

## Quality issues of E-Commerce Delivery in Pakistan

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### Abstract

*The research aims to study the factors affecting delivery quality issues in e-commerce in Pakistan. The study examined logistics, product quality, return policies and customer support service as the key factor to determine relationship with delivery quality in Pakistan e-commerce industry. Present study also finds the impact of logistics, product quality, return policies and customer support service on delivery quality in e-commerce. The study used quantitative approach and data was collected through questionnaire by survey which was conducted using simple random convenient sampling and the research modal was tested empirically by using a sample of 386 questionnaires, collected online from online shoppers. Correlation was applied to find out the relationship among variables and regression was applied to find out the impact of (independent variables) logistics, product quality, return policies and customer service support on quality of delivery in e-commerce. The results indicate that logistics, product quality and return policies have moderate correlation with quality of delivery while customer support service has low correlation with quality of delivery in e-commerce. logistics, product quality, return policies and customer service support have statistically significant impact on quality of delivery. The findings of this research will help*

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*policy makers in developing effective strategy and an effective e-commerce business model.*

**Keywords:** Quality Issues, E-commerce delivery, logistics, quality of product, return policies, customer service.

## **1. Introduction**

It is predicted that in emerging economies, e-commerce is the main factor that is contributing in economic growth. The facility of web technology is providing greater opportunity to the organizations to expand their business through increasing the customer base and excess global market. In context of Pakistan the introduction of e-commerce was not easy and takes place in 1999. The first internet industry started by Abid Beli in 2001 and then other websites advance with the passage of time. According to last updated report of the Internet service providers association of Pakistan (ISPAK), which assert that there are twenty-five million users of internet and still there is a need of more online website as numbers of internet users are increasing day by day. Even though this new form of trading offers customers great ease, more product alternative, and a huge amount of product information, compared to traditional retail shopping. However online shopping is in its early life due to “the lack of direct, face-to-face interaction with the company and the intangible nature of the products” (Yan, 2013). In addition, lack of physical sign, sales persons, personal information confidentiality, fear of online fraud and the distance factor between the vendor and customer are emerging as major reasons why people are not buying online (Gustavsson, 2006). The issue regarding the product and service quality delivery is the main factor in online business, at the same point the success of e-commerce model delivery is mainly based upon the internet service provider, making it the backbone of e-commerce business model (Santos, 2003). There are many firms searching for the possibility for the new means or form of distribution channels, in this regard’s researches have been undertaken to understand the effectiveness of online business operations through data analysis which include envelopment (Tu, 2010). Consumer adaptability is the key aspect for the victory of e-commerce industry as the online business is highly dependent on this habit of customer. The

sustainability of the industry is based on the fact that your customer anticipation should be met constantly. These days logistics effectiveness and on time delivery of product is the main and crucial factor for any customer doing shopping online and whole e-commerce industry faces this challenge. The internet portal where customer do shopping is judge primarily on the basis of above criteria (Bose, 2015). The logistics of an online business model should be strong and well established enough to delivery product on time and in top quality this is because customer expect this to be happen when they order online. This create strong loyal customers since these companies provide superior quality service and which ultimately leads to higher profit-making company then others (Janda, 2002). An essential part of retail supply chain is reverse logistics, which take place once the customer has purchased the product through the portal, meaning after sale service (Bernon, 2011). Nowadays the return of product is the key operational responsibilities e-commerce business have because of the processing cost and the amount of volume which can not be ignored. The service after the purchase has been made is crucial factor as customers are very sensitive about this service (Mollenkopf, 2007). Keebler (2013) provided a forecasting device to improve commercial relations and divide the business combinations, he gives a basis for the evaluation of whole value supply chain. A research not discourse about the delivery quality issues in e-commerce but the paper demonstrated about the challenges and complexities of logistics and fulfillment in e-business in developing countries. These challenges include infrastructure, safety, confidentiality, geographical issue, monetary and educational issues etc. (Bayles, 2002). Wang (2003) discussed about the evaluation of service quality in global context through e-satisfaction of customers buying online. After the literature is being reviewed, it is identified that number of researches focusing on satisfaction of customer and retaining them in e-commerce along with the strategies to be taken. In these, major studies deal with variables that effect website quality, repurchase intention, website interface, convenience, product price, security and privacy (Desai, 2012).

There are 3 aspects of online business logistics which includes mainly 3 phases; the most important phase involves the fast delivery of orders from distribution centers to customers. The issue regarding the product and service quality delivery is the main factor in online

business, at the same point the success of e-commerce model delivery is mainly based upon the internet service provider, making it the backbone of e-commerce business model (Santos, 2003). There are many corporations searching for the possibility for the new means or form of distribution channels, in this regard's researches have been undertaken to understand the effectiveness of online business operations through data analysis which include envelopment (Tu, 2010). Consumer adaptability is the main factor for the victory of e-commerce industry as the online business is highly dependent on this habit of customer. The sustainability of the industry is based on the fact that your customer anticipation should be met constantly. These days logistics effectiveness and on time delivery of product is the main and crucial factor for any customer doing shopping online and whole e-commerce industry faces this challenge. The internet portal where customer do shopping is judge primarily on the basis of above criteria (Bose, 2015). The logistics of an online business model should be strong and well established enough to delivery product on time and in top quality this is because customer expect this to be happen when they order online. This create strong loyal customers since these companies provide superior quality service and which ultimately leads to higher profit-making company then others (Janda, 2002). An essential part of retail supply chain is reverse logistics, which take place once the customer has purchased the product through the portal, meaning after sale service (Bernon, 2011). Nowadays the return of product is the key operational responsibilities in e-commerce business because of the processing cost and the amount of volume which cannot be ignored. The service after the purchase has been made is crucial factor as customers are very sensitive about this service (Mollenkopf, 2007). Keebler (2013) provided a forecasting device to improve business relations and divide the business combinations, he gives a basis for the evaluation of whole value supply chain. A research not discourse about the delivery quality issues in e-commerce but the paper demonstrated about the challenges and complexities of logistics and fulfilment in e-business in developing countries. These challenges include infrastructure, safety, confidentiality, geographical issue, monetary and educational issues etc. (Bayles, 2002). In various industries to reduce cost of distribution and flow of material it has become most important to improve effectiveness of contemporary logistics. Furthermore, the development

of online buying and selling has resultant in growth of logistics services and industry. Further technological advancement related to logistic industry is also taken place. In e-business industry there are huge amount of activities have been done (Ramanthan, 2010). In context of Pakistan researches has been conducted to examine customer trust, customer satisfaction and e-commerce adoption. However, in term of logistics and order delivery quality, no research has been carried out in B2C mode. According to the research which focuses on Indian e-commerce market, suggested that future researches can be carried out in different other emerging economies and e-commerce markets for the generalization of this concept. Hence as per the discussion above the research is going to examine the impact of Logistics, Quality of product, return policies and customer service support on quality of delivery in e-commerce.

### **Research Questions**

How do Logistics, Quality of product, return policies and customer service support affect quality of delivery in e-commerce?

## **2. Literature Review**

World is evolving very fast and with the passage of time technological advancement is overtaken over every aspect of our daily lives and routines. Globally, the growth of e-commerce has contributed appraisable to the industries (Aserkar and Verma, 2018). The victorious implementation of the e-commerce delivery model internet services plays a vital role, but the delivering of the quality of services and products is the key factor of importance (Santos, 2003). According to the Global Retail Development Index (GRDI) 2014 stated that reportedly recorded that quick enlargement of internet and smart phone uses will be increase day by day (Aserkar and Verma, 2018). Developing countries have some key drivers which help country to grow and flourish economically. E-business is the main issues for the development of the country dependent on the flexibility of consumers. For the judgement an e-commerce business and gateways productiveness of the transportation is a decisive agitate. Customer wants their products on time without delaying and in an excellent condition that is the reason the logistics and supply chain part of an online buying and selling industry ought to be robust, fine maintained and recognized. Therefore, quality providers companies have to build

strong loyalty among their customers by providing their customers superior quality of products and services because they also generate giant profit from them (Janda et al., 2002). Organization should link their internal process with their external suppliers to run all the logistics function in flow (Aserkar and Verma, 2018). Supply chain department should be very strong for the organization like an electronic commerce. Consistency of suppliers, retailers, distributors, intermediaries and customer all of them play a vital role to run all the supply chain activity in an online store as well as any logistics organization (Kang, 2010). Flow of knowledge is the major determinant in the supply chain and that flow should be strong enough so that every can get first-hand knowledge easily. Good flow of knowledge gives the transparency in to the work and an organization will get fruitful results (Vermeulen, 2010). These knowledges are basically split in to two form and these are tacit and explicit (Nonaka and Takeuchi, 1995). Knowledge which transferred person to person for an online discussion and knowledge of codification all included in explicit knowledge. On the other hands tacit knowledge articulate but tacit can be comprehend by long experience (Cabrerera, 2002) (Bahrucha, 2017). Since e-commerce is a very sensitive industry so it may have variances as well. Inverse logistics is an essential portion of the supply chain of retail industry, which count in service to client afterward they put their order on an online portal (Berton et al., 2011). Processing cost and volume of the product will be affected if the product will retain by any customer and this is not neglect able because product retain is one of the major operational challenge in the online retail industry. The customer of this industry wants high quality of their products and services and they show their major concern and consciousness about the product and services afterward they have bought the product (Mollenkopf, 2007).

## **2.1 Supply chain and Logistics**

According to the report of world the main agenda of the e-commerce market are service to customer and logistics. these are non-glamour portions of the commercial. An important part of any supply chain activity is the logistics. Those firms who have good commands on their logistics and have higher capable people with good logistics knowledge are trusted to provide higher-level activities in the internet business market. Entirely new distribution foundation requires for the e-

commerce shipment to oversee e-business. Repeatedly, the innovative excursion supplies sometimes to actuality subcontracted and also it will create chances for the third-party logistics (3PL) service providers (Deckmyn, Scheraga and Kroll, 1999) thus, with the continually increasing in the graph of e-commerce or online websites the position of transportation competence and subcontracting are probable getting high. Researchers observed that logistics provide competitive advantage to the firm along with this it contributes the major portion of corporate strategy and performance. Therefore, it is hypothesized that:

**H<sub>a1</sub>:** There is significant relationship between Logistics and quality of delivery in e-commerce.

## **2.2 Warranties and Customer service support**

Customer support service is the key item used for analyzing the quality of an e-commerce industry. (Aserkar and Verma, 2018) according to them previously customer service which customer got from the organization is very important for client satisfaction and retaining. Customer support department has to play a very sensitive of an organization because they have to work to keep their customer with them by providing satisfaction to them. Any complaint and query which customer are facing regarding the product quality and service so the foremost duty of the customer support service department of an electronic commerce organization is to satisfy them. Moreover, it helps to develop competitive advantage and also good customer relationship online (Fan, 2013) According to some other literatures in some cases customer could be involve in misrepresentation and frauds. Some literatures found that poor service quality may cause the increase in customer complaint. If customers are not able to satisfy by their online hopping their they found it worst and their word of mouth will destroy the organization position as well and organization will start losing their customer because customers will start turning back towards the traditional shopping (Aserkar and Verma, 2018). Face to face communication is an advantage in an online shopping but with this it also acts as a disadvantage as well. Somehow organization save them by face to face communication and somehow not describing their product individually also cause barrier between customer and buyer in an electronic commerce market (Cho et al., 2003). Therefore, it is hypothesized that:

**H<sub>a2</sub>:** There is significant relationship between customer service support and quality of delivery in e-commerce.

### **2.3 Product quality**

Customer satisfaction is the only plus point in the service industry and satisfy their customer is not the easy task for the service providers industry because usually customer make their buying decisions on the basis of their experience relatively than spreading through words (Fan, 2013). If customer will come to you again and make repurchase the product that they have bought before this shows that you satisfy your customer and fulfill their desires (Jiang and Rosenbloom, 2005). By the previous research's researchers identify that product quality is one of the main agendas among all the e-commerce customer because they trade and deal on the fortunate basis because risk factor is very high and customer have no idea what quality of product will they will get after buying the product (Sinha, 2014). Service and product quality are the foremost priority in an e-commerce industry so, if an online store is not able to provide the required service then automatically their organization will not able to survive in to the market. Moreover, defects in product are the major service failure in an e-commerce industry said by (Fan, 2013). Customers having trust issues by buying the product online because they are not very much confident about the condition of the product. Inferior quality of the products, products is not up to the mark, damaged products and having bad quality of products gives negative impact on buyer perception about the company (Cho et al., 2003). When product is not able to reach the expectation of the customer then customer will think they might order wrong product and customer perceived it poor customer quality as well. Hence, it is hypothesized that:

**H<sub>a3</sub>:** There is significant relationship between quality of product and quality of delivery in e-commerce.

### **2.4 Product carrying back polices and refunds**

Researches who have done researches previously on e-commerce they all have were arguing on the product return back polices. While the industry of e-commerce growing exponentially so they should also come up with some product return back schemes because this thing will encourage e-commerce customer to attract towards them more. It



is being observed by some researchers that return back policy of the product have a significant impact on the customer buying pattern (Pei, 2014). The foundation of return back policy is revolving around basically two factors: category of the product and price of that product, (Srivastava, 2006). Return policy which is defined well and efficient directly related to the customer satisfaction. Customer post purchase behavior is very valuable in electronic commerce. Return management is a basic issue which is an e-commerce market is face on daily basis. But on the other hands researchers also find that increase in refunds will also cost increase customer complains as well. Thus, it is hypothesized that:

**H<sub>a4</sub>:** There is significant relationship between return policies and quality of delivery in e-commerce

## **2.5 Quality of delivery of an online product**

Superiority of the product is the major concern of any industry. Similarly, an e-commerce Industry can also improve their quality step by step which is recommended by (Juran, 2003) and that is build awareness to improve quality, set defined goals for improvement, provide trainings regarding advancement and changes, taking projects on problem solving, report and update every employee respecting progress, share and recognize the results, keeping goals etc. (zeithami, 2003) defined the service quality in an e-commerce industry in expression of two scale which includes a recovery gauge and a essential E-SQ scale. E-SQ scale contains scopes which is effectiveness, consistency, fulfillment also confidentiality. On the other hand, on the assumption of return of shipping, contact information and details of the customers to talk to the live customer service this concludes in recovery scale. After delivering the product customer satisfaction is the main and foremost agenda in every industry but it is very valuable for the service providers because their relationship with their customer is very sensitive. Similarly, an emerging market i.e. an e-commerce industry. In past studies authors identified that if an e-commerce organization wants to earn and maintain their competitive advantage in the market so for this, they have to deliver superior and fine quality of products to their customer and collect their feedbacks regarding quality, payment methods, delivery time duration and over all services and experience. This information will help the organization to enhance their quality and

also make their customers loyal towards them (Piercy, 2014). Execution of the whole online buying process and order fulfilment is a very important factor for satisfaction of customer and holding (Rao et al., 2011). Likewise, (Mollenkopf, 2007) said that customer perception can also be affected by the return experience. Companies found taking initiative of online portals is the easy way to enter and survive in the e-commerce market but developing an online buying and selling web portal is not the individual job. However, management of a website, product delivery and fulfillment of the products are crucial task of an online portal. Hence, firms should make them eligible, prepare themselves by developing capacity of fulfillment their customer orders completely the method by source chain. (Cox and Dale, 2001). Hence it is hypothesized that:

**H<sub>as</sub>**: There is significant impact of logistics, quality of product, return policies and customer service support and quality of delivery in e-commerce.

### **3. Research Methodology**

#### **3.1 Type and nature of Study**

The research is quantitative in terms of nature; quantitative is the reliable and suitable approach for identifying relationship between different variables under the study. The study intends to uncover solution of the real business problem using the theory and data through statically analyzing data. The research is casual by type, as this research casual is about finding the relationship among logistics, quality of product, policies of product return and service to customer and delivery quality in e-business model.

#### **3.2 Sampling Design**

This research audience comprise of people who do online shopping in day to day operations. This research sample size is 400; because of the issue of credibility, ease and also that our target people is unknown and no numerical technique or formulae can be used for the reason of the sample size (Sauders, 2009). The technique which is applied for sampling is convenience sampling is, it is a technique which is non-probabilistic. The population is unknown and these is no list of participants is available and it is unable to find exact no of online

shoppers in Pakistan, due to non regularity and data availability therefore this is the reason behind selecting this sampling technique.

### **3.3 Instrumentation**

Aserkar and Verma, (2018) had designed survey instrument; the instrument was adopted from previous researches to measure the special constructs of the e-commerce delivery modal. The instrument is comprising of questions related to each independent variable. The responses to the questions were coded on Likert scale comprise of 5 point from strongly disagree to strongly agree. Scaling them as 1 to 5 for the all the variables.

### **3.4 Procedure of Data Collection**

The data collection technique is very useful in a situation where closed ended questions need to be asked in order to get precise and to the point data from the primary sources. Present study data is collected using survey questionnaire, respondent are ask to fill the questionnaire with the consent of respondents without any persuade. The questionnaire was distributed using both physical and electronic mean of communication like internet.

### **3.5 Content Validity and Factor Analysis**

Validity is defined as the ability of a questionnaire to measure what it intends to measure. The instrument must include a set of items to ensure that it tap the concepts in order to be valid (Sekaran, 2003). For instrument to be valid and consistence, the Cronbach  $\alpha$  result figures should be in the array of 0.60–0.87 because the research is exploratory, therefore 0.50–0.60 is considered satisfactory.

When the large number of items set related to a variable is reduced and bring down to summarize and in one factor that measure a variable is called factor analysis (Coakes, 2005). The study used exploratory factor analysis based on principal component method to identify factors from different items of each construct i.e. Independent and dependent variables under study. Each item loads in to a main factor based on the factors loading which have also been identified.

### **3.6 Correlation Analysis**

In order to examine the association between different variables, it is the method is which is best, it is called correlation test. The strength

of relationship between two variables can be easily identified from the coefficient of correlation. Coefficient value can take any value between  $\pm 0.01$  to  $\pm 1.00$ . A relationship can be of two nature; positive and negative. Positive coefficient shows a positive relationship that as rise in values of a study variable increases the value of another variable. By contract a negative coefficient represent a negative relationship, as change in one factor can change the value of another factor that can be raised or down.

### **3.7 Multiple Regression Analysis**

When we want to regress several variables together to find out the value of one variable which is the dependable variable is called regression analysis. It also explained the change in dependent variable can be occurring due to independent variables. The value of co-efficient of determination ( $R^2$ ) represent degree of prediction which your regression equation can find. The co-efficient of determination can take any value between  $\pm 0.01$  to  $\pm 1.00$ .

## **4. Result**

Demographic analysis contributes in understanding the basic features of the data gathered. The demographic characteristics of the research data are illustrated in Table 4.1. From table it can be seen that the total observations were 386, out of which 67% were male (N=260), and 33% female (N=126). About their age the respondents were asked, so according to the age distribution, the dominant age group was the one between 20 and 25 (58%), and the second between the ages of 26 and 30 (35%). The first two age groups 20-25 and 26-30 respectively are account for 92% of the total age distribution of the respondents in the sample. The detail overview of the distribution frequency according to age can be seen in Table above. The respondents were further also asked about their education, and the analysis of result suggest that majority of the respondent were educated enough as the dominant group of the respondents have bachelors and master's degree which indicate high expertise, combine result of them is (N=311), i.e. 82%. Breakup of the dominate education group indicates 43% and 39%, bachelors and master's respectively. The next most dominant group among the respondents were M Phil accounted for 12% of the overall population of the respondents which further contribute in high educated profile of the respondents. Furthermore, regarding marital

status a question was also asked. Most of the respondents are unmarried, as the 82% mark themselves unmarried and 18% of them declared to be married. Total no of the marital status is 17 and 83 respectively. The overview of the respondents' structure according to the martial status and education is shown in table above. In the end of the questionnaire respondents were also ask about the product category they bought online. Most respondents buy clothes and accessories (66%), followed by electronic items (13%), food (8%), books and magazine (4%), others items (4%), cosmetics and tickets (4%) and only 1% bought jewelry online. It is apparent from the respondent data that majority of the respondent bought clothes and accessories and electronic items as they account for over 75% of overall category of product bought. The key findings from this demographic analysis are that the respondents who will drive this research result and finding are male youngster fall under age category of 20-25, having education of bachelors with unmarried marital status and they usually buy clothing and accessories online. The difficulty these respondents have faced will help drive this research and contribute in better or change delivery in e-commerce industry.

**Table 4.1**

Particulars	Categories	No	%
Age	20-25 years	220	58%
	26-30 years	135	35%
	31-35 year	15	4%
	36-40 years	6	2%
	41-45 years	6	2%
	46-50 years	2	1%
Education	Metric	1	0%
	Intermediate	18	5%
	Bachelor	166	43%
	Master	151	39%
	MPhil	47	12%
Marital Status	Other	3	6%
	Married	71	18%
Gender	Un Married	315	82%
	Male	260	67%
Category of Product Bought Online	Female	126	33%
	Clothing and Accessories	255	66%
	Books and Magazines	17	4%
	Cosmetics	7	2%
	Furniture	1	0%
	Jewelry	3	1%
	Electronics	51	13%
Food	29	8%	

	Toys	1	0%
	Tickets-Air, Movie or event	6	2%
	Others	16	4%

The ability of the questionnaire to measure what it intends to measure is analyzed through validity. The instrument in order to be valid must include a set of items to ensure that it taps the concepts in order to be valid and the results of Cronbach  $\alpha$  should have values in the range of 0.60–0.87. In order to check the validity reliability analysis was performed using SPSS, Tables 4.2 present the reliability analysis of the items related to each variable with Cronbach’s alpha value of each variable used in this research. During the process of reliability analysis three items of logistics (independent variable) have Cronbach’s Alpha value =  $.762 > 0.60$ , the result supports internal consistency of the items amid the responses. Three items of customer service support (independent variable) have Cronbach’s Alpha value =  $.746 > 0.60$ , here response is also internally consistent. In the case of product quality and return policies four items each, their Cronbach’s Alpha values are =  $.781 > 0.60$  &  $.803 > 0.60$  respectively. Items of dependent variable which quality of delivery in e-commerce are consistent and passed the reliability criteria Cronbach’s Alpha value =  $.824 > 0.60$ .

**Table 4.2 Reliability statistics**

Variables	No. of items	Cronbach’s alpha
Logistics	3	.763
Customer service support	3	.746
Product quality	4	.781
Return Policies	4	.803
Quality of delivery in e-commerce	4	.824

Confirmatory factor analysis was used to measure the items validity. Results suggest that total eighteen items of independent and dependent variables are loaded in their respective column and no item was eliminated due to irrespective loading. Items factor loading related to each independent and dependent variable are loaded in component of relative principal. According to standard factor loading value should be greater than 0.40 of loading so it will be in relative component of principal. There are total eighteen components as a whole, 3 items belong to logistics, while 3 of it are for customer service support, product quality also consists of 4 items, 4 items are belonging

to return policy and finally the dependent variable items are consisting of 4. As per the standard and rules factor loading values among all components range from 0.481 to 0.856. All values are automatically above 0.40 which mean no cross loading is discounted because of the value less than 0.40 criteria. The outcome of this analysis is satisfactory and fulfill the criteria of validity.

**Table 4.3**

Rotated Component Matrix <sup>a</sup>					
Items	Logistics	Customer Support Service	Quality of Product	Return Policy	Delivery Quality
The product which I ordered from website was delivered to me on time.	.546				
The product is well wrapped when delivered.	.666				
The product delivery was on time which is desired.	.778				
I received timely information regarding the status of my order		.732			
I received support from the customer care for returning the product		.798			
The website provides me with the correct order and delivery information.		.931			
The product delivered to me was in good condition.			.547		
The product delivered to me matches the			.533		

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description given on the website.					
The product delivery was accurate and completely matched the quantity specified in the order.			.821		
The product delivered to me matched my requirements			.842		
The return policies of the portal were simple and easy to understand				.751	
Returning the product was smooth and hassle or trouble free.				.867	
After returning the product, the refund was easy and processed on time.				.745	
The warranty claims for the product bought was trouble free				.451	
My preferred website resolves any 'service request' according to my satisfaction.					.675
I usually prefer to wait longer for my goods if the online website bundle them together into					.707



one delivery.					
My preferred website provides the prompt response of my Queries.					.832
Please rate the overall e-commerce quality that you had expected from your preferred website.					.581

### Analysis of Hypothesis

Table 4.4 demonstrates the result of correlation test. From the table it can be seen that the coefficient value for logistics and quality of delivery is 0.422, which indicate that there is a moderate relationship between logistics and quality of delivery in e-commerce, in conjunction to this the p value of this relationship is equal to 0.000 at 0.05 confidence interval level (2-tail) which indicates that the relationship is significant, this result supports  $H_{a1}$ : There is a significant relationship between logistics and quality of delivery in e-commerce. The empirical result specifies that logistics and quality of delivery have positive relationship which means improving logistics performance will improve delivery quality in e-commerce. In order words we can say that by giving superior quality transportation meaning logistics service effect positively on delivery quality in online buying and selling. When customers get what they want on time, so it helps enhance company delivery quality and which ultimately leads towards customer satisfaction and brand loyalty. Another correlation test result is also demonstrated in Table 4.4, the table represent the coefficient value for customer service support and quality of delivery is 0.386, which indicate that the correlation is low meaning low relationship between customer service support and quality of delivery in e-commerce, in conjunction to this the p value of this relationship is equal to 0.000 at 0.05 confidence interval level (2-tail) which indicates that the relationship is significant, this result supports  $H_{a2}$ : There is a significant relationship between customer service support and quality of delivery in e-commerce. The empirical result specifies that

customer service support and quality of delivery have positive relationship which means improving customer service support will improve quality of delivery in e-commerce. In order words we can say that as long as healthier service to customer has a positive impact on the quality of delivery in e-commerce. When customers are provided with a proper customer service support on time, so it helps enhance company delivery quality in e-commerce and good customer support not on affect delivery quality but also customer satisfaction and retention. Table 4.4 also answers the third research hypothesis, the coefficient value for logistics and quality of delivery is 0.488, which indicate that there is a moderate relationship between product quality and quality of delivery in e-commerce, in conjunction to this the p value of this relationship is equal to 0.000 at 0.05 confidence interval level (2-tail) which indicates that the relationship is significant, this result supports H<sub>a3</sub>: There is a significant relationship between product quality and quality of delivery in e-commerce. The empirical result specifies that product quality and quality of delivery have positive relationship which means if the quality of product deliver to customer is satisfactory so it will help in improving quality of delivery in e-commerce. In order words we can say that providing the product what the customer perceive to get meaning what he sees on the website will contribute in better quality of delivery in e-commerce. When customers get what they, so it helps not only in enhancing company delivery quality but also satisfaction of customer and retention.

**Table 4.4**

Pearson Correlation					
Quality of delivery		Logistics	Customer Service Support	Product quality	Return policy
	Coefficient	.422**	.386**	.488**	.401**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	386	386	386	386

\*\* Correlation is significant at 0.05 level (2 tailed);

Lastly Table 4.4 also demonstrates the result of correlation test for return policy and quality of delivery in e-commerce. The table illustrate the value of coefficient for return policies and quality of delivery is 0.401, which indicate that there is a moderate relationship

between return policies and quality of delivery in e-commerce, in conjunction to this the p value of this relationship is equal to 0.000 at 0.05 confidence interval level (2-tail) which indicates that the relationship is significant, this result supports  $H_{a4}$ : There is a significant relationship between return policies and quality of delivery in e-commerce. The empirical result specifies that return policies and quality of delivery have positive relationship which means improving return policies will improve quality of delivery in e-commerce. In order words we can say that providing better and clear and customer friendly return policies is positively associated with the delivery quality in e-commerce. When customers have option to return what they have bought in case of issue, so it helps enhance company delivery quality and which ultimately leads towards customer satisfaction.

Table 4.6 illustrates the regression model summary, the degree of goodness fit of regression model is given in the model summary result section. The R value is (0.634), which indicate that there is a moderate high impact of logistics, quality of product, return policies and customer service support on delivery quality of e-commerce. The value of R<sup>2</sup> is (0.609) which states that only 60% of variation in dependent variable which delivery quality in e-commerce can be elucidated by all the four-independent variable in this regression model. It is also observed that Significance F value is less than 0.000 which states that combined effect of all independent variable is significant.

**Table 4.6**

<b>Regression Coefficients &amp; Model Summary</b>					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.345	.201		1.893	.060
Logistics	.429	.301	.521	2.411	.000
Customer Service Support	.421	.421	.710	2.001	.000
Product quality	.482	.192	.414	3.456	.000
Return Policies	.427	.222	.508	2.122	.000
a. Dependent Variable: Quality of Delivery in e-commerce					

Model	R	R Square	Adjusted R Square	F	Sig.
1	.634 <sup>a</sup>	.609	.594	80.338	.000b
a. Predictors: (Constant)					

Table 4.6 illustrates the details of the regression coefficient result of the assessed variables and significance level of all the independent variables. For logistics, quality of product, return policies and customer service support the table show coefficient value (0.429), (0.482), (0.427) and (0.421) respectively. In conjunction to this if we analyze the significance values of each variables so it is same for all i.e.  $p=0.000$ , of logistics, quality of product, return policies and customer service support respectively. So, for every unit increase in logistics, quality of product, return policies and customer service support a 0.429-unit, 0.482-unit, 0.427-unit and 0.421-unit increase in delivery quality in e-business. The result provide evidence that there is positive and significant impact of logistics, quality of product, return policies and customer service support on quality of delivery in e-commerce. According to the results obtained, regression equation is as follows:

$$QOD = 0.345 + 0.429(L) + 0.482(QOP) + 0.427(RP) + 0.421(CSS) + e$$

Here 0.345 is the value of constant, 0.429, 0.482, 0.427 and 0.421 are elasticizes of logistics, quality of product, return policies and customer service support respectively. QOD refers to quality of delivery in e-commerce that is our dependent variable, whereas e is error term.

## 5. Conclusion

In developing countries e-business is projected to be the main factor contributing in economic growth. In context of Pakistan the introduction of e-commerce was not easy and takes place in 1999. In economies which are growing and emerging, here e-commerce has now already achieved overwhelmed success and has greatly influenced logistics and supply chain management. The logistics of online buying and selling business comprise of 3 key aspects, the most important stage includes the fast delivery of orders from distribution centers to customers. The issue regarding the product and service quality delivery is the main factor in online business, at the same point the success of e-commerce model delivery is mainly based upon the internet service provider, making it the backbone of e-commerce business model (Santos, 2003).

To improve quality of delivery in e-commerce the management may have to undertake effective supply chain strategies. The key determination of this investigation is to inspect delivery quality factors i.e. customer service, logistics, quality of product and policies

of return and its influence on delivery quality in e-commerce. This study provide theoretical or empirical guidance of how these strategies can be used effectively and boost their impact on delivery quality. In way to acquire this research objective, primary data has been gathered from the respondents who buy online or do online shopping through online google form questionnaire. After data collection the study examine the impact of independent variables on quality of delivery in e-commerce. A general estimation equation is also developed based on the research findings, the data used in present research is a combination first hand and primary data.

In suggestion, the research result of current study represent that all the four factors affecting delivery quality issue in e-commerce including customer service support, logistics, quality of product and polices of return have significant and positive relationship with delivery quality of delivery in e-commerce in Pakistan. Moreover, it is found out that the key factor that influence quality of delivery is product quality it is because of the highest value of coefficient in both correlation and regression test followed by logistics, return policies and customer service support. Generally, it also understood that the product quality is the main and key factor that customer value as it the main thing why they are buying, if they didn't get what they want to buy so it will definitely affect delivery quality but also the customer satisfaction with the company.

It can be concluded that the importance and significance of delivery in e-commerce is still an unexplored topic. From the overview of the available literature, it is evident that very little researchers have conducted research on this topic worldwide and in Pakistan. Most literature consists of expert opinions and case analyses. Although this literature is abundant, it does not offer a concrete answer to the main question of this paper, i.e. the importance and significance of delivery, and its influence on customers' decision-making related to e-commerce. This study fills the potential gap in the literature by undertaking an empirical research on the key factor affecting delivery quality in e-commerce. These strategies have impacted in achieving better quality of delivery in e-commerce in Pakistan.

From research implementation viewpoint, this research will support in decision making related to supply chain strategy deployment, deciding which strategy should be used through detailed

consideration of all strategies. Managing key factors logistics, product quality, return policies and customer service support among other things in supply chain is vital for managers to boost their confidence before forming or deploying a supply chain strategy. The study has great standing as it benefits supply chain managers, especially for those who are looking to improve quality of delivery in e-commerce industry, as it is necessary to dominant factors affecting quality issues in e-commerce.

## **5.2 Research scope for future**

This research is much generic in terms of finding the delivery quality issue in e-commerce and those factors that affect quality of delivery in Pakistan but in future researcher may conduct research for finding factor affecting quality of delivery sector wise or company wise rather than overall strategies that affect delivery quality issue in e-commerce.

Furthermore, this research provides strong support that delivery quality issue in e-commerce in Pakistan can be to some degree regulate by logistics, product quality, customer service support and policies of return. These variables made this research limited to the extend to these variables as there are other factors or variables as well, so for further research and for enhancement in current research in future, other many unexplored variables should be study to quality of delivery in e-commerce in Pakistan or in any other country.

Present research has a limited scope in term of data collection and generalization as the data is only gathered from the city Karachi, Pakistan. There is a limitation which is the opportunity for future research to increase the scope of current literature for the generalizability and applicability of research result or findings.

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