

# **"DIPLOMA THESIS"**

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**Evaluating the impact of Logistics Service Quality on Customer Satisfaction  
and Loyalty: A case study of Flipkart in India**

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# **1. Introduction**

This chapter includes the background and origins of the research, as well as the background of the organization being studied. It outlines the problem statement, research questions, and objectives of the study. Additionally, the chapter provides the structure and layout of the thesis.

## **1.1 Background of the study**

In this digital era, E-commerce industry is one of the major developing industries and very popular in the world. At the same time the economy is growing quickly, the E-commerce business is becoming the most significant contributor to the overall economic growth of a nation. It plays an important role in the making it easy to purchase and sale of products or services via the Internet. E-commerce has become an essential tool for many of us to carry out activities that are required on a regular basis, such as making payments online and purchasing online. People nowadays never imagined their lives without E-commerce. Without the convenience of online shopping, daily life would be more challenging, time-consuming, and difficult to do. E-commerce has evolved into something that many of us now need, not just to showcase our lavish lifestyle (Rajendran et al., 2018).

Offering high-quality services is one of the crucial factors for being competitive in the industry today. Because a company's survival is dependent on people using its services, it is critical to give customers what they desire. As a result, the service offered must fulfill the expectations of the consumer (Meidutė-Kavaliauskienė, Vasilienė-Vasiliauskienė and Vasilis-Vasiliauskas, 2020). Logistics service quality excellence has become an essential source of competitive advantage as the number of express delivery providers on the market has grown and also contributing to customer satisfaction and further Loyalty (Liu and Liu, 2014). So, it's important for companies to evaluate and improve the quality of their logistics services based on their customers' needs and levels of satisfaction.

In today's competitive market, customer satisfaction is seen as one of the most important factors that determines an organization's performance. Knowing the degree of customer satisfaction enables a business to evaluate the effectiveness of its efforts, establish future goals, and take the

required steps to sustain or increase customer satisfaction(Muhammad *et al.*, 2017). In order to be successful in today's competitive business environment, it is essential to build customer relationships in addition to developing new products, developing customer relationships requires providing higher value to the target customers than is provided by the company's competitors(Kotler, 2000). Customers are mostly used to evaluate a company's service quality and it's clear that consumers play essential roles in the organizational process because higher levels of quality are associated with greater levels of customer satisfaction, whether a company provides good service quality or not will depend on the feedback from consumers on how satisfied they are with the items they have used. customer loyalty is a crucial part of service delivery because maintaining current customers may provide a higher profit than acquiring new ones. furthermore, creating customer loyalty has become a primary objective for many organizations, particularly those in the service industry, where high repurchase rates are connected with customer loyalty (Muhammad *et al.*, 2017).

## **1.2 Statement of the problem**

Delivering products to customers is very important in any business, and how it's done matters to the customers. Currently, people are looking for more convenience and comfort in their shopping experience, and businesses are constantly adapting their strategies to meet these customer needs. The main problem is that customers are complaining about the delivery not arriving on time, receiving damaged products, poor customer service, and other similar issues. This negatively impacts their shopping experience. Hence, researching the factors in logistics services that impact customer satisfaction can improve the quality of logistics services, enhance the shopping experience, and promote better business practices.

The rapid advancement of information and mobile internet technology has made online shopping a trend because online shopping is easy, quick, cheap, and not limited by time or place, it has changed people's shopping habits without their knowing it and becoming the dominant form of shopping in the future. When consumers choose to do their shopping online, it not only helps the growth of electronic commerce but also gives rise to new challenges and problem. There are many customers had the complaints about the personal contact, which is not surprising since sellers can't talk to customers directly when they shop online. This dissatisfaction causes many customers to



lose trust in online sellers and e-commerce. Therefore, customer satisfaction is crucial for the growth of e-commerce.

The main aim of this research is to determine the level of customer satisfaction among Flipkart online shopping using a standardized measure of logistics service quality and to determine the dimensions of logistics service quality that have the greatest impact on customer satisfaction.

### **1.3 Research Objectives**

The primary objective of this study is to investigate and understand the relationship between the logistic service quality, customer satisfaction, and customer loyalty of Flipkart online shopping. To achieve this, the study will examine the relationships between the different aspects of logistics service quality, customer satisfaction, and customer loyalty, with the purpose of determining if there is a positive correlation between these variables. The specific objectives of the study are as follows:

- To identify and measure the main dimension of logistics service quality.
- To investigate which logistics service quality dimensions, have greater affect the customer satisfaction and customer loyalty.
- To investigate the Impact of logistics service quality on customer satisfaction.
- To investigate the relationship between customer satisfaction and customer loyalty.

### **1.4 Research questions**

This thesis aims to examine and analyze the impact of logistics service quality on customer satisfaction and customer loyalty to determine what answer this logistics service quality may improve the customer satisfaction and provide valuable information to online retailers to improve their services and customer experiences. this research paper is to examine the concept of online shopping, which is becoming increasingly popular due to the convenience and comfort it provides to customers. As previous studies have suggested, if the quality of logistics services plays a significant role in determining customer satisfaction, it is important to provide empirical evidence to support this claim.

This research will answer following three questions:

- What is the impact of logistics service quality on customer satisfaction?

- What is relationship between customer satisfaction and customer loyalty?
- Which logistics service quality dimensions have the greatest effect customers satisfaction and customer loyalty.

## 2. Literature Review

This chapter provides a comprehensive overview of existing research related to service quality, logistics service quality, customer satisfaction and customer loyalty to enhance the understanding of the research topic. Through a critical review of the literature, the chapter establishes the conceptual model to guide future research for the study.

### 2.1 Service Quality

Service is described as something with an intangible quality, as opposed to goods, which have a physical shape. It is the act of delivering something of value to another individual or organization (Muhammad *et al.*, 2017). Quality can be defined as the comparison between the “expectation or prediction” and “performance or actual result”. Service quality is defined as a performance indicator that leads to customer satisfaction (Uvet, 2020). In today's competitive global economy, quality products and services are essential to the continued existence of any given business. Service quality is define an approach to managing company processes to achieve full satisfaction of the consumers, which will assist in increasing competitiveness and efficiency in the sector (Rahman, 2011).

There are many researchers described service quality, but it's still debate found among the researcher, academician, and counselor in describing service quality and measuring service quality literature.

Service quality is described as "a measure of how well the service given meets consumer expectations. delivering service excellence involves consistently meeting client expectations. In a short, excellent service quality is defined as meeting or exceeding the consumer's expectation of the service (Parasuraman, Zeithaml and Berry, 1985).

Service quality concentrate on the fact that the service must meet the requirements and expectations of the consumer(Liu and Xie, 2013). This is a strategy used by companies to try for continuous quality improvements in their processes, goods, and services. Customers will be more

satisfied with a company's service if it provides a greater quality of service, and vice versa (Wibowo, 2022).

### **2.1.1 Importance of Service Quality**

Nowadays, service quality is the most important component for the success and survival of a variety of companies. In today's competitive service industries, like transportation services, the best way to stay in business is to offer high-quality services to customers. Excellent service quality is universally acknowledged as an important corporate requirement (Parasuraman, Zeithaml and Berry, 1985). It is essential for the industry to provide service of a high quality to each individual customer for the organization to reach the customers. No matter whether an organization is in the business of producing tangible goods or providing services, service quality should always be the primary focus of marketing efforts. With the advancement, improvement technology of our society nowadays, the service markets become increasingly competitive for many businesses, and as people's living standards rise, they demand not only high-quality products but also excellent service from the companies from which they purchase goods. The topic of service quality has been addressed by many authors. So, not only is the quality of the products important for companies, but the quality of the service is also important for service providers. It is vitally important for businesses to receive positive feedback from customers regarding the quality of the services they receive (Machado, Ribeiro and Basto, 2014).

Many researcher has proven that the providing high-quality services results in the retention of current customers as well as the attraction of new customers, a reduction in operating costs, an improvement in the company's image, positive word-of-mouth recommendation, and ultimately, an increase in profitability (MaminiainaAimee, 2019). The previous research shows that the quality of service is most important for the competitive organization and measuring service quality is better way to recognize whether the services are good or bad and whether the customer would or are satisfied with this service.

### **2.1.2 Measuring service quality**

For decades, many research paper have published and examined the dimension of service quality but still is in discussion and difficult to measure because of the intangibility, heterogeneity, inseparability. This service quality model is predicated on the notion that the customer's evaluation of service quality is the most important factor. This assessment is thought of as a difference

between what the customer wants from service providers and how they think the service provider actual did (Mulat, 2017). There are many services quality models have been examined and explained.

- Technical and functional quality model
- Gap model
- SERVQUAL model
- SERVPERF model

In 1984, Gronroos creates the first service quality model, which has three dimensions: technical quality, functional quality, and corporate image (Gronroos, 1984). In 1990, Gronroos grouped the dimension of service quality into six groups which is professionalism and skills; attitude and behavior; accessibility and flexibility; reliability and trustworthiness; recovery; and finally, reputation and credibility. In 1994, Rust and Oliver introduce a model that consist of three dimensions service product, service delivery and service environment (Rust and Oliver, 2012). Then it comes SERVQUAL model which was first developed by Parasuraman in 1985 with ten dimensions tangibles, reliability, responsiveness, understanding the customers, access, communication, credibility, security, competence, and courtesy and this is the most useful and successful method for the measurement of service quality. This method has dominated both the academic, practician and industrial prospective (Parasuraman, Zeithaml and Berry, 1985). Later In 1988, they identified five dimensions which was modified of SERVQUAL model and It is the most well-known and widely used method for evaluating the overall quality of the service (Parasuraman and Zeithaml, 1988). I will focus only on SERVQUAL model because LSQ model is the modified model of SWERQUAL model.

The SERVQUAL framework is a way of measuring service quality for the service industry that was established as a result of research conducted in multiple sectors that reveals that customer satisfaction is dependent on several components rather than a single component (Zeithaml, Berry and Parasuraman, 1996). The five dimension of SERVQUAL model is Tangibles, Reliability, Responsiveness, Assurance and empathy which was modified by Parasuraman (Parasuraman and Zeithaml, 1988).

- **Tangible:** This dimension represents the physical evidence of the service, facilities, communication material, decorations and business hours, tools and equipment used to provide the service, including other customers in the service facility. Businesses that want to keep customers happy and loyal need to pay attention to characteristics of tangibles. Customers can use these characteristics to assess the quality of the services they receive right away. Businesses employ tangibles to communicate image quality and signal strength(Souffo, 2019).
- **Reliability:** It has been consistently demonstrated to be the most critical factor of perceptions of service quality. It is the ability to provide the promised service consistently and precisely and promise can be defined as delivery, service provision, pricing, and problem resolution. Customers expect to get reliable service, which means that the service is always delivered on time, in the same way, and without any problems.
- **Responsiveness:** This dimension focuses on the concept of flexibility and the capacity to tailor the service to the demands of the consumer. Specific performance is connected to the length of time customers have to wait for support, answers to queries, or attention to complaints. If a service fails, the ability to fix it quickly and with skill can make people feel very good about the quality.
- **Assurance:** This dimension is probably to be very important for services that customers think are high risk or for services they don't know enough about to be able to determine the results. This dimension refers the knowledge, politeness and to their capability to trust and confidence. Assurance dimensions represent the following some characteristics capable of delivering the service, courtesy and customer's value, effective interaction with customer(Mulat, 2017).
- **Empathy:** This dimension is based on individualized or customer service, recognizing that each customer is unique, and their demands are recognized. Several authors suggest that when customers see that their demands have been met, they become loyal because they are delighted with the service they have received. In this regard, the customer feels distinct and individual(Souffo, 2019).

## 2.2 Logistics Service Quality

Logistics has always played a supportive role in the manufacturing and consumption processes during the past many decade(Saura et al., 2008). Functions are only seen as a cost by

traditional courier services. However, beginning in the 1990s, a change occurs in the marketing strategy used to determine courier service capacity, ultimately leading in greater customer satisfaction and more loyal customer (Mentzer, Flint and Hult, 2018). According to Perrault and Russ, Logistics service quality (LSQ) was the first research that stated that everything done in logistics creates time, place, and utility. Logistics companies that provide high-quality services are a significant factor in the purchase decisions made by industrial companies. On the other hand, the study that was done at the time shows that it was done from the point of view of the suppliers of logistical services rather than the customers (Perreault and Russ, 1976).

The term "Logistics Service Quality" (LSQ) refers to a collection of performance factors that are measured by an organization's capacity to distribute products in a manner that is in accordance with the needs of the customer (Yang *et al.*, 2010). Online shopping logistics include everything from placing an order to receiving the final product (Choi, Chung and Young, 2019) and some author suggested that The LSQ is an organization's ability to deliver the service as promised, reliably and accurately, and to understand what the customer wants and what they expect (Yumurtaci *et al.*, 2018). The LSQ is a combination of the service dimensions that customers want. The quality of a service is experienced both during and after it is done. These are called functional quality and technical quality respectively. Customers' expectations should be compared to their actual experiences with regards to both functional and technical quality (Chin, Soh and Wong, 2013).

The quality of logistics services has been investigated from two distinct points of view, which is objective quality and the subjective quality. The first perspective is that quality means fitting the service to the specifications set by the service provider (Saura *et al.*, 2008). This industrial perspective of services also sees quality as an accurate assessment of all the steps and procedures required to deliver the service, equating the procedure with that of producing a product by observing the service as a tangible thing that can be observed and has characteristics that can be evaluated. In addition to, contributes to the identification of objective variables for measuring the perceptions of customers in relation to their expectations as the primary components of Logistics Service Quality (Bienstock, 1997; Mentzer, Flint and Hult, 2018), recently they have identified Logistics Service quality is an effort to understand customer satisfaction by comparing customer perceptions and actual service on various attributes. on the other hand, when quality is evaluated from the consumer's subjective standpoint, the evaluation of quality shifts from the manufacturer

to the customer. According to this definition, service quality is "a worldwide judgment or attitude towards the superior character of the service" (Saura *et al.*, 2008; Chin, Soh and Wong, 2013).

### **2.2.1 Logistics service quality model**

In an online shopping environment, logistics services quality is strongly connected to customers, LSQ is defined as meeting the needs of customers who receive logistics services. We are currently conducting research with a modified version of the SERVQUAL model (Parasuraman, Zeithaml and Berry, 1985; Mentzer, Flint and Hult, 2001). There are numerous research which is done and empirically investigate the five dimension of SERVQUAL, In order to develop scales for evaluating the effect of logistics service quality on customer satisfaction, several academics have expanded on Parasuraman's work (Lehtinen, 1991; Bienstock, 1997). The two components of Logistic Service Quality are marketing customer service and physical distribution service. Moreover, according to (Saura *et al.*, 2008), there are two perspectives, objective and subjective, in logistics service quality: the objective perspective is concerned with physical distribution, whereas the subjective perspective is concerned with customer satisfaction in logistic service (Uvet, 2020). Mentzer established the identification components of LSQ that were the most detailed and relevant. A set of dimensions for measuring LSQ have been identified through analysis of these components and other significant contribution from these references (Thai, 2013). The nine components of LSQ are personnel contact quality, order release quantities, information quality, ordering procedures, order accuracy, order condition, order quality, handling of order discrepancy, and timeliness. These nine components are divided into two categories: technical quality and functional quality. Technical quality refers to the service outcome, while functional quality refers to the service delivery process. The technical component of logistics service quality is physical distribution service quality, and the functional component is delivery process quality (Mentzer, Flint and Hult, 2001).

### **2.2.2 Dimensions of Logistics service quality**

It is very important to investigate the quality of logistics services, which should be evaluated by customers (Thai, 2013). These dimensions are interrelated and can vary in importance depending on the specific needs and priorities of different customers and industries. Effective logistics providers should strive to consistently meet or exceed customer expectations across all

dimensions of service quality. In the literature, several LSQ dimension were examined by many researchers which is present a summary in the Table 1.

*Table 1: Logistics service quality dimension (Lee and Kim, 2008)*

LSQ dimensions	Reference
Timeliness, product availability, product condition and reverse logistics.	(Revindran, Ragen and Mahmud, 2020)
Quality of information, quality of delivery, quality of order, price of delivery and customer service., timeliness	(Choi, Chung and Young, 2019)
Delivery services, reverse logistics, product quality, customer service and service recovery.	(Rajendran <i>et al.</i> , 2018)
Information quality, ordering procedure, timeliness, order condition, order accuracy, order discrepancy handling and personal contact quality.	(Alemu, 2016)
Quality of the order, the quality of delivery, customer service, and the delivery price, timeliness	(Seong Hwan, 2011)
Speed of delivery, accuracy of the delivery system, safety of delivery, ease of delivery, and personality of the delivery person.	(LeeChoongBae and Park, 2008)
Timeliness, personal contact quality, order quality, order discrepancy handling, order condition and convenience.	(Feng, Zheng and Tan, 2007)
Order placement, personnel contact quality, order release quantities, information quality, ordering procedures, order receipt, order accuracy, order condition, order quality, order discrepancy handling and timeliness.	(Mentzer, Flint and Hult, 2001)

According to the findings of the literature review, the previously mentioned studies found that information quality, timeliness, product quality, delivery service, customer service, order condition, and reverse logistics had the greatest effects on customer satisfaction. Therefore, in this study, these factors will be considered as LSQ determinants. The LSQ theory, which has been empirically validated, is used in this study. He took the concept of service quality and applied it to logistics. Nine interconnected features have been conceptualized in this model. Information



quality, ordering procedures, order release quantities, timeliness, order accuracy, order quality, order condition, order discrepancy handling, and personnel contact quality are the nine features illustrated in Figure 1 . (Flint and Kent, 2001).

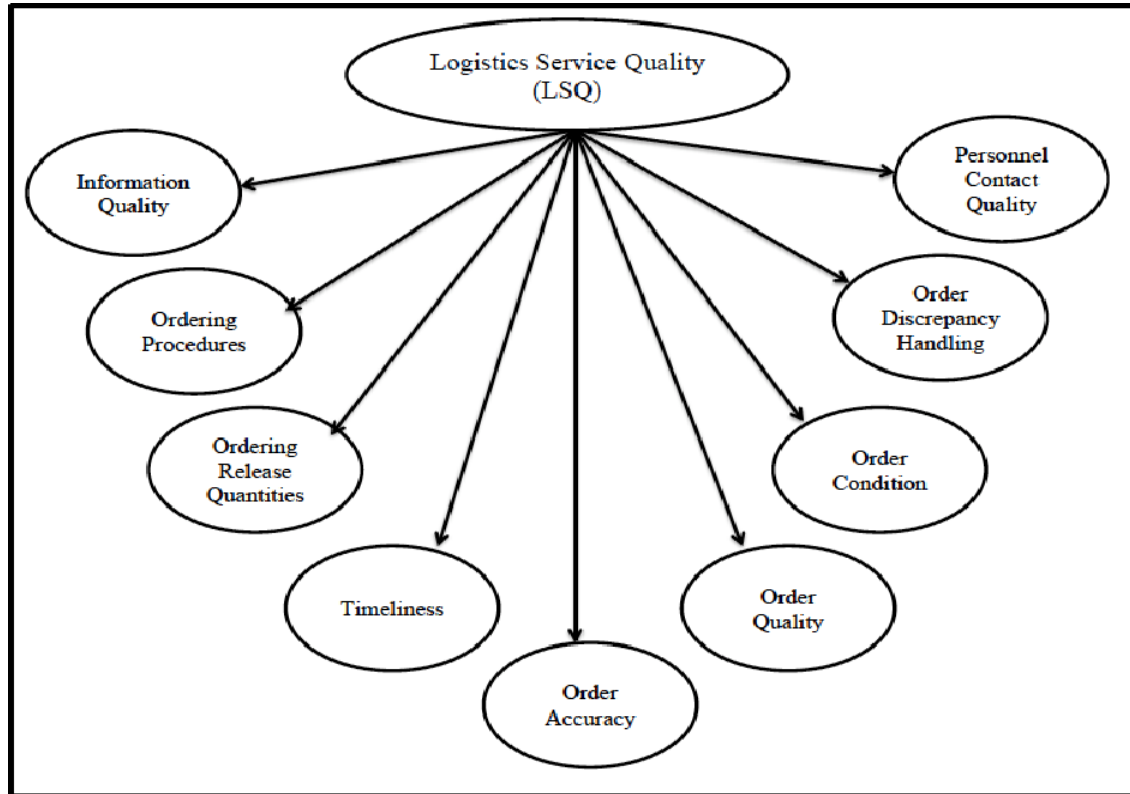


Figure 1: This diagram shows the dimensions of logistics service quality which is described in detail of each dimension(SÜRÜCÜ and ÖZİSPA, 2017)

### 2.2.2.1 Information quality

Information quality in online shopping is defined as the simplicity and accessibility of the product search and location (Choi, Chung and Young, 2019), in addition to the availability of reliable product price and easy access to specification information, product choice (Ghasemaghaei and Hassanein, 2013). According to Ghasemaghaei & Hassanein, Information plays a significant role in the decision-making process that consumers use to guide their choices because there is no opportunity for consumers to have direct physical contact with a product in an online shopping (Barusman, 2019). Alemu said that the quality of the information a retailer provides about available products reflects the customer's opinion of that information and she examined that the strongest significant positive correlation between information quality and customer satisfaction (Alemu, 2016) and this result was also proved by (Choi, Chung and Young, 2019). The quality of

information provided by online traders is one of the factors that affects the satisfaction and loyalty of customers who shop online. Consumers tend to have a better evaluation when given as much accurate information as possible. The better decisions consumers can make with less time and effort lead to higher customer satisfaction, so the more high-quality information that online traders provide, the better the decisions that consumers can make.

#### **2.2.2.2 Ordering procedure**

This refers to the procedures logistics providers follow when customers place orders for products and materials. the processes should be effective and easy to follow because Customers pay a lot of attention to this dimension (Mentzer, Flint and Hult, 2018).

#### **2.2.2.3 Ordering release quantities**

This refers to the product availability it's mean that the quantity of product that is available at any time and place required by the customer desire and this is the most important component of customer service. The ability of the supplier to make the product available to the customer is used as a measure of the capability of logistics, The supplier needs to focus much more on this component. This is because the product should be accessible in the warehouse, retail location, and distribution center. Customers are most likely to be satisfied when they can obtain the desired quantity, Therefore, it is thought that stock outs have a big effect on customer loyalty and satisfaction (Gligor, 2015). Furthermore, customers may be dissatisfied as a result of stock-outs caused by suppliers' inability to deliver the required products. This could result in financial losses for the organization.

#### **2.2.2.4 Timeliness**

Globalization and changes in technology make it easier for customers to get the products they want. These customers also do not like to wait, so they expect their orders to be completed by the promised date. This refers to that requested order should be delivered at the time agreed upon by the customer and the supplier (Hult *et al.*, 2000). This cycle time, which includes transportation time and back order time when products are inconvenient, is the most significant indicator of the delivery system's performance (Hult *et al.*, 2000; Mentzer, Flint and Hult, 2001). Time utility is the most traditional and important aspect of logistics service quality, just as the development of place utility has an impact on the perception of logistics service quality (Flint and

Kent, 2001). Many authors in many different organizations concluded and found a positive relationship between timeliness and customer satisfaction.

#### **2.2.2.5 Order accuracy**

The term "order accuracy" refers to the accuracy with which the products will be delivered to the customer. This demonstrates that customers want their order to be delivered exactly as requested in their order. The courier must ensure that the goods will reach the recipient undamaged, in the right quantity, and without delivering the wrong order (Bienstock, 1997; Flint and Kent, 2001; Mentzer, Flint and Hult, 2001). Furthermore, to discuss order accuracy, the logistics service provider must clearly understand and deliver the logistical service requested by the customer (Jang, Kwon and Kim, 2014). Some researchers have shown in previous studies that the positive relationship between order accuracy and customer satisfaction.

#### **2.2.2.6 Order quality**

Order quality refers to how well the products work. This demonstrates how the product performs in relation to the specifications provided and the needs of the customers. This differs from order accuracy and order condition dimension, the former of which considers how accurately the product will arrive in number and condition and the latter of which deals with how to handle an item if it is damaged as a result of handling. However, order quality is directly related to the manufacture of the goods. Courier is a form of transportation for the shipment of products; therefore, this dimension is not applicable because couriers are not involved in the production of the product (Saura *et al.*, 2008).

#### **2.2.2.7 Order condition**

The term order condition refers to the degree to which orders have been damaged (Bienstock, 1997; Mentzer, Flint and Hult, 2001). the supplier must communicate with the customers if the products were damaged when they were delivered. The condition of the provided goods, as well as their fast and complete delivery, are critical to the customer. The products may be damaged during transportation if they are not properly protected. Customers expect to receive the requested product in its entirety. It is indicated that damaged orders will lower customers' satisfaction with the company's logistics service. Companies have a responsibility to their customers to keep their orders in a safe and secure environment, as products may be damaged during the multiple transfer and handling steps needed to get them to the customer. Since customers

cannot utilize damaged items, suppliers or other vendors, depending on the cause of the damage, must execute corrective operations (Flint and Kent, 2001). Some researcher found the result that shows the damage product or damage order considerably lower the customer satisfaction and loyalty. Additionally, the delivery of products that are damaged will result in dissatisfied customers as well as additional costs for the company, such as the cost of retrieving and repairing the damaged products (Sutrisno, Andajani and Widjaja, 2019).

#### **2.2.2.8 Order discrepancy handling**

This refers to the supplier's reaction to the ordered products after they have been delivered to the consumers if they are inaccurate or in bad condition. (Mentzer, Flint and Hult, 2001). When a company receives a customer's order, order discrepancy handling refers to how successfully it handles any inconsistencies that arise during the order fulfillment process. It has various dimensions, from simply reporting the logistics provider of an order discrepancy to a hassle-free return of the incorrect products so the company takes steps to improve the customer's opinion of the quality of the logistics service if a customer complains about an incorrect, defective, or poor-quality product (Mentzer, Flint and Hult, 2001). Despite the logistics company's best efforts to resolve inconsistencies, buyers may occasionally experience disappointment and dissatisfaction (Sutrisno, Andajani and Widjaja, 2019). Several research found that order discrepancy handling is beneficial in determining the quality of logistics services by customers (Masudin, Jie and Widayat, 2020). Furthermore, Gaudenzi has found that the positive significant relationship between order discrepancies and customer satisfaction (Gaudenzi, Confente and Russo, 2021).

#### **2.2.2.9 Personnel contact quality**

Personnel contact quality of suppliers is an important factor of LSQ dimensions. They have a direct effect on customer satisfaction and other things, such as the accuracy, condition, timeliness, and quality of an order. Customers or people who use logistics should pay attention to service personnel that is knowledgeable, helpful, and willing to solve customers' problems (Mentzer, Flint and Hult, 2001). Communication between the customer and the contact person is critical throughout service delivery to improve the customer's impression of their expectations (Parasuraman, Zeithaml and Berry, 1985). communication with service providers is a significant role in determining customer expectation. Many authors found the result that the

personal quality has a positive impact on customer satisfaction (Alemu, 2016; Choi, Chung and Young, 2019; Hafez, Elakkad and Gamil, 2021).

### **2.3 Customer Satisfaction**

Customer satisfaction is among the most widely investigated concepts in consumer behavior. Consumer satisfaction is used as both a parameter and a result variable in many studies. Customer satisfaction is often measured by how well the product meets the customer's expectations before the purchase and how well it performs after the purchase (Mentzer and Williams, 2001). Customer satisfaction is defined as the difference between prior expectations and actual product, or service performance as perceived by the customer (Buttle, 2009). It indicates that customers' requirements are being satisfied in a pleasant manner. According to some author, any organization's ultimate objective is to meet the requirements and achieve the satisfaction of its customers. Customers' expectations and needs must be understood in order to ensure their satisfaction (Tse, Nicosia and Wilton, 1990).

According to Kotler, satisfaction is a person's experience of happiness or disappointment as a result of comparing a product's perceived performance (or outcome) to his or her expectations (Kotler, 2000). In addition, satisfaction can be connected to emotions including acceptance, pleasure, comfort, enthusiasm, and enjoyment (Hoyer and MacInnis, 2001).

Customer satisfaction is the most crucial factor or measure success in the business, which is defined as an indication of the customer's belief in the probability that a service will result in a positive feeling. Customer satisfaction is the result of the experiences customers have during the buying process, and it has a significant impact on customers' future behavior, including loyalty and online repurchases (Pereira, Salgueiro and Rita, 2016).

According to Srivastav, Customers evaluate the quality of a service by comparing their expectations with their experience. When the service given does not meet original expectations, the consumer is dissatisfied; nevertheless, when the service meets or exceeds those expectations, the client is satisfied (Srivastava, Arun and Patel, 2019). the researcher stated that the big source of increase profit is the satisfied customer (Bourdeau, Bourdeau and Cronin, 2017). Satisfied customers are more loyal to the service organization and have positive interactions with service providers, while dissatisfied customers complain more and purchase less frequently. The same definition in other terms, Customers may be strongly motivated to keep or increase their

current retention rate if they are satisfied with a service or service provider, while customers may be strongly motivated to end the interaction if they are not satisfied (Keiningham *et al.*, 2006).

Currently, customer satisfaction and LSQ are most important factor in the business environment. because the relationship between the service provider and the client is usually long-term (or is supposed to be). One of the most important aspects of service markets is customer support and relationship development (Caceres and Paparoidamis, 2007). To maintain a long-term relationship, a logistics service provider must deliver a service that meets the customers' expectations, leading in an appropriate degree of customer satisfaction. It is essential for logistics companies to demonstrate that their actions and deeds are focused on customers. According to Zairi, analysis of customer satisfaction suggests that customers comprise the goal of the company's activity, i.e., he focuses on the fact that the company's performance is dependent on its existing customers rather than service users and customers (Zairi, 2000). Furthermore, customer happiness is the most important factor for businesses to consider when trying to improve their recurring business and long-term profits (Wirtz, 2001). other authors says that it is risky to run a business that is not customer-focused on the current competitive market. Most businesses are competitive, and in order to remain on the market, they must deliver high-quality services that satisfy and keep customers. Logistics service companies should know their customers because they can develop new services that provide real value to customers and assess the values desired by customers if they have enough information and knowledge about them (Liu and Xie, 2013). customer-centric strategy better satisfies the needs of the customer. He believes that businesses that placed their customers first always kept their customers' needs first and use market data and information to develop new services and understand how the customer evaluates the services. These businesses are more customer-focused than their competitors and think that their businesses exist primarily to serve their customers (Jari, Jouni and Grant, 2010). A customer-focused business mission is better than a product-focused mission because it provides a solid platform for value development (Jayawardhena, 2010).

### **2.3.1 Customer satisfaction towards online shopping**

Customers tend to be happy with online shopping when the most important components of service quality are met or surpassed (Kong, 2015). The most challenging difficulty for online shopping is providing a good customer service experience (Hult *et al.*, 2019).

Customer should be pleased with their e-commerce shopping experience Before purchasing additional products or services online. Furthermore, consumers' perceptions of online shopping experiences that meet their expectations. Before they buy something through online shopping, most people have certain expectations about the product, the seller, the service, and the quality of the site. Therefore, all their expectations will affect how they feel and what they intend to do on the online shopping platform, which will affect their decision-making and their purchase behavior (Li and Zhang, 2002). Highly satisfied or happy customers continue to purchase the same products and brands. In addition, they will spread positive and encouraging word-of-mouth about the product or service, sometimes resulting in "consumers for life". He also stated that the increase in consumer happiness will lead to increased consumer repurchase behavior, which will eventually lead to increased consumer loyalty in Business to Consumer (B2C) behavior (Schiffman, Long and Sherman, 2015).

Online Customer satisfaction is the most important factor of purchasing behavior in the future. Customers who are satisfied with the support given by a service provider are more likely to continue using the company's services and to be loyal in the future (Rita *et al.*, 2019). Because of these reasons, customers can save money on future purchases and increase their confidence and loyalty with online Shopping systems by personalizing the screening, pre-purchase, search process. Many studies demonstrated that the strong positive relationship between logistics service quality and customer satisfaction (Blut *et al.*, 2015; Rajendran *et al.*, 2018; Rita *et al.*, 2019). Logistics providers need to know how different customer preferences are for different aspects of logistics service quality and how these aspects affect customer satisfaction levels (Mentzer, Min and Michelle Bobbitt, 2004). Logistics service quality and customer satisfaction has significantly relationship with online shopping and the trust that customers place in the shopping center, as well as the concept that this trust is one of the factors that connecting customer satisfaction to customer loyalty (Koivumäki, 2001).

### **2.3.2 Relationship between Logistics service quality and customer satisfaction**

There are many approaches to describe and explain how logistics makes customer satisfied. Most of them are based on creating time and place utilities (Russ and Perrault, 1974). Mentzer discusses about the seven Rs, which are the features of a company's product or service that create value through logistics service. For example, a company's ability to deliver the right amount of the

right product at the right place at the right time in the right condition at the right price with the right information is part of a product's marketing offering. According to this conceptualization, logistics services contribute to the value of a product (Mentzer, Flint and Hult, 2001).

The most of study's findings indicate that in order to increase customer satisfaction, organizations should provide a high level of service quality, as service quality is commonly regarded as a predictor of customer satisfaction (Saura *et al.*, 2008). The performance of logistics services is an important key component in creating customer satisfaction. Logistics excellence has been identified as an area in which firms can gain a competitive advantage due to the visible service impact on customers (Wang, 2015).

Consumer satisfaction and logistics service quality are also measured in different ways. Consumer satisfaction is a strategy that companies use to keep and attract new customers for the long term. Logistic service quality, on the other hand, is an effort by a company to meet the desires and needs of its clients in the optimal manner so that goods and services get to them on time (Yumurtacı Hüseyinoğlu *et al.*, 2020). Based on some definition, a type of service quality must be based on consumer satisfaction, with consumers who are satisfied with the service demonstrating the intention of a type of service quality. Other journals state that satisfaction influences service quality, as demonstrated by the desire to make repeat purchases (Budiono, Adirinekso and Purba, 2021).

## **2.4 Loyalty**

Loyalty is one of the most important factors to run the business in e-commerce and leading to long-term success and profitability. companies put a great deal of effort into keeping their consumers loyal because it is at the heart of their success (Dowling and Uncles, 1997). These efforts become increasingly challenging and difficult in the online business to consumer market, since online organizations such as e-stores or e-retailers compete not only with other comparable stores, but also with physical companies that offer similar goods and services (Cristobal, Flavián and Guinalú, 2007). According to Oliver, loyalty is a deep desire to buy or use a favorite product or service again and again in the future. This makes consumers purchase the same brand or product repeatedly, even though circumstances and marketing efforts could make them switch. This means, in simple terms, that loyalty means a customer prefers a certain brand or company even though there may be other satisfactory option exist (Oliver, 1997; Casaló, Flavián and Guinalú, 2010).



There are two primary types of research in loyalty which is consisting of behavioral loyalty and attitudinal loyalty. Many scholars define consumer loyalty as repurchase behavior or repurchase activity with an attitudinal factor (Dick and Basu, 1994). The behavioral loyalty strategy is based on factors such as purchase probability, purchase frequency, purchase price, repeat buying behavior, purchase order, brand switching over time, and a variety of many other aspects of purchase behavior. The attitudinal loyalty approach focuses on how a customer's mental state affects their loyalty and what they do. This is done by measuring a customer's purchase attitude. The focus of the attitude-loyalty approach is on brand recommendations, resistance to better products, willingness to pay a higher price, and the intention to purchase again (Chin, Soh and Wong, 2013). Most of the researcher found three dimension to measure the loyalty of customer, which is behavioral, attitudinal and cognitive. Then further explain attitudinal dimension includes some of dimension such as word of mouth, plans to buy, complaint behavior. In the same way, behavioral dimensions include brand loyalty, price elasticity, and the number of times a brand is bought in a certain amount of time. And cognitive dimensions consist of a preference for service firms as well as the idea that service organizations give the greatest offer and suit customer requirements (Sanayei and Taheri, 2012). Dick and Basu recommended only behavioral and attitudinal component to evaluate the loyalty where attitudinal dimension consist cognitive (informational influences on a bank), affective (how you feel about brand) and conative (brands behavioral characteristics) (Dick and Basu, 1994).

#### **2.4.1 Customer loyalty**

Customer loyalty is crucial for the company to sustain company continuity and continuity of operations; loyal customers are individuals who are incredibly satisfied with a product or service and are eager to recommend it to everyone they know. Loyal customers will eventually extend their "loyalty" to other products produced by the same producer in the following stage. In the end, they are customers who have always bought from a certain brand or company. A consumer with high loyalty is one who purchases from a specific company at a higher rate than other companies (Kotler, 2000).

Customer loyalty is the degree to which a customer's purchase from a service provider multiple times, has a positive opinion of the service provider, and thinks about using only that service provider when they need it (Gremler and Brown, 1996). Further, customer loyalty can be defined

as "the strength of a relationship between an individual's relative attitude and repeating patronage", with societal norms and environmental elements serving as "mediators" of this relationship (Dick and Basu, 1994).

Customer loyalty is crucial, and it can be achieved only when businesses carefully consider their customers, learn about their desires, and needs, and provide them with excellent service. Companies in the service industry won't be able to keep customers if they only offer tangible products or services. Instead, In order to maintain a long-term relationship with clients, they are more responsible for establishing difference by offering combinations of products and services (Weli, Idris and Yaakob, 2019). Customer loyalty is important to the company because without it, the company won't be able to make a profit in the long run. Loyalty is when a customer keeps buying the same product, even though they are free to change their buying behaviors and make their own buying decisions (Barusman, 2019).

Lastly, Loyal customers serve as a reliable source of income and information channels that connect networks of friends, family, and other potential customers to the company. another key advantage of loyal customers is that they may be less price sensitive than non-loyal customers. Businesses, particularly the hospitality industry, realized that maintaining existing consumers was a critical success factor (Petrick, 2004). Customer satisfaction is seen as a direct cause of customer loyalty or the buyer's intention to buy from the retail shop again. Many studies show that customer satisfaction is a stronger predictor of customer loyalty online and a key factor in keeping customers loyal, which means they are more likely to give positive reviews, buy the product or service again, or tell others about it. Additionally, studies have demonstrated that online consumer loyalty is positively impacted by online customer satisfaction (Hafez, Elakkad and Gamil, 2021).

#### **2.4.2 Relationship between customer satisfaction and loyalty**

It is very crucial to understand how the ideas of customer satisfaction and customer loyalty are related. Both ideas are very essential for the success of any company or organization. Customer satisfaction is one of the most important things a business needs to think about if it wants to keep customers coming back and improve its performance.

Customer satisfaction is generally seen as a major driver of long-term supplier-customer relationships. According to various researchers, customer satisfaction is a major predictor of

loyalty(Dick and Basu, 1994). The company's profit is a reflection of its positive and long-term relationships with customers. These relationships are usually based on customer satisfaction, which comes from the quality of the service provided to customers (Akil and Ungan, 2022). The level of satisfaction or unhappiness that a customer feels with their purchase may influence their actions in the future. Customers who are pleased with a product are more likely to repurchase it. Furthermore, happy customers are more likely to recommend the brand to others. As a result, many marketing professionals believe that "happy customers make the best advertising." Customers who are dissatisfied with a product can choose to return it, make a formal complaint to the company, share their negative experience with others, or take other specific steps such as not purchasing the product again or alerting their friends. As a result, e-commerce businesses must improve consumer satisfaction, optimize their purchasing experience, and motivate them to engage in more positive post-purchase activities (Luo *et al.*, 2020).

Customers that are satisfied are more likely to make repeat purchases, have less affordability, spread good word of mouth, and stay with a company. Customer satisfaction indicates how well a product or service matches the customer's expectations, whereas loyalty is determined by product or service quality and other dimensions (Chen *et al.*, 2006). Figure 2. Indicate that the relationship between customer satisfaction and customer loyalty.

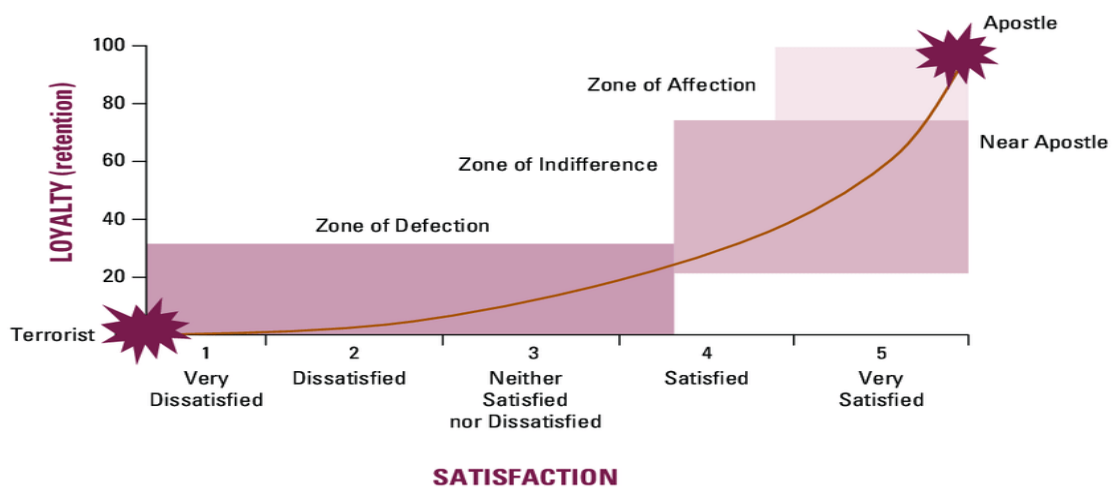


Figure 2: Relationship between customer satisfaction and Customer Loyalty, this relationship shows three zones and each zones describe the level of customer satisfaction and customer loyalty(Wirtz, 2017)

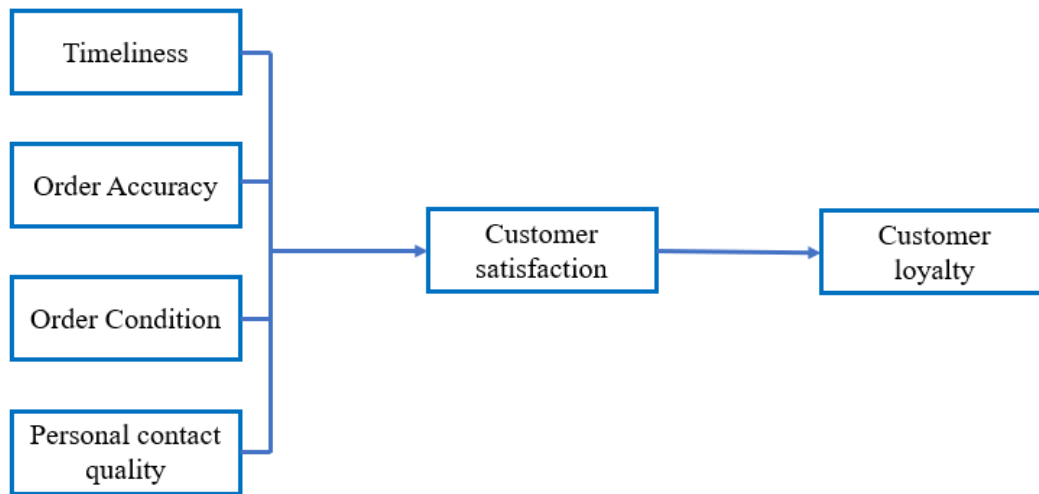
This Figure 2. shows that the existing relationship between customer satisfaction and customer loyalty. There are three major zones in the Customer satisfaction and Customer loyalty relationship: Zone of defection, Zone of indifference and Zone of Affection attachment. This figure demonstrates that the level of customer loyalty based on customer satisfaction from a product or service. The zone of defection is shows the low level of satisfaction. customers who have a high level of dissatisfaction are referred to as "terrorists." There is no question in anyone's mind that a dissatisfied customer will never have anything nice to say about the product or service provided by that particular company. Customers who have had negative experiences with a company's products or services are more likely to discourage others from trying those same items or services. The really satisfied customers are known as "apostles." They are the ones who were or are satisfied with the company's level of customer service and will be more inclined to repeat, which will make them loyal. These are the kinds of customers who will say good things about the company to others in their community. This will encourage many people to try out the company's services or products. Because loyal customers are more concerned with satisfaction, businesses must ensure that their customers are completely satisfied (Wirtz, 2017).

Based on previous studies, many of the reseacher demonstrated that the customer satisfaction is a important indicator to measure the customer loyalty. The positive impacts of satisfaction on loyalty influence customer desire to purchase again and willingness to suggest the service or item to others. Customers that are satisfied are more likely to purchase again and generate good word of mouth about the company, resulting in greater sales and market share. Because customer satisfaction influences positive repurchase intention, a consumer will remain loyal to the provider as his or her level of satisfaction rises (Soh, Chin and Wong, 2015). According to some authors, a satisfied consumer will stay and sustain a relationship with the provider. Their results demonstrated that customer retention occurs when rising business is accompanied by greater customer satisfaction (Eriksson and Lofmarck Vaghult, 2000).

## **2.5 Research model and hypothesis**

LSQ is the modified method of SERVQUAL can be used to assess the logistics service quality. Based on the literature review, this research purposes a conceptual framework showing the relationship between logistics service quality, customer satisfaction and customer loyalty. the

LSQ framework consists of nine dimensions, but this study will only focus on four dimensions, which are presented in the framework below.



*Figure 3: Proposed research model*

Based on the literature review I took the following hypotheses:

**H1:** Timeliness has a positive significance relationship with the customer satisfaction.

**H2:** Order Accuracy has a positive significance relationship with the customer satisfaction.

**H3:** Order condition has a positive significance relationship with the customer satisfaction.

**H4:** Personal contact quality has a positive significance relationship with the customer satisfaction.

**H5:** Customer satisfaction has a positive significance relationship with the customer loyalty.

### **3. Research Methodology**

This chapter focuses on the methodology used to collect relevant data related to the research problems. Additionally, it delves into the tools used for data collection and analysis in order to attain the study's objectives. This chapter provides a description of the research approach, research design, study area, sample, and sampling techniques utilized. The specific details are outlined below.

#### **3.1 Research of the company**

Flipkart is an Indian e-commerce company that has had a significant impact on the Indian retail industry and has been the subject of numerous academic studies and research projects. Flipkart is an Indian e-commerce company was founded in 2007 by Sachin Bansal and Binny Bansal, both former employees of Amazon.com, with the aim of bringing the convenience of online shopping to India. The companies headquarter is in the city of Bangalore in the state of Karnataka. Flipkart's e-commerce platform offers Indian consumers a diverse range of products including electronics, fashion, and lifestyle products. It provides localize B2C products in an emerging economy of India. Many people buy and sell different types of products from the convenience of their own homes with the help of this website. Initially, the company operated as an online bookstore and Flipkart relied on word-of-mouth advertising to spread awareness about their business. A short time after, they made their first sale on Flipkart.com, which was John Woods' book "Leaving Microsoft to Change the World" and then later expanded to sell a wide range of products, including electronics, fashion, and household goods(Rajan, 2021). Due to Indian government restrictions on foreign direct investment in B2C companies, Flipkart is registered in Singapore under a holding company. Despite this, the company has seen tremendous growth since its founding, with over 100 million registered users, 8 million monthly shipments, 100,000 sellers, and 21 warehouses. Flipkart became one of the largest e-commerce companies in India and was known for its innovation and customer-focused approach. The company introduced several industry-first features, such as cash-on-delivery, easy returns, and replacement, and same-day delivery in select cities. It also invested heavily in technology and logistics to provide a seamless shopping experience for customers(Eisner *et al.*, 2020). Over the years, Flipkart has received several rounds of funding from investors, including Tiger Global Management, Naspers, Accel Partners, and DST Global. In 2018, the company was acquired by Walmart, the world's largest

retailer, for \$16 billion. The acquisition was seen as a major milestone for both Flipkart and the Indian e-commerce industry. After the acquisition, Flipkart continued to operate as an independent entity, with its headquarters in Bengaluru, India. The company has continued to grow and expand its product range and services, and it has become a household name in India, known for its quality products and exceptional customer service (Bhaskaran and Bandoowala, 2020).

Flipkart is India's largest e-commerce platform and dominates the Indian market, holding around 37% of the market share. The company offers a wide range of products and services through its app and website. Amazon is the biggest competitor of Flipkart in India. Flipkart has not published the exact amount of its wealth, but it has a market value of over \$40 billion, which is a big amount. The company's total revenue is approximately \$6.1 billion. In addition, Flipkart also owns several subsidiaries including Myntra, PhonePe, eBay, Ekart, Jeeves, and Jabong. On July 2, 2021, the company launched Shopsy, a new app designed to allow entrepreneurs to take advantage of the benefits of digital e-commerce without having to make investments. Shopsy offers 0% commission for sellers and aims to reach 200-500 million cost-friendly customers <https://startuptalky.com/flipkart-success-story/>.

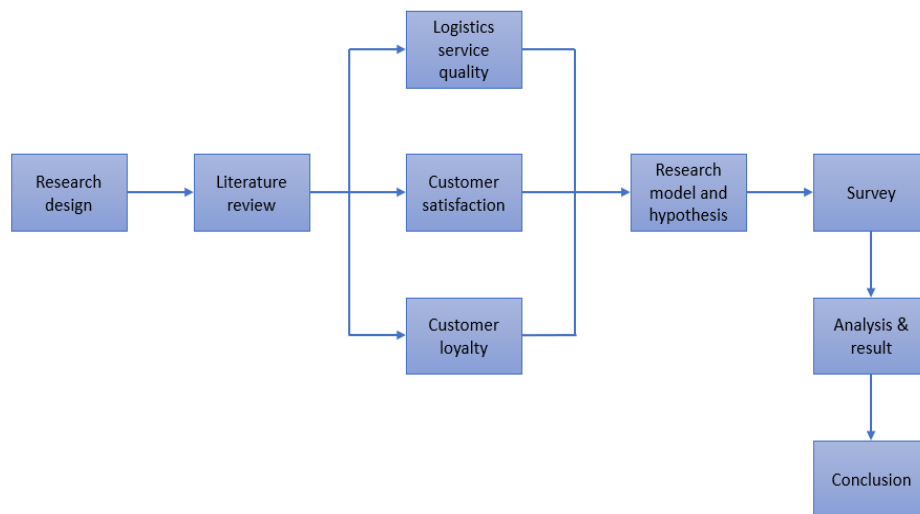
Ekart Logistics is the logistics and supply chain arm of Flipkart, India's largest e-commerce platform. Ekart was founded in 2009 and provides end-to-end logistics solutions to customers across India. The company offers a wide range of services, including order fulfillment, last-mile delivery, reverse logistics, and supply chain management. Ekart has a network of over 10,000 delivery agents and operates more than 2,500 delivery hubs and service points across India (Parameswar and Dhir, 2022). The company has been instrumental in helping Flipkart achieve its goal of delivering products to customers in a timely and cost-effective manner. Ekart also provides logistics solutions to other businesses and has partnerships with several companies in the e-commerce, retail, and FMCG sectors. The company's goal is to make the delivery process as smooth and efficient as possible for customers and businesses alike, while also reducing the environmental impact of logistics operations (Banerjee, 2019). In recent years, Ekart has made significant investments in technology, specifically in the areas of artificial intelligence and machine learning, in order to enhance its operations and provide superior service to its customer. The company is also constantly exploring new ways to optimize its supply chain operations, such as using drones and other innovative technologies.

### 3.2 Research approach

This study is based on previous research and established concepts and theories within the field of logistics service quality. Given the nature of the research, which involves evaluating the quality of logistics services of online shopping, a quantitative research design is deemed to be more appropriate and useful. This study is deductive approach, and it involves the application of general laws or principles to individual cases or instances. In this research, each respondent is considered as an individual case, and the aim is to derive general conclusion or insights from their responses. and it is used as the primary research strategy. This approach involves testing pre-existing theories and not creating new ones. The focus of the study is on quantitative research, which emphasizes the collecting and investing of numerical data.

### 3.3 Research design

A research design provides a structure that can be used for the collecting and interpretation of data. This study is a combination of descriptive, quantitative, and causal research designs. The main methodology is to conduct the survey and the quantitative analysis is focus on numerical information to get the more accurate result. The study is descriptive because it tries to describe in detail the level of customer satisfaction, customer loyalty and logistics service quality in Flipkart online shopping, providing a complete understanding of the reality of customer satisfaction and loyalty with logistics service quality in Flipkart online shopping. In addition, this research is explanatory because it provides the relationship between logistics service quality (cause) and customer satisfaction and loyalty(effect).



*Figure 4: Proposed research design (Source: Own research design)*



This Figure 4 represents how the study was conducted. A research design typically consists of several key components, including the research question, hypothesis, data collection method, sample size, and data analysis techniques. The first step is to identify a research question or problem that needs to be addressed. Next, a hypothesis or tentative explanation is formulated based on existing theories and literature. Then, a suitable data collection method such as surveys, interviews, or experiments is chosen, and a sample size is determined. The data collected is then analyzed using appropriate statistical techniques to test the hypothesis and draw conclusions.

### **3.4 Population and sample size**

The target of the population of this study consists of all customers who have visited and purchased the products from Flipkart online shopping. This study used nonprobability sampling, which means that not all parts of the population have the same chance of being chosen as research subjects. The study participants responses are obtained using a non-probabilistic sampling technique that involves the use of both purposive and convenient sampling methods. Purposive method is selective method that targets a specific type of person who holds the required information. The individuals chosen for the sample must meet specific criteria set by the researcher. Convenience sampling is an effective and efficient way of reaching the sample, as it requires less time, effort, and resources from the researchers.

### **3.5 Data collection**

This part shows the collection of data, and the data is collected from primary and secondary source. The Primary data collected from the sampled customers by using online self-administered questionnaires. the questionnaire, consisting of 18 questions, was directly given to the customers who purchase the product from Flipkart online shopping. This study was conducted in the Aligarh city, Uttar Pradesh, India. According to Cochran formula used to calculate the sample size with a 95% confidence level recommended 385 participants, but only 162 responses were obtained. However, the sample size was deemed sufficient to represent the population because previous literature suggests that sample sizes between 30 and 500 are appropriate (Hafez, Elakkad and Gamil, 2021).

### **3.5 Questionnaire development**

The survey consisted of four sections. The first section is the demographic section which is consist of 6 questions and aimed to gather basic information about the Gender, age, income and

visit reason of the respondents. The second section is designed to gather the customers' perspectives on the logistics quality service dimensions of Flipkart online shopping, using 12 questions and all the questionnaire was constructed on five-point Likert scale, ranging from “Strongly Disagree” (1) to “Strongly Agree” (5). Each dimension has 3 questions, and the 12 questions are divided among the four dimensions of logistics service quality such as timeliness, order accuracy, order condition and personal contact quality. The third section is to measure the satisfaction level which is consist of 3 questions constructed. The last and final section is to measure the customer loyalty which is consist of 3 questions and it is based on attitudinal and behavioral approach.

### **3.6 Data analysis**

In this study, the analysis is conducted using SPSS 22.0 as the primary tool. Firstly, a descriptive analysis is performed to present the demographic data of the respondents and the logistics service quality attributes. Secondly, the internal consistency of the questionnaire is tested using Cronbach's Alpha analysis. Thirdly, Pearson's correlation coefficient analysis is applied to examine the degree of correlation between logistics service quality dimensions, customer satisfaction, and customer loyalty. Lastly, linear regressions are used to determine influence of each dimension of logistics service quality on customer satisfaction and also used for impact of customer satisfaction on customer loyalty.

## 4. Analysis and results

This chapter will focus on the statistical analysis and the outcome of analysis that aligns with the research objectives and research question which is presented in previous chapter. This chapter shows that the analysis of Cronbach's Alpha, descriptive analysis, correlation analysis and regression analysis.

### 4.1 Reliability analysis

A reliability test is a statistical technique used to check the internal consistency and stability of a measurement tool such as a survey. Cronbach's  $\alpha$  alpha analysis is used to assess the internal consistency of the research survey which is developed the constructed items. this method used to test how well the survey questions are related to one another. It measures the extent to which the questions in the survey are measuring the same construct. The most common way to measure internal consistency is through Cronbach's alpha, which ranges from 0 to 1, with higher values indicating greater reliability.

*Table 2: Cronbach's alpha analysis (Reliability result)*

<b>Variables</b>	<b>Dimensions</b>	<b>Cronbach's alpha</b>	<b>No. of items</b>
<b>Logistics service quality</b>	Overall Logistics service quality	0.874	12
	Timeliness	0.762	3
	Order accuracy	0.733	3
	Order condition	0.708	3
	Personal contact quality	0.793	3
<b>Customer satisfaction</b>		0.876	3
<b>Customer loyalty</b>		0.93	3

Source: own calculation based on questionnaires

As the above (Table 2) result shows that the overall logistics service quality of Cronbach's alpha was found 0.874 and which indicate that every dimension is acceptable of items. In addition to the overall reliability test, the items within each of the seven logistics service quality dimensions are

assessed to determine whether they are measuring the same dimension or not. We can see that the timeliness, order accuracy, order condition, and personal contact quality has Cronbach's alpha 0.762, 0.733, 0.708 and 0.793 with each items has 3 scale respectively. Customer satisfaction has 3 items with Cronbach's alpha value of 0.76 and customer loyalty has 3 items with Cronbach's alpha value of 0.930. all of the dimensions, customer satisfaction and customer loyalty are accepted and high internal consistency result because all coefficients are higher than 0.7 and more toward to 1. Therefore, all constructed questionnaires found to be highly reliable and consistent for the analysis.

#### 4.2 Demographic analysis

This study includes the use of multiple queries regarding demographic profiles to collect essential information from the respondents and to understand the characteristics of general population.

*Table 3: Demographic characteristics of respondent*

Variables		Frequency (N=162)	Percentage of sample
Gender	Male	131	80.9
	Female	31	19.1
Age	Below 18	20	12.3
	18-30	136	84
	31-45	4	2.5
	above 45	2	1.2
Occupation	Student	117	72.2
	Private employed	30	18.5
	Government employed	6	3.7
	unemployed	7	4.3
	Other	2	1.2
Income per month (in INR)	Less than 10k	76	46.9
	10k - 30k	32	19.8
	30k - 50k	18	11.1
	Above 50k	22	13.6
	Other	14	8.6

Source: own calculation based on questionnaires

The total 6 variable related demographic were asked to respondents in this study such as gender, age group, occupation, income per month (in INR), type of product do you usually purchase from

Flipkart online shopping and customer purchase frequency time. The general demographic characteristics of respondents are examined using descriptive statistics such as frequency distribution. we can see the frequency table of age, gender, occupation, and income discussed below.

According to Table 3, a total of 162 respondents participated in the survey and filled it out the questionnaires. There were male respondents 131 with accounting for 80.9% and dominated of the Sample, the female participants numbers were 31 which represent 19.1% of the total. Regarding the age group, most of the respondents were aged between 18 to 30 age group which represent 72.2% of the total respondents. Specifically, 12.3% of the participants were in the age group of below 18-year-old. The smallest percentage of the sample was 31-45 years old, who represented only 2.5% and the remaining respondents 1.2% were above 45-year-old. We can see the occupation status of the respondents, majority of the respondent 72.2% were student from out of total, 18.5% were private employed, 4.3% were unemployed, 3.7% were government employed and remaining the respondents were other such as trader, own business. In term of Income of respondents, the highest percentage 46.9% of respondents were earning month income less than 10k INR, 19.8% respondents earned between 10k-30k INR, 11.1% respondents were earning between 30k-50k INR, and 13.6% respondents earned more than 50K INR. Remaining respondents 8.6% were other they answered have no income.

#### **4.2.1 Respondents purchasing behavior**

To determine the purchasing behavior of respondents we need to know about how often they visited and how familiar they were with the company.

According to the below Table 4, the result shows that majority of the respondents (41.4%) purchase Clothes and shoes out of total participants, 25.9% of respondents purchase usually Smartphones and laptops products, 20.9% of respondents purchase usually electric products, 8.0% of respondents purchase cosmetics product from Flipkart online shopping. Remaining the 7% respondents were other and they purchase the product such as books, decoration, grocery...etc.

Table 4: Respondents purchasing behavior

Variables		Frequency	Percentage
Which type of product do you usually purchase from Flipkart online shopping?	Smartphones and Laptops	42	25.9
	Electric products	33	20.4
	Clothes and shoes	67	41.4
	Cosmetics	13	8
	Other	7	4.3
How many times do you shop online in a month?	1 - 2 times	117	72.2
	2 - 3 times	30	18.5
	5 - 6 times	7	4.3
	above 6 times	8	4.9

Source: own calculation based on questionnaires

Followed by regarding the frequency of shopping visit, most of the participant (72.2%) are shopping between 1 to 2 times through Flipkart online shopping in a month, 18.5% participants are shopping monthly between 2 to 3 times, 4.9% participants are shopping more than 6 times in a month. The result indicates that all the respondents are familiar to Flipkart online shopping.

#### 4.3 Correlation analysis

Correlation analysis is a statistical technique used to examine the relationships between variables and determine the strength and direction of the relationship between them. Correlation coefficients range from -1 to 1, where -1 indicates a negative correlation, 0 indicates no correlation, and +1 indicates a positive correlation. The sign of the correlation coefficient indicates the direction of the relationship, while the absolute value indicates the strength of the correlation. According to Dancey and Reidy (2004), a correlation result of 0 suggests no correlation between variables, while a result between 0.1 and 0.3 indicates a weak correlation, a result between 0.4 and 0.6 indicates a moderate correlation, a result between 0.7 and 0.9 indicates a strong correlation, and a result of 1 indicates a perfect correlation.

#### 4.3.1 Correlation analysis between logistics service quality dimensions and customer satisfaction

The correlation coefficient used to investigate the relationship between logistics service quality dimension and customer satisfaction and discussed below.

*Table 5: Correlation analysis between Logistics service quality dimensions and customer satisfaction*

<b>Correlations</b>						
		<b>Timeliness</b>	<b>Order Accuracy</b>	<b>Order condition</b>	<b>Personal contact quality</b>	<b>Customer satisfaction</b>
<b>Timeliness</b>	Pearson Correlation	1	.593**	.484**	.540**	.635**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	162	162	162	162	162
<b>Order Accuracy</b>	Pearson Correlation	.593**	1	.557**	.466**	.581**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	162	162	162	162	162
<b>Order condition</b>	Pearson Correlation	.484**	.557**	1	.507**	.539**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	162	162	162	162	162
<b>Personal contact quality</b>	Pearson Correlation	.540**	.466**	.507**	1	.622**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	162	162	162	162	162
<b>Customer satisfaction</b>	Pearson Correlation	.635**	.581**	.539**	.622**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	162	162	162	162	162

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

Source: own calculation based on questionnaires

From the above Table 5, we can see that there is a positive moderate relationship between the dimensions of logistics service quality and customer satisfaction. As the table shows, Timeliness dimension have moderate significant positive relationship with the customer satisfaction and the coefficient value is 0.635 at the significant level 0.01. order accuracy dimension have moderate significant positive relationship with the customer satisfaction and the coefficient value is 0.581 at the significant level 0.01. order condition dimension has moderate significant positive relationship

with the customer satisfaction and the coefficient value is 0.539 at the significant level 0.01. personal contact quality dimension has moderate significant positive relationship with the customer satisfaction and the coefficient value is 0.622 at the significant level 0.01. so we can conclude that the all the dimensions of logistics service quality have positive significant correlation with the customer satisfaction. According to their study, order condition has the lowest score of correlation with the customer satisfaction. However, since a positive correlation is observed between all dimensions of logistics service quality and customer satisfaction, it can be said that there is a positive relationship between logistics service quality and customer satisfaction. In other words, it implies that the dimensions (Timeliness, order accuracy, order condition and personal contact quality) of logistics service quality of Flipkart online shopping improves, there is a corresponding increase in customer satisfaction.

#### 4.3.2 Correlation between customer loyalty and customer satisfaction

The relationship between the customer loyalty which deals with the tendency of a customer to repeatedly purchase products and customer experience. The analysis was done by using correlation analysis below.

*Table 6: Correlations between Customer satisfaction and Customer loyalty*

Correlations			
		Customer Loyalty	Customer satisfaction
<b>Customer Loyalty</b>	Pearson Correlation	1	.811**
	Sig. (2-tailed)		0.000
	N	162	162
<b>Customer satisfaction</b>	Pearson Correlation	.811**	1
	Sig. (2-tailed)	0.000	
	N	162	162
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: own calculation based on questionnaires

According to Table 6, It can be seen that there is strong positive relationship between customer satisfaction and customer loyalty because Pearson correlation coefficient value was 0.811 at the 0.01 level of significance and coefficient value is going towards 1.



#### 4.4 Regression analysis

Regression analysis is a statistical method that involves the examination of two or more independent variables to forecast the dependent variable. It is an effective tool that helps researchers to determine the factors that can predict the dependent variable, as well as the individual influence of each independent variable and the extent to which they affect the dependent variable (Revindran, Ragen and Mahmud, 2020).

##### 4.4.1 Impact of logistics service quality dimensions on customer satisfaction

This analysis used the following dimensions of logistics service quality (Timeliness, order accuracy, order condition and personal contact quality) which is the independent variable and customer satisfaction is the dependent variable. All the variables are measured on scale. This analysis will show the influence of dimensions of logistics service quality on customer satisfaction below.

*Table 7: Model summary of regression analysis between logistics service quality dimension and customer satisfaction*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748 <sup>a</sup>	.559	.548	.667
a. Predictors: (Constant), Personal contact quality, Order Accuracy, Order condition, Timeliness				

Source: own calculation based on questionnaires

According to Table 7, shows that the information about how the variable relate to another variable and also determine the model how well a fit regression model, so the table provides the value of R, R square, adjusted R square and standard error of estimate. Column R represent the multiple correlation coefficient so it can be measure of quality of prediction of dependent variable. So, in the table 7, we can see the value of R is 0.748 so it's mean that the strong positive relationship between them because range value of R is -1 to +1 so the value of R is tending to 1. Second column shows that R square which is represent the coefficient of determination. Coefficient of determination is the proportion of the dependent variable's customer satisfaction variation explained by the independent variable dimensions of logistics service quality. you can see that the value of R square is 0.559 it's mean that our independent variable dimensions of logistics service quality explain only about 55.9% of the variability of our dependent variable customer satisfaction.

the value of adjusted R square is 0.548 it's mean that the model is explain 54.8% and the model is approx. fit. R and R square is seeming like tell us about the how well regression fit model, but it does not talk about the whole story do we need to understand about all the table like Coefficients, ANOVA, and other statistics.

*Table 8: ANOVA Table of regression analysis between logistics service quality dimension and customer satisfaction*

<b>ANOVA<sup>a</sup></b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>1</b>	<b>Regression</b>	88.492	4	22.123	49.810	.000b
	<b>Residual</b>	69.730	157	.444		
	<b>Total</b>	158.222	161			
a. Dependent Variable: Customer satisfaction						
b. Predictors: (Constant), Personal contact quality, Order Accuracy, Order condition, Timeliness						

Source: own calculation based on questionnaires

Table 8, represent the analysis of variance (ANOVA) it shows that whether our regression model is significant predictor or not of the outcome variable. We can see in the ANOVA table the value of F-ratio is 49.810 at F (4, 157) and the significant value (p-value = 0.000) is less than 0.05 so it's mean that our model is significantly predict for the dependent variable customer satisfaction. Overall, the regression model is good fit for the data, and we can say that the regression model is significantly predict the customer satisfaction.

Table 9, The coefficients table shows that coefficient and significance of model it tells us whether the predictors had a meaningful impact on the model or not. So, we can see in the table Timeliness, order accuracy, order condition and personal contact is statistically significant because significance value (p-value) of Timeliness, order accuracy, order condition and personal contact quality is 0.000, 0.009, 0.045 and 0.000 less than 0.05 respectively. it's mean that all the explanatory variable contribution to explaining the customer satisfaction. It shows also estimate of the intercept or constant value is 0.206 and this constant can be interpreted as the average predicted value of the dependent variable customer satisfaction if all the independent variable is zero. In the data set dimensions does not have zero value so our interpretation is not real only based on intercept.

Table 9: Coefficients Table of regression analysis between logistics service quality dimension and customer satisfaction

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.206	.262		.787	.432
	Timeliness	.304	.075	.289	4.056	.000
	Order Accuracy	.201	.076	.190	2.654	.009
	Order condition	.146	.072	.138	2.022	.045
	Personal contact quality	.307	.067	.307	4.576	.000
a. Dependent Variable: Customer satisfaction						

Source: own calculation based on questionnaires

The beta value measures the degree to which each predictor variable affects the outcome or dependent variable. This implies that a larger beta value indicates a greater influence of the predictor variable on the dependent variable. The value of dependent variable is the beta value, and it shows change in independent variable, whenever independent variable changes, the change happens also in the dependent variable. The standard coefficients between customer satisfaction and Timeliness are (Beta= 0.289,  $p < 0.05$ ), customer satisfaction with order accuracy (Beta= 0.190,  $p < 0.05$ ), customer satisfaction with order condition (Beta= 0.138,  $p < 0.005$ ) and customer satisfaction with personal contact quality (Beta= 0.307,  $p < 0.005$ ). it's mean that the impact of each dimension of logistics service quality on customer satisfaction is positive and significant. It can also be seen that the personal contact quality has the highest value of beta (Beta= 0.307) it's mean that this variable is the strongest influencing factor of customer satisfaction in Flipkart online shopping and order condition has least value of beta is (Beta= 0.138) which means that the weakest influencing factor of customer satisfaction.

#### 4.4.2 Impact of customer satisfaction on customer loyalty

The analysis was conducted using only two variables, customer satisfaction and customer loyalty. In this study, customer satisfaction was considered the dependent variable, while customer loyalty was regarded as the independent variable. This analysis will identify the impact of customer satisfaction on customer loyalty.

Table 10: Model summary of regression analysis between customer satisfaction and customer loyalty

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
<b>1</b>	.811 <sup>a</sup>	.657	.655	.615
a. Predictors: (Constant), Customer satisfaction				

Source: own calculation based on questionnaires

As the table 10, shows that value of R is 0.811 so it's mean that the strong positive relationship between the customer satisfaction and customer loyalty because range value of R is -1 to +1 so the value of R is tending to 1 and the value of R square is 0.657 it's mean that customer satisfaction explains only about 65.7% of the variability of our dependent variable customer loyalty. the value of adjusted R square is 0.655 it's mean that the model is explain 65.5% and the model is fit.

Table 11: ANOVA Table of regression analysis between customer satisfaction and customer loyalty

<b>ANOVA<sup>a</sup></b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>1</b>	<b>Regression</b>	115.819	1	115.819	306.636	.000b
	<b>Residual</b>	60.433	160	.378		
	<b>Total</b>	176.252	161			
a. Dependent Variable: Customer Loyalty						
b. Predictors: (Constant), Customer satisfaction						

Source: own calculation based on questionnaires

The above table 11, demonstrate that the result of analysis of variance (ANOVA) which indicate that that whether our regression model is significant predictor or not of the outcome variable The F-ratio value is 306.636 at F (1, 160) and the p-value of 0.000 is less than 0.05, indicating that our model is a significant predictor of the dependent variable customer loyalty. Therefore, we can conclude that the regression model is a good fit for the data and can significantly predict customer loyalty.

Table 12: Coefficients Table of regression analysis between customer satisfaction and customer loyalty

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.562	.191		2.946	.004
	Customer satisfaction	.856	.049	.811	17.511	.000
a. Dependent Variable: Customer Loyalty						

Source: own calculation based on questionnaires

According to coefficients Table 12 of regression analysis, there is a significant positive relationship between customer satisfaction and customer loyalty in Flipkart online shopping, with a p-value of 0.00 which is less than 0.05. we can see the standard coefficients between customer satisfaction and customer loyalty are (Beta= 0.811,  $p < 0.05$ ). This suggests that, based on the model, customer satisfaction has a positive and significant impact on customer loyalty. Overall, the regression analysis indicates that the independent variables included in the model have a significant and positive effect on the dependent variable.

#### 4.5 Hypothesis testing

The hypothesis tests have been summarized after analyzing all the survey results.

Table 13: Hypothesis result

Hypothesis	Status
H1	Accepted/supported
H2	Accepted/supported
H3	Accepted/supported
H4	Accepted/supported
H5	Accepted/supported

Source: own construction

The result of hypothesis Table 13 showed that H1, H2, H3, H4 and H5 have an important role in Flipkart online shopping proved as per hypothesis testing using regression analysis and correlation. This result showed that the dimensions of logistics service quality Timeliness, order accuracy, order condition and personal contact quality are significant and have positive effect with the customer satisfaction. Customer satisfaction has a positive significant impact with the customer loyalty as well.

**H1:** Timeliness has a positive significance relationship with the customer satisfaction.

Hypothesis H1 was accepted because the significant value of p-value is less than 0.05 and the estimated coefficient of Timeliness is found to be positive and significant, so this hypothesis is support to idea and its state that the Timeliness has positive significance relationship with the customer satisfaction. In addition, the value of regression coefficient has been calculated as 0.289 it's showing that when all the variables are keeping constant, a one unit increase in the level of Timeliness will lead to an increase in customer satisfaction by 0.289.

**H2:** Order Accuracy has a positive significance relationship with the customer satisfaction.

Hypothesis H2 was accepted because the significant value of p-value is less than 0.05 and the estimated coefficient of Order Accuracy is found to be positive and significant, so this hypothesis is support to idea and its state that the Order Accuracy has positive significance relationship with the customer satisfaction. In addition, the value of regression coefficient has been calculated as 0.190 it's showing that when all the variables are keeping constant, a one unit increase in the level of Order Accuracy will lead to an increase in customer satisfaction by 0.190.

**H3:** Order condition has a positive significance relationship with the customer satisfaction.

Hypothesis H3 was accepted because the significant value of p-value is less than 0.05 and the estimated coefficient of Order condition is found to be positive and significant, so this hypothesis is support to idea and its state that the Order condition has positive significance relationship with the customer satisfaction. In addition, the value of regression coefficient has been calculated as 0.138 it's showing that when all the variables are keeping constant, a one unit increase in the level of Order condition will lead to an increase in customer satisfaction by 0.138.

**H4:** Personal contact quality has a positive significance relationship with the customer satisfaction.

Hypothesis H4 was accepted because the significant value of p-value is less than 0.05 and the estimated coefficient of Personal contact quality is found to be positive and significant, so this hypothesis is support to idea and its state that the personal contact quality has positive significance relationship with the customer satisfaction. In addition, the value of regression coefficient has been

calculated as 0.307 it's showing that when all the variables are keeping constant, a one unit increase in the level of Personal contact quality will lead to an increase in customer satisfaction by 0.307.

**H5:** Customer satisfaction has a positive significance relationship with the customer loyalty.

Hypothesis H5 was accepted because the significant value of p-value is less than 0.05 and the estimated coefficient of Customer satisfaction is found to be positive and significant, so this hypothesis is support to idea and its state that the Customer satisfaction has positive significance relationship with the customer loyalty. In addition, the value of regression coefficient has been calculated as 0.811 it's showing that when all the variables are keeping constant, a one unit increase in the level of Customer satisfaction will lead to an increase in customer loyalty by 0.811.

## **5. Conclusions**

This chapter discusses and concludes the result and gives the findings of the research followed by recommendations to improve the logistics service quality of Flipkart online shopping. Additionally, the chapter will discuss the explore possibilities for future direction.

### **5.1 Conclusions and recommendation:**

The study aimed to investigate the impact of logistics service quality dimensions on customer satisfaction and the relationship between logistics service quality dimensions and customer satisfaction in Flipkart online shopping. This to determine the most significant dimensions of services that affect logistics service quality and customer satisfaction. Furthermore, this research also showed that how customer loyalty is affected by customer satisfaction it's mean when customers are satisfied with a company's products or services, they are more likely to remain loyal to that company and the relationship between customer satisfaction and customer loyalty in Flipkart online shopping. The four dimensions of logistics service quality from the LSQ model, which is timeliness, order accuracy, order condition, personal contact quality was hypothesized to evaluate logistics service quality and customer satisfaction. Another hypothesis was formulated to examine the influence of customer satisfaction on customer loyalty.

Based on the result, this result showed that all the dimensions timeliness, order condition, order accuracy and personal contact quality has statistically positive significant effect on customer satisfaction. Some previous research also support this finding result (Akıl and Ungan, 2022). It was also found that customer satisfaction have strongest positive significant relationship and effect on customer loyalty.

Timeliness is now viewed as a basic requirement for every company in the logistics industry due to the rising expectations of customers. logistics companies should prioritize timely delivery to improve customer satisfaction. It's referring to the timely delivery of the ordered product to customers, as promised at the time of ordering. When the delivery date is later than expected, customers may not receive the product as intended, and may choose to switch to another company for their future purchases. it's implying that if the company provides services correctly and delivers them within the promised timeframe, customers will likely have a higher level of satisfaction with the company. They could consider investing in better logistics infrastructure and transportation



methods to ensure products are delivered on time. This could lead to increased customer loyalty and positive word-of-mouth recommendations, which could ultimately result in increased profitability for the company.

The least influencing factor of logistic service quality is order condition which had a lower impact on customer satisfaction compared to other dimensions. Order condition requires that the products ordered by customers must be delivered to them in an undamaged and intact state. To ensure this, it is important to use appropriate packaging that can withstand the handling and transportation process. It is also important to consider the duration of transportation in order to maintain the quality of the product. Additionally, special measures must be taken to prevent spoilage, particularly for products that require specific temperature conditions such as health and food products. The delivery service can be enhanced by improving the order condition aspect, which may involve providing appropriate packaging for electrical products or special packaging for glassware. This measure is important in ensuring that products are delivered safely to customers. Improving order condition, such as through better packaging and handling, could lead to higher customer satisfaction and potentially improved customer loyalty.

Order accuracy is another dimension of logistics service quality that has a lower impact on customer satisfaction compared to order condition so improving the order accuracy can lead to higher levels of customer satisfaction. This would suggest that logistics companies should focus on improving their order accuracy as a means of improving customer satisfaction, which in turn could lead to increased customer loyalty and business success. If an incorrect delivery occurs, rectifying the mistake will result in a loss of time and additional costs for the company. The customer who receives an incorrect product may remember this negative experience and may be hesitant to place another order with the same company.

Personal contact quality is found to be the most significant influencing factor of logistics service quality and has a significant relationship with customer satisfaction, it implies that logistics companies should focus on improving the quality of personal contact with customers to enhance their satisfaction levels. This could include training staff to provide excellent customer service, being friendly and helpful, and addressing customer concerns and complaints promptly and effectively. Logistics companies should ensure timely and accurate communication with their

customers, providing updates on order status, delivery times, and any issues that may arise. By doing so, logistics companies can not only improve their customers' satisfaction levels but also potentially increase customer loyalty and retention, leading to long-term business success.

This study also investigated that the customer satisfaction has a significant effect on customer loyalty and found the positive significant relationship between customer satisfaction and customer loyalty. This means that when a customer is satisfied with the services provided, they are likely to become loyal customers who will continue to use online shopping and even recommend them to others. It is important to note that customer loyalty is not only based on satisfaction, but also on the quality of service provided. As such, it is recommended that the ecommerce industry places greater emphasis on providing high logistics service quality to build customer loyalty. Logistics companies can provide personalized service by getting to know their customers and understanding their unique needs. This can lead to increased customer satisfaction and loyalty.

Finally, effective quality of logistics services have the potential to increase customer satisfaction, leading to repeat purchases and continued loyalty. Customers who are satisfied with their experience are more likely to make future purchases with the company. Therefore, it is important for companies to prioritize the delivery of high-quality logistics services to ensure customer satisfaction and loyalty.

## **5.2 Direction of future research**

Future research of logistics companies with logistics service quality can focus on several areas. One area of research could be investigating the impact of technology on logistics service quality and customer satisfaction. it is essential to examine how technology can impact logistics service quality and customer satisfaction. Future research could focus on evaluating the effectiveness of new technologies, such as automation and robotics, on logistics service quality and customer satisfaction. With the advancements in technology, there is an opportunity to improve logistics service quality, such as automating order tracking or using drones for delivery. Another area of research could be exploring the impact of employee training on logistics service quality. Well-trained employees can provide better service and improve customer satisfaction. Additionally, research could be conducted on the impact of supply chain management on logistics service quality. Effective supply chain management can lead to better inventory management,

faster delivery times, and higher customer satisfaction. Furthermore, customer loyalty is crucial for the success of logistics companies. Future research could investigate the factors that drive customer loyalty in logistics companies and develop strategies to enhance customer loyalty.

Overall, future research in logistics companies should focus on understanding the dynamics of logistics service quality, customer satisfaction, and customer loyalty to develop effective strategies to improve service quality and increase customer satisfaction and loyalty.

## 6. Summary

In a highly competitive business market of the E-commerce industry, providing high-quality services are one of the most important factors in staying in the market and Customer satisfaction is one of the most important aspects of gaining a competitive advantage in business, particularly in services. E-commerce companies must consider what their customers want because they know that if they do not meet their customers' expectations, their competitors will have an advantage in providing better services. E-commerce companies must ensure that they meet the requirements of their clients.

The main purpose of this study was to determine the level of customer satisfaction among Flipkart online shopping using a standardized measure of logistics service quality and to determine the dimensions of logistics service quality that have the greatest impact on customer satisfaction as well as to evaluate the impact of customer satisfaction on customer loyalty in order to develop better future strategy to satisfy customer and enhance their loyalty. The four dimensions of logistics service quality model i.e., Timeliness, Order accuracy, Order condition and Personal contact quality were used to determine the logistics service quality of Flipkart. primary and secondary sources of data were used to answer the research question. The primary data was collected by administering a questionnaire to customers of Flipkart online shopping who had made purchases, using a combination of purposive and convenient sampling techniques to obtain 162 responses. The collected data was analyzed using SPSS Statistics 27 and the descriptive analysis were used to investigate the demographic analysis and Correlation & regression analysis were used to investigate the causal relationship between dependent variable and independent variable.

The finding of the study shows that the positive and significance relationship between the logistics service quality and customer satisfaction it's indicate that most of the customer were satisfied with the logistics service quality of Flipkart online shopping. This study also revealed that the most influencing factor of customer satisfaction is Personal contact quality and the weakest influencing factor of customer satisfaction is Order condition. In addition, this study showed that the strongest significant impact of customer satisfaction on customer loyalty. The study recommends that the Company should focus on specially order condition and order accuracy to improve the logistics service quality dimensions and to enhance to customer satisfaction and make the customer loyal.

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## **Appendix**

### **Appendix 1.**

#### **Questionnaire for Logistics service quality, customer satisfaction and Loyalty survey on Flipkart online shopping**

Dear respondents,

The main purpose of this survey is to investigate the logistics service quality, the level of customer satisfaction and customer loyalty on Flipkart online shopping. This survey is part of my master thesis project. The data that will be collected will only be used for academic purposes and it will be anonymous and confidentially. I would be grateful if you kindly take a few minutes of your time to fill out this form with your response. It will take only 3-5 minutes only to fill in the survey form.

Thanks a lot for your kind support.

#### **Part one: Demographic information**

##### **1. Gender**

- ☐ Male
- ☐ Female
- ☐ Prefer not to say

##### **2. Age**

- ☐ Below 18
- ☐ 18-30
- ☐ 31-45
- ☐ above 45

##### **3. Occupation**

- ☐ Student
- ☐ Private employed
- ☐ Government employed
- ☐ Unemployed
- ☐ Other

4. Income per month (In INR)

- ☐ Less than 10k
- ☐ 10k - 30k
- ☐ 30k - 50k
- ☐ Above 50k
- ☐ Other

5. Which type of product do you usually purchase from Flipkart online shopping?

- ☐ Smartphones and Laptops
- ☐ Electric products
- ☐ Clothes and shoes
- ☐ Cosmetics
- ☐ Other

5. How many times do you shop online in a month?

- ☐ 1 - 2 times
- ☐ 3 - 4 times
- ☐ 5 - 6 times
- ☐ above 6 times
- ☐ Other

**Part 2: Logistics service quality dimensions**

Please show how strongly you believe the Flipkart online shopping has the feature described in the statement.

(1= Strongly Disagree, 2 = Disagree, 3 = Disagree, 4 = Agree, 5 = Strongly Agree)

Logistics service quality dimensions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Timeliness</b>					
6. Product delivered as per scheduled Time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Time is short between the pickup order and deliver to customer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Delivery time is not affected by weather condition.					
<b>Order Accuracy</b>					
9. Product delivered rarely contains wrong items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Product delivered rarely contains incorrect quantity, size, color...etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Product delivered is the same as what was ordered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Order Condition</b>					
12. Product received undamaged.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Product damage rarely during the transportation process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The product shipped with appropriate protection and packaging.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Personal Contact Quality</b>					
13. Delivery staff are very friendly when providing service to the customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Customer service employees make an effort to understand customer situation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Customer service employees have the sufficient experience to deal with customer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Part 3: Customer Satisfaction

Please indicate your level of agreement on the satisfaction statement.

(1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

Customer Satisfaction					
13. Overall the logistics service quality of Flipkart online shopping is good.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I am satisfied with this Flipkart online shopping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I would like to purchase again from Flipkart online shopping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Part 3: Customer Loyalty

Please indicate your opinion about customer Loyalty with the following statement.

(1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

Customer Loyalty					
13. I would recommend Flipkart online shopping to other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I would encourage my friends and relative to purchase product from Flipkart online shopping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I consider myself to be loyal to this Flipkart online shopping.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## Appendix 2.

### STATEMENT ON CONSULTATION PRACTICES

As a supervisor of **Mohammad Hassan** (Student's name) **DZANX3** (Student's NEPTUN ID), I here declare that the final essay/thesis/master's thesis/portfolio<sup>1</sup> has been reviewed by me, the student was informed about the requirements of literary sources management and its legal and ethical rules.

I **recommend**/don't recommend<sup>2</sup> the final essay/thesis/**master's thesis**/portfolio to be defended in a final exam.

The document contains state secrets or professional secrets: yes      **no**\*<sup>3</sup>

Place and date: **2023** year **04** month **24** day



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Internal supervisor

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<sup>1</sup> Please select applicable and delete non-applicable.

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