and customer expectations that has been built in the mind of the customers. Furthermore, it has been become impossible for the service providers to gain knowledge about the factor of current consumer mindset of 3pl consumers. So, we can probe out the answers of all questions by improving, measuring and monitoring the quality of the services (Liang et al., 2004, 2006; Lin & Liang, 2011; Ding & Tsai 2012).

The primary aim of this research is to investigate and identify the key attributes that significantly influence customers' purchasing decisions and overall satisfaction. Specifically, it seeks to understand which factors, whether related to product features, service quality, brand perception, or other psychological and emotional drivers, have the strongest appeal to consumers in a particular market or industry. Furthermore, the study explores the mechanisms through which businesses can enhance customer loyalty. Customer loyalty is a crucial component in the long-term success of a company, as it directly impacts repeat business, customer retention, and word-of-mouth marketing. This research aims to uncover the factors that contribute to fostering strong customer relationships and loyalty, including but not limited to, effective loyalty programs, personalized marketing strategies, customer service excellence, and brand trust.

By analyzing both the explicit and implicit drivers of loyalty, the research intends to offer insights into actionable strategies that can be implemented by businesses to not only attract customers but to also build a lasting connection that leads to sustained customer engagement and brand advocacy.

- What service quality attributes enhance customer satisfaction?
- What are the factors which contribute to customer loyalty?

Significance of the Study

This study helps the Pakistani freight forwarders, Logistics providers, supply chain analyst, Logistics analyst, Government bodies, Law making bodies, teachers, authors, writers and future researchers to understand the concept of service quality, customer demand and customer satisfaction and customer loyalty and how to measure and improve the quality of 3PL services in Pakistani context to gain and sustain a good competitive advantage and to become a market leader. This research will be helpful for the Pakistan Goods Carrier Association and Karachi Goods Carrier association in terms of Law making and amendments in the rules and regulations of the freight forwarders memorandum of association and Article of association to provide customer-oriented services to consumers.

LITERATURE REVIEW

Every research is become more genuine and reliable when the best related research papers are used as the evidence for the research topic. This paper is enriching with varieties of related past papers from the well-known journals. However, the main idea extracted form the two base papers which are Customer Value-based Theory and

the other is SERVQUAL Model the both papers are essential of this study according to (Seth et al., 2006) argued that for measuring the 3PL gaps of quality of services the framework of SERVQUAL Model is very much useful and implemented whereas, Slater (1997) proposes theory which explains the concept that how companies penetrate in the market and target their customers with their strategies and provide the value as promised. Measuring the framework of customer loyalty in 3pl industry reflect that customer satisfaction is directly proportion to the customer loyalty (Pattanayak et al., 2017), when companies and organization is more toward satisfying the customer needs and demand the customers bound with 3pl industry becomes robust plus unbreakable. Wu et al. (2017); Kilibarda, et al. (2016) also support the concept of customer orientation with the customer loyalty, if more studies are taken place in which the psyche of customers are pointed so customers directly attracted toward that organization and make themselves secure their companies value their loyal customers so they always having positive relation with 3pl industries.

Bolumole (2003) defines that the relationship between third party logistics and customers are directly proportionate to each other where not significant relation is found between strategy and the third party retailers because their main focus is to develop the best customer service on given time period, in the collaborating with this research (Naim et al., 2006) contributed that the relationship among the customers, suppliers and logistic is directly positive and depend on one another the better the customer services provided by the logistic enhance the better environment for suppliers. The measurement tools are the back bone of the research because the figure and relationships among the variable provide accurate and valid picture of the results so many tested empirical tools used like confirmatory factor analysis (CFA) and the structural equation modelling technique (SME) for the adequacy and accuracy purpose, regression analysis in the paper of Sonia et al., (2012); Minh and Huu (2016) etc.

3pl providers are to be more focused on the customer demand so they train their employees to treat their customer in the sense that they never break the chain with us and always transact their money to the valuable area. Gellert and Schalk (2012) indicated that the older the employee the better relationship was seen among the team members and supervisors which are directly proportionate with higher job satisfaction and also increase the performance at work. Meixell and Norbis (2008) represented the importance of supply chain integration, supply chain growth, fast adaption of environmental changes and the role of internet in today's world.

RESEARCH HYPOTHESIS

Service industry is a big sector that is why service quality has an important perceived value because of the higher level of participation of customers, intangibility of products and importantly perishability. Many past studies proposed that how service quality and customer satisfaction direct proportionality is increasing (Parasuraman et al., 1988; Wu & Chan, 2011). According to Gustaffson et al. (2005) service organization long run success factor can be determined by customer satisfaction and service quality because service quality is a prerequisite of customer satisfaction. Zeithaml et al. (1988) examined that according to customer perception there is a high impact of service quality on customer satisfaction. Wu and Chan (2011) used the SEM model and proposed that highest level of satisfaction is caused by positive customer perception. Moreover, Kaura and Dutta (2012) explained that according to Indian banking sector servicing industry, service quality and customer satisfaction has a

significantly positive effect. Hence, according to the above evidence it is hypothesized that;

- H1.** Service quality has significant impact on customer satisfaction.
- H2.** Service Quality has significant impact on Relationship Quality.
- H3.** Service quality has significant impact on Customer orientation.
- H4.** Customer satisfaction has significant impact on customer Loyalty.
- H5.** Customer orientation has significant impact on customer satisfaction.
- H6.** Customer orientation has significant impact on Relationship Quality.
- H7.** Customer satisfaction has positive impact on Relationship quality.
- H8.** Customer Orientation has positive impact on Customer Loyalty
- H9.** Relationship quality has positive impact on Customer Loyalty.

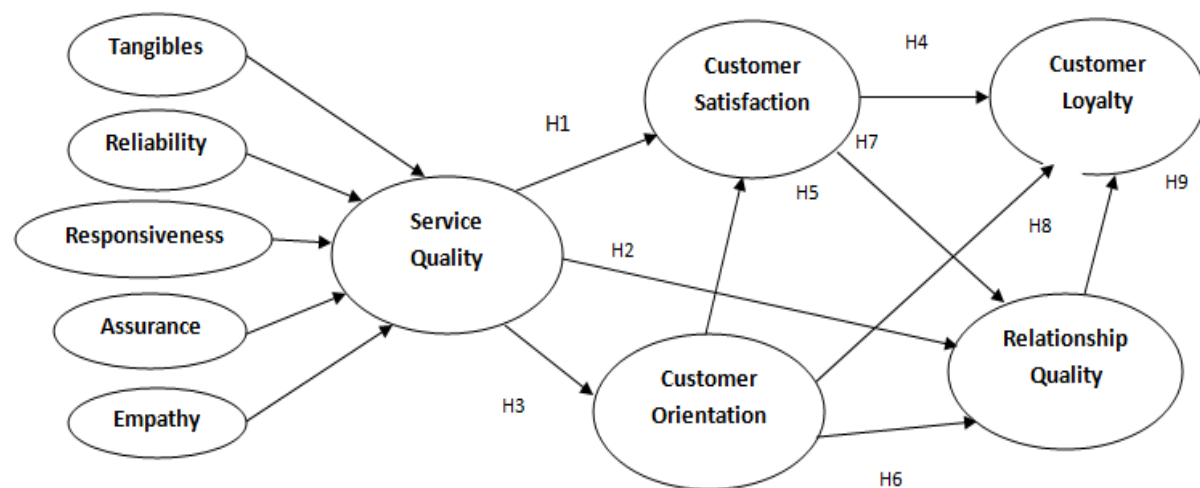


Figure 1.
Conceptual framework

RESEARCH METHODOLOGY

The two main types of research approaches are Qualitative and Quantitative research approach, in which Quantitative research approach has been used in this study. In this approach numerical & statistical techniques and processes has been used to analyze & evaluate the data to get the required results in the statistical form. By quantitative research technique, we can analyze the relationship of variables in a controlled environment by cause & their effects behavior. The analyze process has been conducted through the software called Smart PLS to get the proper results.

Research Design

The Co-relational design of research has been used in the study, in which main purpose of this design is to establish two or more than two variables relationship. The relationship in between these variables can be negative or can be positive and it depends upon the data gathered. In this correlational research design which shows the negative or positive effects of independent variables on dependent variables and the research which has been involved in measuring the degree of existence of more

than two variables relationship (Bordens, K. S. & Abbott, B. B., 2002). In this study, the relationship has been tested among service quality & customer orientation as independent variables and their effects on customer satisfaction, customer loyalty and relationship quality as dependent variables.

Sampling Technique

The sampling techniques which can be used commonly to gathered data are convenience sampling, Stratified sampling, systematic sampling, cluster sampling and random sampling (Zhu et al., 2012, Gizmenez et al., 2012, Caniato et al., 2013). But in this research we used purposive sampling because purposive sampling is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling.

Statistical and Data Analysis

The core target of this investigation was to delineate the impact of developed hypothesis on 3PL service quality and their effect on customer orientation, customer satisfaction, customer loyalty and relationship quality through projected model. For conducting the substantial study most applicable approach of quantitative research is statistical scrutiny was adopted to clearly endorse the collected sample data with the help of practical implementation, instrument authenticity, ratability and validity test, model fit and finding essential purpose of mentioned variables i.e. (Service Quality, Customer satisfaction, Customer orientation, customer loyalty and relationship quality), etc. (Hair, 200, leech et al., 2005).

However, the tools contained for testing the raw form of gathered data was thoroughly analyzed and firstly run SPSS followed by partial least square regression method and used smart PLS 3.2.4 to evaluate model fit ,validity and reliability test and building the relationships among the variables. The most important test of validity and reliability of outer model was already experienced and measured using the software PLS 3.2.2 before analyzing the developed hypothesis (Ringle et al., 2015), the inner model. Further description about outer model was explain in following divisions which are further split in to three categories of testing the reliability and validity of outer model part. Three sections are content validity, convergent validity, discriminant validity.

Content validity

Content validity is scrutinized through confirmatory factor analysis (CFA) and through cross loadings digits. It is beneficial for the researches to have strong and correlated factor loading of items in all over the tested model (Chin, 1998, Hair et al., 2013). However, the item which not build or attached with any other items are removed from the table to increase the model authenticity and validity of strongly related items. It is essential to set the loading more than 0.7, this reflect the property of computing related concept. For more illustration table 2 and 3 express all the related relevant and strong cross loading item are loaded on their respective paradigm.

Table 1.
Demographics

Description (Sample Size = 134 Respondents)		Frequency	Percentage
Designation	Lower Management	13	9.77
	Middle Management	43	32.33

Number of working years in the company	Upper Management	77	57.89
	< 1Year	9	6.76
	1-5 years	52	39.09
	6-10 Years	47	35.33
	11-15 Years	12	9.02
	16-20 Years	04	3
	>20 Years	09	6.76
Number of working years in Current position	< 1 Year	23	17.29
	1-5 Years	45	33.83
	>20 Years	65	48.87
Number of working years with current 3PL service provider	< 1 Year	19	14.28
	1-5 Years	44	33.08
	6-10 Years	49	36.84
	11-15 Years	08	6.01
	16-20 Years	08	6.01
	>20 Years	05	3.75

Source: Author's estimation

Table 2.
Factor Analysis Results

Constructs	AS	CL	CO	CS	EM	RL	RQ	RS	TN
AS1	0.831	0.589	0.577	0.765	0.653	0.684	0.675	0.600	0.478
AS2	0.861	0.642	0.571	0.591	0.601	0.559	0.598	0.682	0.421
AS3	0.819	0.566	0.532	0.634	0.601	0.528	0.581	0.633	0.433
CL1	0.656	0.885	0.564	0.672	0.749	0.640	0.723	0.738	0.500
CL2	0.669	0.866	0.605	0.644	0.742	0.709	0.728	0.696	0.470
CL3	0.627	0.879	0.602	0.638	0.719	0.567	0.692	0.668	0.525
CL4	0.513	0.823	0.492	0.573	0.605	0.569	0.664	0.583	0.383
CO1	0.364	0.312	0.564	0.383	0.262	0.279	0.337	0.424	0.252
CO2	0.650	0.578	0.856	0.700	0.634	0.555	0.636	0.607	0.454
CO3	0.578	0.577	0.832	0.682	0.625	0.591	0.696	0.578	0.373
CO4	0.542	0.542	0.822	0.693	0.581	0.654	0.667	0.511	0.452
CO5	0.492	0.547	0.864	0.652	0.587	0.564	0.645	0.571	0.453
CS1	0.576	0.524	0.599	0.833	0.572	0.621	0.650	0.556	0.378
CS2	0.720	0.700	0.662	0.873	0.718	0.697	0.751	0.670	0.453
CS3	0.702	0.562	0.658	0.841	0.708	0.668	0.725	0.588	0.459
CS4	0.695	0.567	0.660	0.786	0.610	0.605	0.647	0.639	0.408
CS5	0.656	0.605	0.665	0.844	0.679	0.614	0.711	0.601	0.383
CS6	0.560	0.638	0.685	0.751	0.632	0.655	0.686	0.595	0.420
EMP1	0.673	0.775	0.632	0.745	0.880	0.713	0.745	0.674	0.473
EMP2	0.607	0.632	0.593	0.644	0.835	0.613	0.650	0.658	0.505
EMP3	0.621	0.691	0.572	0.660	0.858	0.657	0.721	0.702	0.485
FVT1	0.608	0.546	0.497	0.591	0.614	0.606	0.589	0.617	0.785
FVT2	0.369	0.399	0.325	0.305	0.385	0.479	0.331	0.386	0.763
FVT3	0.243	0.302	0.324	0.265	0.311	0.341	0.296	0.398	0.774

Customer Loyalty and sustainability Growth in the 3PL Industry							Sultan, F., et., al. (2025)		
FVT4	0.231	0.298	0.314	0.233	0.272	0.289	0.290	0.281	0.667
R1	0.587	0.641	0.608	0.682	0.638	0.859	0.679	0.628	0.553
R2	0.600	0.625	0.566	0.640	0.672	0.854	0.633	0.704	0.529
R3	0.567	0.607	0.583	0.655	0.684	0.857	0.593	0.664	0.497
R4	0.657	0.581	0.570	0.694	0.633	0.834	0.635	0.636	0.491
RQ1	0.682	0.675	0.636	0.777	0.715	0.679	0.810	0.637	0.472
RQ2	0.628	0.746	0.684	0.789	0.726	0.710	0.863	0.673	0.426
RQ3	0.671	0.691	0.660	0.739	0.751	0.631	0.856	0.653	0.444
RQ4	0.589	0.722	0.647	0.660	0.617	0.564	0.854	0.570	0.467
RQ5	0.563	0.642	0.654	0.673	0.698	0.620	0.855	0.584	0.474
RQ6	0.577	0.597	0.575	0.602	0.620	0.526	0.784	0.530	0.424
RSP1	0.639	0.677	0.542	0.672	0.699	0.716	0.657	0.775	0.414
RSP2	0.561	0.566	0.530	0.531	0.585	0.599	0.540	0.832	0.516
RSP3	0.639	0.674	0.590	0.611	0.692	0.648	0.602	0.858	0.533
RSP5	0.646	0.620	0.552	0.601	0.595	0.553	0.574	0.798	0.486

Source: Author's estimation

Table 3.
Factor Loading Significant

Constructs	Items	Loadings	Standard Error	T Value	P Value
AS	AS1	0.827	0.046	17.937	0.000
	AS2	0.858	0.037	23.279	0.000
	AS3	0.817	0.041	19.786	0.000
CL	CL1	0.884	0.021	42.249	0.000
	CL2	0.863	0.032	26.801	0.000
	CL3	0.877	0.025	35.445	0.000
	CL4	0.818	0.039	20.921	0.000
CO	CO1	0.560	0.090	6.289	0.000
	CO2	0.854	0.033	26.303	0.000
	CO3	0.828	0.044	19.107	0.000
	CO4	0.819	0.045	18.225	0.000
	CO5	0.863	0.031	28.137	0.000
CS	CS1	0.831	0.033	25.036	0.000
	CS2	0.872	0.025	34.624	0.000
	CS3	0.839	0.033	25.447	0.000
	CS4	0.780	0.052	15.108	0.000
	CS5	0.842	0.033	25.483	0.000
	CS6	0.747	0.061	12.336	0.000
EMP	EMP1	0.878	0.027	32.637	0.000
	EMP2	0.831	0.042	19.714	0.000
	EMP3	0.856	0.031	27.854	0.000
FVT	FVT1	0.791	0.042	18.694	0.000
	FVT2	0.745	0.076	10.046	0.000
	FVT3	0.762	0.073	10.667	0.000
	FVT4	0.648	0.104	6.402	0.000
R	R1	0.857	0.031	27.571	0.000
	R2	0.854	0.027	31.723	0.000

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RQ	R3	0.857	0.028	30.622	0.000
	R4	0.823	0.050	16.582	0.000
	RQ1	0.804	0.046	17.674	0.000
	RQ2	0.860	0.029	30.107	0.000
	RQ3	0.853	0.033	25.996	0.000
	RQ4	0.853	0.030	28.482	0.000
	RQ5	0.852	0.033	26.025	0.000
RSP	RQ6	0.780	0.051	15.338	0.000
	RSP1	0.771	0.048	16.199	0.000
	RSP2	0.830	0.039	21.276	0.000
	RSP3	0.857	0.027	31.509	0.000
	RSP4	0.801	0.038	21.265	0.000

Source: Author's estimation

Convergent validity

The convergent validity is measure through the constructed model where all the item are placed and interlink with each other or as a collective convergence of a group of item (Hair et al., 2013). For regulating the measurement of convergent validity three elements should be treated as important, they are statistically strong and significant factor loading is set more than 0.7, secondly 0.5 average variance extracted (AVE) is considered satisfactory (Fornell and Larcker, 1981). Finally composite reliability should be 0.7 or more is accepted. All requirements have been made up to the mark as we can see in table 4.

Table 4.
The Convergent Validity Analysis

Constructs	Loadings	CR	(AVE)
AS	0.788	0.875	0.701
CL	0.888	0.921	0.745
CO	0.877	0.894	0.633
CS	0.905	0.926	0.676
EM	0.821	0.893	0.735
RL	0.873	0.913	0.724
RQ	0.917	0.934	0.701
RS	0.833	0.888	0.666
SQ	0.948	0.947	0.506
TN	0.783	0.836	0.561

Source: Author's estimation

Discriminant validity

Discriminant validity is described as the ability to discriminate the gathered item organized in the construct of model which is separated from other construct is called discriminant validity (Mehmood and Najmi, 2017). In this examination discriminant authenticity was calculated through three procedures; At first, refinement between loadings of everything in their generate and cross loading on all other no significant fabricates should be more weighty than 0.1. Secondly, the establishment was attempted against the approach which says that the relationship matrix as showed up in Table 5 having parts in a diagonal line addressing the square fundamental formations of AVE should be above than the correlated item build in another constructs in rows and column (Fornell and Lacker, 1981). Heterotrait-monotrait ratio of correlations (HTMT) is the third measure utilized. According to the (Henseler et al.,

2015) any digit numbering more than 0.85 is treated as unacceptable and referred as non-conformity. As we can see the fulfillment of the requirements in table 5 and 6.

Table 5.

Correlation of Discriminate Validity

Constructs	AS	CL	CO	CS	EM	RL	RQ	RS	TN
AS	0.837								
CL	0.716	0.863							
CO	0.670	0.656	0.795						
CS	0.795	0.733	0.789	0.822					
EM	0.740	0.817	0.699	0.798	0.857				
RL	0.708	0.721	0.684	0.784	0.772	0.851			
RQ	0.740	0.813	0.769	0.818	0.824	0.746	0.838		
RS	0.762	0.779	0.679	0.742	0.791	0.774	0.729	0.816	
TN	0.531	0.545	0.507	0.509	0.568	0.608	0.538	0.597	0.749

Source: Author's Estimation

Table 6.

Heterotrait – Monotrait Ratio (HTMT) Results

Constructs	AS	CL	CO	CS	EM	RL	RQ	RS	TN
AS									
CL	0.855								
CO	0.812	0.744							
CS	0.938	0.815	0.897						
EM	0.919	0.955	0.815	0.923					
RL	0.851	0.818	0.776	0.882	0.911				
RQ	0.869	0.900	0.854	0.926	0.948	0.831			
RS	0.942	0.903	0.808	0.852	0.955	0.904	0.830		
TN	0.623	0.624	0.598	0.557	0.667	0.699	0.602	0.703	

Source: Author's Estimation

The Structural model and test of hypothesis

The structural equation modelling (PLS) was used to test the developed hypothesis after following the validation techniques (Ringle et al., 2015). The main idea behind testing from this SEM equation because only this structural equation is having great possible ways for estimating other models respectively and considered as the best among all the statistical tool (Hair et al., 2011, Henseler et al., 2015). Especially replaces the importance of the covariance (Hair et al., 2011, 2012). Using the sample data of 500 with smart PLS the research is executed further and testified in the figure number 2 and 3.

Predictive relevance of the model

The usage of R-square is utilized to gauge the aggregate limit as far as variance clarification of the coveted model (Hair et al., 2011). According to Cohen (1988) stated that values between 0.13 and 0.02 are said to be weak and mild, whereas the values near 0.26 are strong and significant Q-square is known as the quantity used to determine the predicative relevance. Predictive relevance can be recognized by the values greater than 0 and higher if the change between Q-square and R-square is mild (Hair et al., 2011; Hair et al., 2014). According to the results of this study, the result has been recorded as substantial level because all the values of the factors or

variables are above than mentioned criteria of substantial level of R-square. The values of customer orientation (0.567), customer satisfaction (0.778), and customer loyalty (0.668) and relationship quality (0.776) are strong and greater than criteria. As compare to the service quality (1) which has strong significant value. The Q2 values has greater numbers of value than 0 and as compare to the R-square values which is less than or half the values as compare to the R-square. We can see all the relevance values in table 7.

Model is goodness of fit (GOF) is also the ways of analyzing the model of PLS-SEM (Tenenhaus et al., 2005). Even though the latest edition of GOF is not recommended for every research using PLS (Hair et al., 2016). The investigation consists of the usage of average communality (AVE) and predictive indicators (R-squared) to measured model fit. It is stated by the formula:

$$\text{GoF} = \sqrt{\text{Average } R^2 * \text{Average AVE}}$$

The values which are used to estimate the level are small (0.1), medium (0.25) and large (0.36). The values of the calculated as per the above criteria results are 0.6522 and 0.7578 which is more than the above criteria and has a very strong significant impact.

Table 7.
Predictive power of Construct

Construct	R Square	Q Square
CL	0.668	0.493
CO	0.567	0.348
CS	0.778	0.512
RQ	0.776	0.531
SQ	1.000	0.496

Source: Author's Estimation.

The beta coefficient represents that how and in what direction or magnitude, in positive or negative accordingly unit change in shift of a dependent variable to an independent variable with other variable construct (Hair, 2010; Leech et al., 2005). As we can analyze the values in table number 8 and in figure number 3 and the criteria of the significance level is 0.01 which means probability or p value should be equal to or less than 1%. Service quality has significant and positive impact on customer satisfaction at the level of (0.00) Beta = 0.573, t-stats = 8.878 and p value = < 0.01. Service quality has positive significant impact on relationship quality at the level (0.00) Beta = 0.348, t-stats = 3.827 and p value = < 0.01. Service quality has significant and positive impact on customer orientation as per the criteria level (0.00) Beta = 0.751, t-stats = 13.327 and p value = < 0.01. Customer orientation has significant positive impact on customer satisfaction at the level (0.00) Beta = 0.365, t-stats = 5.432 and p value = < 0.01. Customer satisfaction has significant positive impact on relationship quality at the level (0.00) Beta = 0.407, t-stats = 4.190 and p value = < 0.01. Relationship quality has significance positive impact on customer loyalty at the level (0.00) Beta = 0.674, t-stats = 5.434 and p value = < 0.01. While customer orientation has insignificant impact on customer loyalty at the level (0.710) Beta = 0.028, t-stats = 0.372 and p value = > 0.01. Customer orientation has significant impact on relationship quality at the level (0.028) Beta = 0.180, t-stats = 2.201 and p value = > 0.01. Customer satisfaction has insignificant impact on customer loyalty at the level (0.300) Beta = 0.138, t-stats = 1.037 and p value = > 0.01. However, the lowest insignificant value is (0.028) which belongs to customer orientation and relationship quality which can be improved. Above all explanations and estimation all the hypothesis is tested and supported.

Furthermore, in higher order; Freight vehicles tangibles have significant positive loading on service quality at the level (0.00) Beta = 0.152, t-stats = 7.289 and p value = < 0.01. Reliability has significant positive loading on service quality at the level (0.00) Beta = 0.293, t-stats = 16.906 and p value = < 0.01. Responsiveness has significant positive loading on service quality at the level (0.00) Beta = 0.260, t-stats = 14.930 and p value = < 0.01. Empathy has positive significant loading on service quality at the level (0.00) Beta = 0.231, t-stats = 15.873 and p value = < 0.01. Assurance has significant positive loading on service quality at the level (0.00) Beta = 0.208, t-stats = 16.642 and p value = < 0.01. Hence, according to the above explanation all the hypothesis is tested and suggested.

Formative Service Quality	Indicator for Loading of Construct	Standard Deviation (STDEV)	T (O/STDEV)	Statistics	P Values
AS -> SQ	0.208	0.013	16.642		0.000
EM -> SQ	0.231	0.014	15.873		0.000
RL -> SQ	0.293	0.017	16.906		0.000
RS -> SQ	0.260	0.017	14.930		0.000
TN -> SQ	0.152	0.021	7.289		0.000

Source: Author's estimation

HYPOTHESIS TESTING RESULT

No.	Hypothesis	Estimate	SE	T Value	P Value
1	CO -> CL	0.028	0.070	0.372	0.710
2	CO -> CS	0.365	0.068	5.432	0.000
3	CO -> RQ	0.180	0.082	2.201	0.028
4	CS -> CL	0.138	0.135	1.037	0.300
5	CS -> RQ	0.407	0.096	4.190	0.000
6	RQ -> CL	0.674	0.124	5.434	0.000
7	SQ -> CO	0.751	0.056	13.327	0.000
8	SQ -> CS	0.573	0.064	8.878	0.000
9	SQ -> RQ	0.348	0.093	3.827	0.000

Source: Author's estimation

According to the results of above table that shows the significant and insignificant impact of variables on each other or independent variables on dependent impact. It shows service quality has significant impact on customer orientation, relationship quality and customer satisfaction while on the other hand customer orientation has significant impact on customer satisfaction and insignificant impact on customer loyalty & relationship quality. Customer satisfaction has significant impact on relationship quality and insignificant impact on customer loyalty. Relationship quality has significant impact on customer loyalty.

Table 10.
Construct of Indirect Effects

Construct	Loading of Construct	Standard Deviation (STDEV)	T (O/STDEV)	Statistics	P Values
CO -> CL	0.269	0.069	3.978		0.000
CO-> RQ	0.148	0.043	3.447		0.001
CS -> CL	0.272	0.078	3.487		0.001

Source: Author's estimation

In above table 10 data shows and defines the indirect effect of variables such as, customer orientation indirect impact on customer loyalty & relationship quality and customer satisfaction indirect impact on customer loyalty. In which, customer loyalty is improved with beta value of (0.269) by customer orientation through relationship quality. Relationship quality is improved with beta value of (0.148) by customer orientation through customer satisfaction. Customer loyalty is improved with beta value of (0.272) by customer satisfaction through relationship quality.

CONCLUSION

The main or core objective to conduct this study or research was to probe out the service quality level of third-party logistics service providers 3PL in a Pakistani context and to know the customer perception about their 3PL service provider in this industry. In deep, in this kind of Pakistani industry which includes maximum numbers of people which have a traditional mindset or way of doing business is traditional, which has been followed by their ancestors since Pakistan, founded and then after this industry prospered. To check out the customer satisfaction and customer loyalty towards this industry were the second core objective, in which customer perception has been record that if they are satisfied from their 3pl provider services so are they loyal to them or not? And what are the factors that affects the customer satisfaction and customer loyalty and what are the factors in between which connects them, like customer orientation of the company and relationship of quality of the 3pl and their customers. Size of sample included 150 companies of different nature who outsource third party logistics services in Karachi. In which 133 valid responses were received or filtered from the total sample population.

Questionnaire has been provided to the target population which includes higher level management, middle level management and lower-level management. All three categories are included in target population because of flow of information in the company and major involvement of operational level staff in this field. The interaction level of the middle and mostly lower-level staff is major in terms of physical activity on location as compare to the upper-level management who just talk or deals in inside the office. Responses were recorded at the rate of 90% because from some companies or target people data has not been provided of their busy routine or some other issues. Variables which have been included in this study are Service quality as independent variable, and dependent variables are Customer satisfaction, Customer loyalty, customer orientation and relationship quality.

FUTURE RECOMMENDATIONS

It is suggested that future researcher should include the areas like technological issues, infrastructure and environmental uncertainty issues in 3pl service sector and this kind of research should be implemented through Qualitative techniques to get the more appropriate results. For future researchers, who have interest in this field it has been suggested that they should prolong and implement this study on service sector of Pakistan to get the clearer image of Service industry of Pakistan that where are we standing in terms of service provision, customer satisfaction and in customer orientation.

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