ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF MASTERS OF BUSINESS ADMINISTRATION

EFFECT OF SERVICE QUALITY DIMENSIONS ON CUSTOMER SATISFACTION: THE CASE OF PRIVATE PHARMACEUTICAL IMPORTERS IN ETHIOPIA

BY

YELBENEH ABAYNEH

SGS/0291/2011A

A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES, FOR THE PARTIAL FULFILMENT OF THE REQUIREMENTS FOR MASTERS OF BUSINESS ADMINSTRATION (MBA)

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YIRGALEM TADELE (PhD)

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APPROVED BY BOARD OF EXAMINERS

Dean, Graduate Studies	**Signature**
Yirgalem Tadele (Ph.D.)	**Aug, 2020**
Advisor	**Signature**
Saleamlak Mola (Ph.D.)	**Aug, 2020**
External Examiner	**Signature**
Ephrem Assefa (Ph.D)	**Aug, 2020**
Internal Examiner	**Signature**

DECLARATION

I, the undersigned, declare that this thesis is my genuine and original work; prepared under the guidance of Yirgalem Tadele (PhD). All sources of materials used for this thesis have been duly acknowledged. I further confirm has not been submitted either in part or in full to any other higher learning institution for any academic purposes.

Name: **Yelbeneh Abayneh Assefa**

Signature: 

Date of Submission: **August, 2020**

Place: **Addis Ababa, Ethiopia**

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

Yirgalem Tadele (Ph.D.) 

Advisor Signature

St. Mary's University, Addis Ababa August, 2020

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LIST OF ACRONYMS

EFDA	Ethiopian Food and Drug Authority
PFSA	Pharmaceutical Funds and Supply Agency
PLC	Private Limited Company
PSC	Pharmaceutical Supply Chain
SPSS	Statistical Package for Social Sciences software
SQ	Service Quality
SQMS	Service Quality Management

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ABSTRACT

The purpose of the study is to assess the effect of service quality dimensions on customer satisfaction in the case of private pharmaceutical importers, Ethiopia. A quantitative research approach using self-administered structured SERVPERF questionnaire was employed. A simple random sampling was used. A total of 177 responses were collected and analyzed using descriptive and inferential statistics such as mean, correlation, and regression by using SPSS version 23 as statistical tool. The result of the study showed 31.1%, 22% and 1.1% of the respondents are neutral, dissatisfied or strongly dissatisfied by the service provided by private pharmaceutical importers respectively. The findings of this study indicated that the five service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy) have a statistically significant positive relation to the overall customer satisfaction. The regression analysis showed that 78.3% of the variation on customer satisfaction can be explained by the variability of the five dimensions of service quality. The results also showed that reliability play the most important predictor role in determining the level of customer satisfaction followed by empathy, assurance, tangibility and responsiveness respectively. The research concluded that there are a significant portion of unsatisfied customers by the service provided by private pharmaceutical importers. Therefore, the researcher recommends private pharmaceutical importers to improve the quality of the service by giving emphasis on all of the five service quality dimensions.

Key Words: *Service quality dimension, customer satisfaction, SERVPERF, private pharmaceutical importer*

CHAPTER 1 INTRODUCTION

In this chapter an overview of the entire study was presented. It includes background of the study, statement of the problem, research questions, objectives of the study, significance of the study, scope and delimitation of the study, basic assumptions and organization of the study.

1.1. Background of the Study

In order to be champion in today's fierce, stiff and aggressive competition driven global business environment, delivering quality service becomes absolutely pivotal for attracting and retaining customers. In today's competitive market, delivering quality service is very important for pharmaceutical importers to not only attract new customers, but to also maintain their existing customer base and encourage repeat purchases and to be successful and survive.

Efficient pharmaceutical supply chain (PSC) management is of high importance which helps to provide drugs within the right quantity and to the end users with the suitable quality, at the right time and with optimum price to supply benefits for all the stakeholders (Jaberidoost, Olfat, Hosseini, *et al*,. 2015).

The effectiveness of a country's PSC system is a key determinant factor for the successful provision of quality healthcare and medicines to its citizens. A well-functioning pharmaceutical supply chain is one that ensures continuous availability of quality medicines to the consumer while returning accurate market demand and consumption information to the supplier (Yadav, 2015).

The quality of services rendered along the supply chain would help in developing loyal customers, resulting in enhanced business performance. Research demonstrates that service quality (SQ) has strong linkages with business performance, cost reduction, feeling of delight, trust and loyalty among partners and consequently leads to profitability (Gandhi, Sachdeva & Gupta, 2018).

Despite all the progress made in supply chain management over the past two decades, lives are still being lost in developing countries like Ethiopia as a result of inefficiencies in pharmaceutical supply management (Kohler, Pavignani, Michael, Ovtcharenko, Murru, & Hill, 2012; Nair, Morankar, Jira, & Tushune, 2010). A wide range of challenges exist in the

pharmaceutical supply chain system in Ethiopia that include legal, geographical, commercial and marketing or buyers' behavior issues.

According to Nair et al. (2010), by strengthening the private sector will play an important role in improving healthcare efficiency by catering to patients with purchasing power while reserving government resources to those that are unable to pay.

There are a limited number of studies on the PSC system in Ethiopia and the existing studies mainly focus on the public sector and program drugs (Daniel, Tegegnework, Demissie, & Reithinger, 2012; Lissanwork, 2013; Mudzteba, 2014; Suleman et al., 2016).

This study assessed the service quality of private pharmaceutical importers and the effect of service quality dimensions on customer satisfaction from pharmaceutical wholesalers' perspective. By doing so, this study tried to fill the research gap in the private sector PSC analysis with a focus on the pharmaceutical import in Ethiopia. This is a significant gap considering that around the 20% of the imported medicines supplied by private pharmaceutical importers and they are importing and supplying the brand pharmaceutical demand of the country (Ministry of Health and Ministry of Industry, 2015).

1.2. Statement of the Problem

Effective supply chain is one of the determinant factors for the success of any health sector and maximal benefits are seen with improved product availability. But one of the main challenges faced in developing countries is availing continuous supply of quality global medicines (Nair et al., 2010).

Pharmaceutical importers in Ethiopia are not able to import and distribute medicines in the right quality and quantity at the right time. A wide range of challenges exist in the pharmaceutical supply chain system in Ethiopia that include legal, geographical, commercial and marketing or buyers' behavior issues. Since Ethiopia is a landlocked country, poor transportation infrastructure is a major geographical challenge in the pharmaceutical supply chain system (Kim & Shigha, 2010). The other major challenge in the import and distribution channel in Ethiopia is shortage of foreign currency.

In addition, studies on the PSC system in Ethiopia are very limited and those that are available focus mainly on the public sector and program drugs (Daniel *et al*., 2012; Lissanwork, 2013; Mudzteba, 2014; Suleman *et al*., 2016). Most researches on service quality mainly focused on the consumers and the interaction between different parts of PSC (manufacturer-importer-wholesaler-retailers-end user) in improving the service quality received by the end user is neglected. The service received by the end user is strongly affected by the service quality of each player in the PSC. Majority of researches neglect the SQ at distributor level.

According to the result found from the study which was done on one of the private pharmaceutical importer ZAF Pharmaceutical, approximately, a tenth of the customers were dissatisfied by the service of the importer. The study reveals that the five service dimensions (tangibility, reliability, responsiveness, assurance and empathy) were positively related to the overall service quality and hence the customer satisfaction and also showed that tangibility and responsiveness play the most important role in customer satisfaction level followed by reliability, empathy and assurance. According to the result of this study, approximately 62% of the variation on the customer satisfaction can be explained by the variability of the five dimensions of service quality. Approximately, a tenth of the respondents were still dissatisfied (Melkamu, 2016).

Despite the extensive studies on the service quality in Ethiopia in different sectors, there is still a huge theoretical gap to identify the critical factors on service quality affecting the satisfaction of customers and identifying service quality dimensions which play the most important role in customer satisfaction in the pharmaceutical sector specifically at distributor level.

Therefore, this study tried to fill the research gap in the private sector PSC analysis with focus on the import and distribution channel in Ethiopia. This is a significant gap considering that 80% of the medicines consumed in Ethiopia are imported while only 20% is supplied by local manufacturers (Ministry of Health and Ministry of Industry, 2015).

In this study an attempt was made to study the factors influencing service quality at the importer to wholesaler inter-phase of the PSC and the effect of service quality on customer satisfaction.

1.3. Basic Research Questions

- Are the customers satisfied with the service quality they get from private pharmaceutical importers?
- Do service quality dimensions have effect on customer satisfaction?
- Which dimensions of service quality contribute significantly to determine customer satisfaction in private pharmaceutical importers service?

1.4. Objectives of the Study

1.4.1. General Research Objective

- The main objective of this study is to assess the effect of service quality dimensions on customer satisfaction in the case of Private Pharmaceutical Importers, Ethiopia.

1.4.2. Specific Research Objectives

- To measure the overall satisfaction level of customers with the service quality they get from Private Pharmaceutical Importers.
- To examine the effect between service quality dimensions and customer satisfaction with Private Pharmaceutical Importers services.
- To identify the service quality dimensions that has significant effect on customer satisfaction.

1.5. Significance of the Study

This research has a great deal of importance and significance for the mangers and stakeholders of private pharmaceutical importers because it provides information about the level quality of service the company is providing to its customers from the point of view of the customers. It helps them to know whether the company is delivering its promise to the customers and also it provide them insight about the gap between customer's perception and expectation of service and ways to improve them. The research also gives some insight about service quality and customer satisfaction in the Private pharmaceutical importer business. It serves as a spring board for other researchers to undertake further investigation.

Finally, this study provides policy makers with relevant information which aid in their decision-making process. The information gained from this study can serve as an important tool in the area of improving the service quality of pharmaceutical import and distribution.

1.6. Scope and Delimitations of the Study

This study only focused on the import and distribution section of the PSC and uses wholesalers as customers of private pharmaceutical importer. The study only focused on the relationship and interaction between pharmaceutical importers and wholesalers.

From the main routes of pharmaceutical import namely private and public, this study only delimited to the private section due to the main reason that the public import mainly supplies the public sectors and is not easily accessible to the private pharmaceutical wholesalers.

As the method of primary data collection, only SERVPERF questionnaire was used to conduct the study. In this research the effect of service quality dimensions on customer satisfaction in the context of private pharmaceutical importer was examined. The study was conducted by taking only pharmaceutical wholesalers in Addis Ababa due to financial and time constraints.

1.7. Basic Assumptions

The assumptions underlying this study include that:

- This study includes private pharmaceutical importers involved in import and distribution of pharmaceutical products only. This does not include importers involved in importing of medical devices and equipments.
- The private pharmaceutical importers meet the minimum criteria placed by Ethiopian Food and Drug Authority (EFDA) to involve in the import and distribution of pharmaceuticals and have a valid license.
- The quality of pharmaceutical products was assured by the EFDA and this study was done by assuming a registered quality product having approval by EFDA are imported and distributed by private pharmaceutical importers.
- The adopted SERVPERF research instrument has of relevance to the pharmaceutical industry and customers that who took part in this study.

- Customers can able to assess the service offered by the private pharmaceutical importers as a whole.

1.8. Organization of the Study

The study organized into five major chapters. The first chapter is an introductory part composed of background of the study, statement of the problem, research questions, objectives of the study, significance of the study, scope and delimitation of the study, basic assumptions. The second chapter deals with review of related theoretical and empirical literature, conceptual framework and proposed hypotheses. The third chapter focuses on the research methodology. The fourth chapter deals with data presentation, analysis and discussion and the fifth chapter cover summary, conclusions, recommendations, limitation of the study and direction for future research.

CHAPTER 2 REVIEW OF RELATED LITERATURE

This chapter tried to present the theoretical and empirical related foundation for this research topic.

2.1. Theoretical Related Literature Review

2.1.1. Pharmaceutical Supply Chain

A supply chain is the arrangement of organizations, their facilities, acts, and activities; that are involved in manufacturing and giving a product or service. A supply chain is a set of facilities and distribution options that functions to procure materials, transform these materials into intermediate and finished products, and distribute these finished products to customers (Parmata, B., & B., 2016).

The PSC represents the path through which essential pharmaceutical products are distributed to the end-users at the right quality, at the right place and at the right time (Mehralian, Rajabzadeh, Morakabati & Vatanpour, 2012). PSC is very complicated and greatly responsible to ensure that the appropriate drug, reaches the right people at the right time and in the right situation to fight against sickness and sufferings. This is a highly sensitive supply chain that everything less than 100% customer service level is unacceptable as it directly influence the health and safety (Chandrasekaran & Kumar, 2003).

A typical PSC consists of the following members: initially manufacturing, secondary producing, market warehouse/distribution centers, wholesalers, retails/hospitals and patients (Shah, 2004). Among PSC components, it has been argued that delivery of medicines has substantial effect on customers' satisfaction (Rossetti, Handfield & Dooley, 2011).

Supply chain encompasses all stages involved in fulfilling a customer request from product development to customer service, and parties involved in the supply chain include manufacturers, suppliers, transporters, distributors, retailers and customers (Lambert et al., 1998). Supply chain integration within the organization and across the network of interdependent organizations that comprise the supply chain can improve a company's competitive advantage by providing customer satisfaction at the lowest total cost (Aitken, Childerhouse, Christopher & Towill, 2005; Lambert, Cooper & Pagh, 1998; Simchi-levi, Kaminsky & Simchi-levi, 2004).

The pharmaceutical distributors play a significant role in the medical and health system, so that they can shape a suitable bridge between retailers and pharmaceutical companies. Considering this intermediate role, they can easily transfer information between them. As result, continuous flow of drugs to patients at optimal price, with minimal delays and few shortages would be possible (HDMA, 2009).

PSC plays an extremely important role in preserving the health of people, and unlike other goods and services, access to health care services and products is often considered a personal right. The PSC plays a major role in ensuring the right drug, reaches the right people, timely and accurately price (Parmata, B., B. & N, 2014).

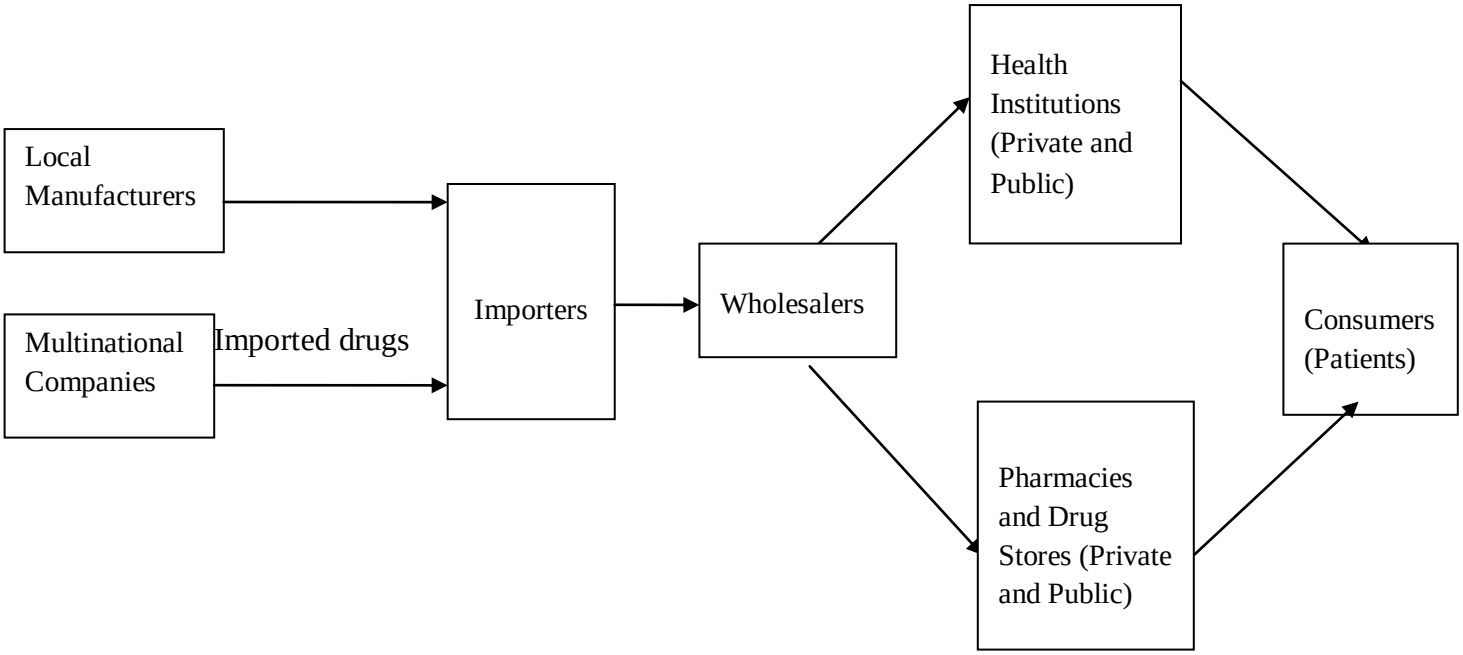

Figure 1 Main Simplified Route of Private Sector Pharmaceutical Supply Chain adapted from Mehralian et al., 2012

Since business is highly competitive today, success largely depends upon the efficiency of the supply chain. The PSC is the means through which prescription medicines are delivered to patients. Pharmaceuticals originate in manufacturing plants are transferred to distributors; stocked at retail and ultimately distributed to consumers. Logistics in the PSC is critical for providing the right medicine to the right patient at the right time and most importantly at the right price (Parmata et al., 2014).

Pharmaceutical distributors and its customers operate in a very regulated and competitive market where high quality services are expected, making the interaction and service received from the distributor all the more critical (Bangalee & Suleman, 2015)

The quality of service received from the distributor strongly affects the service a patient receives down the supply chain, and as such, the distributor directly affects the business performance, profitability, customer loyalty, and customer satisfaction of its customers (Mehralian, Babapour & Peiravian, 2016).

The pharmaceutical market in Ethiopia is composed of about 70% public sector and 30% private sector. The public sector is supplied by the Ethiopian Pharmaceutical Funds and Supply Agency (PFSA), which was established in 2007 (PFSA, 2015; Shewarega, Dowling, Necho, Tewfik & Yiegezu, 2015).

Since Ethiopia is a landlocked country, poor transportation infrastructure is a major geographical challenge in the pharmaceutical supply chain system (Kim & Shigha, 2010). The other major challenge in the import and distribution channel in Ethiopia is shortage of foreign currency.

2.1.2. Service Quality

Traditionally, service quality has been conceptualized as the difference between customer expectations regarding a service to be received and perceptions of the service being received (Grönroos, 2001; Parasuraman, Zeithaml, & Berry, 1988). In some earlier studies, service quality has been referred as the extent to which a service meets customers' needs or expectations. It is also conceptualized as the consumer's overall impression of the relative inferiority or superiority of the services (Zeithaml, Berry & Parasuraman, 1990).

Parasuraman, Zeithaml, and Berry (1985) undertook an exploratory study to investigate the concept of service quality. It was revealed that judgment of high and low service quality depended on how customers perceived the actual performance in the context of what they expected. In short, service quality as perceived by the customers could be defined as the extent of the discrepancy between customers' expectations and their perceptions.

2.1.2.1. Service Quality Gaps Model

The Service quality gap model is an extention of Parasuraman *et al.* (1985). As depicted on Figure 2, according to this model there are seven major gaps in the service quality concept. From the stated seven gaps, Gap 1, Gap 5 and Gap 6 are the three important gaps which are more associated with the external customers and have a direct relationship with customers (Shahin, 2004).

- Gap1 is a result of mismatch of Customers' expectations versus management perceptions which is caused by the lack of a marketing research orientation, inadequate upward communication and too many layers of management.
- Gap 2 is a result of mismatch of Management perceptions versus service specifications and results from inadequate commitment to service quality, a perception of unfeasibility, inadequate task standardization and an absence of goal setting.
- Gap 3 is a result of mismatch of Service specifications versus service delivery mainly cause due to role ambiguity and conflict, poor employee-job fit and poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.
- Gap 4 occurs when there is a discrepancy between Service delivery versus external communication which is a result of inadequate horizontal communications and propensity to over-promise.
- Gap 5 is related to discrepancy between customer expectations and their perceptions of the service delivered which arise as a result of the influences exerted from the customer side and the shortfalls (gaps) on the part of the service provider. In this case, customer expectations are influenced by the extent of personal needs, word of mouth recommendation and past service experiences.
- Gap 6 arises when there is a discrepancy between customer expectations and employees' perceptions mainly resulting because of the differences in the understanding of customer expectations by front-line service providers.
- Gap7 is related to discrepancy between employee's perceptions and management perceptions and this gap is as a result of the differences in the understanding of customer expectations between managers and service providers.

The service quality gap model identifies seven key discrepancies or gaps relating to managerial perceptions of service quality, and tasks associated with service delivery to customers. The first six gaps (Gap 1, Gap 2, Gap 3, Gap 4, Gap 6 and Gap 7) are identified as functions of the way in which service is delivered, whereas Gap 5 pertains to the customer and as such is considered to be the true measure of service quality.

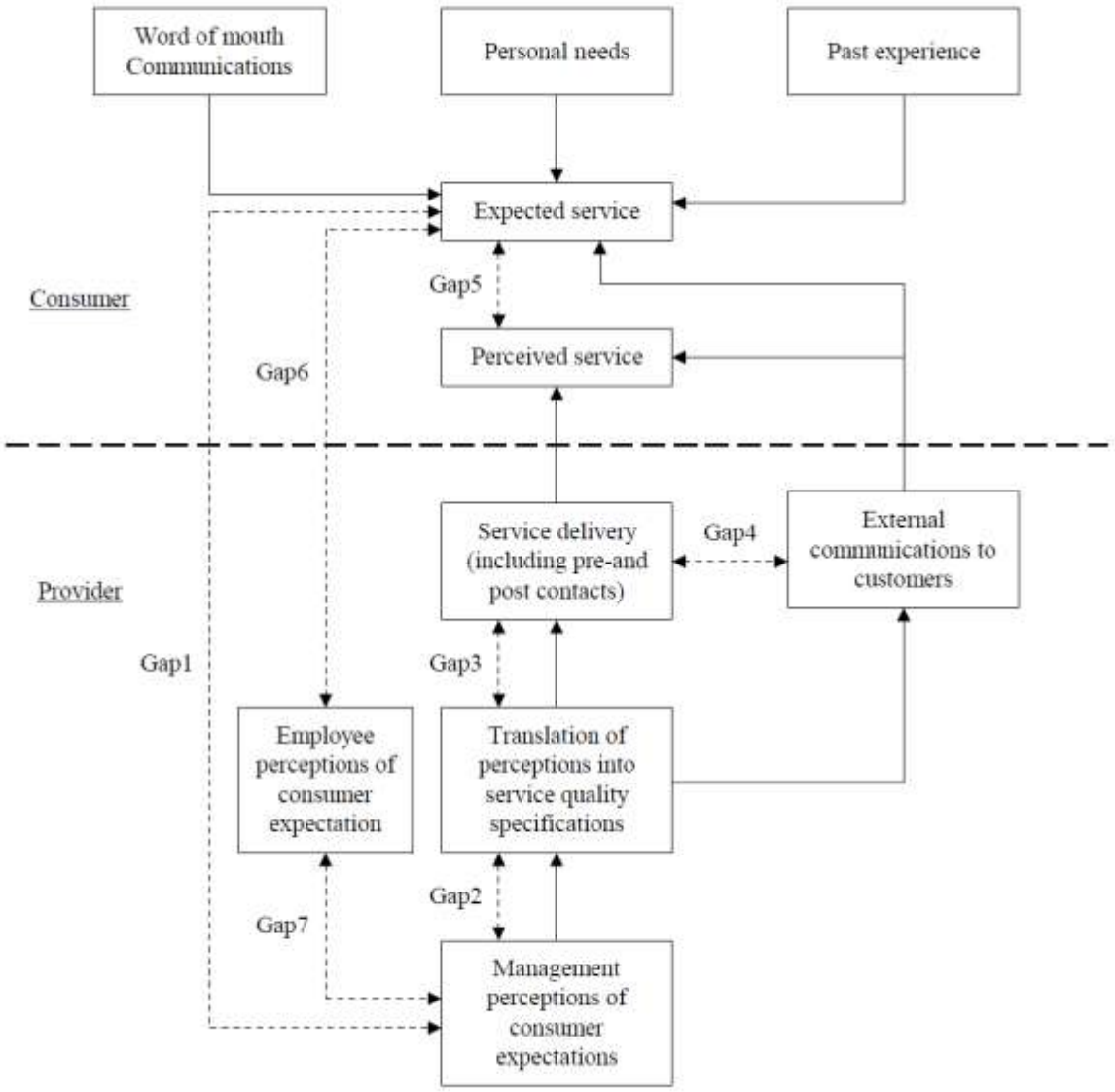

Figure 2 Model of service quality gaps (Parasuraman et al., 1985)

2.1.2.2. Dimensions of Service Quality

Parasuraman et al. (1988) identified five dimensions of service quality that link specific service characteristics to consumers' expectations. The five generic dimensions or factors are stated as follows (Pena et al, 2013).

(a) Tangibility: concerns the physical facilities, equipment, personnel and materials that can be perceived by the five human senses; which provide enough hints to customers about the quality of service and enhances the image (Ramya, Kowsalya, & Dharanipriya, 2019).

(b) Empathy (including access, communication, understanding the customer) related to caring and individualized attention that the firm provides to its customers. It refers to whether the organization cares for the user and assists him in an individualized manner, referring to the ability to demonstrate interest and personal attention. Empathy includes accessibility, sensitivity and effort in understanding the needs of users. It conveys the meaning through personalized or individualized services that customers are unique and special (Ramya et al., 2019).

(c) Assurance (including competence, courtesy, credibility and security) is related to knowledge and courtesy of employees and their ability to convey trust and confidence. This dimension focuses on job knowledge and skill, accuracy, courtesy etc of employees and feeling of security (Ramya et al., 2019).

(d) Reliability is ability to perform the promised service dependably and accurately. It is translated into the ability of the supplier to execute the service in a safe and efficient manner. It depicts the consistent performance, free of non-compliance, in which the user can trust. The supplier must comply with what was promised, without the need for rework (Ramya et al., 2019).

(e) Responsiveness is related to willingness to help customers and provide prompt service. Also refers to the availability of the provider to attend voluntarily to users, providing a service in an attentive manner, with precision and speed of response. It concerns the availability of employees of the institution to assist users and provide the service promptly. It focuses on the attitude and promptness in dealing with customer requests, questions, complaints and problems (Ramya et al., 2019);

Previous studies suggest that tangibility, reliability, responsiveness, assurance, and empathy are important service quality dimensions. Further, there is no significant difference among industry sectors in the ranking of the dimensions. Many later studies have tried to apply the concept of service quality to many specific industry contexts by building on existing models of service quality, notably the SERVQUAL model by Parasuraman et al. (1988) and the functional and technical quality model of Gro¨nroos (1984).

2.1.2.3. SERVQUAL Model to measure Service Quality

One service quality measurement model that has been extensively applied is the SERVQUAL model developed by Parasuraman *et al*. (1985, 1988, 1991, 1994; Zeithaml *et al.*, 1990). SERVQUAL compares customers' expectations before a service encounter and their perceptions of the actual service delivered (Gronroos, 1984; Parasuraman *et al.*, 1985). The SERVQUAL instrument has been the predominant method used to measure consumers' perceptions of service quality. The SERVQUAL model provides for two overhead sets of gaps, namely the gaps which occur on the customer's side, and then the gaps that occur on the service provider's side. The SERVQUAL model was chosen to measure differences between the perceived service quality and the actual received service quality (also referred to as Gap 5) (Parasuraman *et al*. 1985).

SERVQUAL model was selected as a service quality measurement tool because:

- It measures service quality and determine the differences in the perceived and expected quality of service.
- It classifies the service quality data into the five service quality antecedents (tangibility, reliability, responsiveness, assurance and empathy).
- The model has been widely used in a wide variety of industries and has proven to be valid since inception.

The research on measuring service quality has focused primarily on how to meet or exceed the external customer's expectations, and has viewed service quality as a measure of how the delivered service level matches consumer's expectations.

The concept of measuring the difference between expectations and perceptions in the form of the SERVQUAL gap score proved very useful for assessing levels of service quality. Parasuraman *et*

al. (1988), argue that, with minor modification, SERVQUAL can be adapted to any service organization. They further argue that information on service quality gaps can help managers diagnose where performance improvement can best be targeted.

Despite the wide application and use of the SERVQUAL model, it has been seriously criticized due to the application of expectations and the gap scoring. This is mainly because of the issue that expectation (E) is a difficult concept to quantify and use as a comparison standard, which imply the gap score less secure as a measurement (Cronin & Taylor, 1992). The other criticism mainly related to the methodological point of view and the considered universality of the identified service quality dimensions (Souca, 2011).

2.1.2.4. SERVPERF Model to measure Service Quality

Another widely used measurement of service quality is SERVPERF model which is developed by Cronin and Taylor (1992) out of SERVQUAL. SERVPERF model assumes respondents automatically compare their perceptions of the service quality levels with their expectations of those services and SERVPERF measures the customer's perception of service performance directly.

Cronin and Taylor (1992) developed this model based on the argument that only perception was sufficient to measuring the service quality. SERVPERF works on the perceived performances and hence gap score between perception and expectation does not exist in this model. SERVPERF also adopts the five dimensions of SERVQUAL and questionnaire with set of items under each dimension will be designed using Likert scale. Being a variant of the SERVQUAL scale and containing perceived performance component alone 'performance only' scale is comprised of only 22 items.

According to Cronin and Taylor (1992), the performance-only based SERVPERF instrument was a better method of measuring service quality with a high degree of internal consistency confirmed by a reliability rate rating of 0.88 to 0.96 found from different service industry, and the instrument exhibited good convergent and discriminate validity. Cronin and Taylor (1992) also provided empirical evidence across four industries to corroborate the superiority of their 'performance-only' instrument over SERVQUAL scale.

Methodologically, the SERVPERF scale represents marked improvement over the SERVQUAL scale. The scale is more efficient in reducing the number of items to be measured by 50 percent. SERVPERF scale found to be empirically superior to SERVQUAL scale for explaining the greater variance in the overall SQ measured through the use of single-item scale. Though still lagging behind the SERVQUAL scale in application, researchers have increasingly started making use of the performance-only measure of SQ (Babakus & Boller, 1992; Boulding et al., 1993, Cronin & Taylor, 1992, 1994).

2.1.3. Customer Satisfaction

Customer satisfaction is a well known and established concept in several areas like marketing, consumer research, economic psychology, welfare-economics, and economics.

The most common interpretations obtained from various authors reflect the notion that satisfaction is a feeling which results from a process of evaluating what has been received against what was expected, including the purchase decision itself and the needs and wants associated with the purchase (Armstrong & Kotler, 1996). Bitner & Zeithaml (2003) stated that satisfaction is the customers' evaluation of a product or service in terms of whether that product or service has met their needs and expectations.

According to Boselie, Hesselink, and Wiele (2002) satisfaction is a positive, affective state resulting from the appraisal of all aspects of a party's working relationship with another.

2.1.4. Service Quality and Customer Satisfaction

The focus on service quality is essential, especially in services market, to service firms for their survival and success in the era of increasing competitive market. Management of service quality helps to meet changing customer expectations more efficiently and effectively and to maintain consistency in service delivery (Ramya et al., 2019).

The quality of services is a measure of how good a given level of service able to match the expectations of patients. Quality of services is an advantage that is perceived by the consumer services of the comparison between what customers want with what is acceptable to the consumer after the purchase of services (Sidharta, Affandi, & Priadana. 2016).

There is a major factor affecting the quality of service that is expected service and perceived service. This concept is the development of the concept of satisfaction measurement based on technical quality and functional quality. The technical quality is a primary attribute, such as infrastructure, facilities, healing place while the functional quality includes the attributes of how the delivery of services to patients such as friendly attitude, waiting time and can be used to improve the quality of pharmacy services in hospitals that can ultimately improve patient satisfaction (Gro¨nroos, 1984).

Over the past few years there has been a heightened emphasis on service quality and customer satisfaction in business and academia alike. Sureshchandar et al, (2003) identified that strong relationships exist between service quality and customer satisfaction while emphasizing that these two are conceptually distinct constructs from the customers' point of view. Spreng and Mackoy (1996) also showed that service quality leads to customer satisfaction while working on the model developed by Oliver (1980).

The delivery of high-quality service is the key to success in service industries. In the present era of intense competition, monitoring and improving service quality is highly essential for developing efficiency and business volume (Anderson & Zeithamal, 1984; Babakus & Boller, 1992; and Garvin, 1983). In both manufacturing and service industries, quality improvement is the principal factor that effects consumer satisfaction and consumer's purchase intention (Oliver, 1980). Several scholars agree that the quality is critical to consumer's satisfaction (Omar & Schiffman, 1995; Gremler, Gwinner & Brown, 2001; and Radwin, 2000).

Several business organizations focus on service-quality issues to drive customer's satisfaction above the rest (Kumar, Smart, Maddern & Maull, 2008). The healthcare industry in developing countries like India, has recorded a relatively high growth rate with a high demand for its services from both foreign and local patients; despite constraints such as inadequate amount of hospital beds and shortage of highly qualified doctors. But, the growth could be sustained throughout several years that lie ahead (Burns, 2014). Delivery of high-quality service and building patient loyalty are considered to be critical anchors (Anderson & Zeithamal, 1984).

2.2. Empirical Related Literature Review

According to the findings of a recently conducted study on assessing the impact of service quality of pharmacies on customer loyalty by Adebisi and Lawal (2017) using the SERVQUAL model, all five service quality dimensions have a significant positive effect on customer loyalty and that health service providers should improve their quality of service for their customers to stay loyal.

A study by Tefera (2018) who assessed the overall service quality and the customers level of satisfaction of the outsourced employment services Commercial Nominees delivers by investigating the impact of service quality dimensions on customers level of satisfaction . The multiple regression analysis result confirmed that all service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy) have a positive impact on the customer satisfaction with $p<0.05$ with varying degree of impact varies amongst the services quality dimensions. Reliability and assurance service quality dimension have strongest impact on customers satisfaction with β value 0.249 and 0.233 respectively followed by tangibility with $\beta= 0.212$, responsiveness with $\beta=0.169$ and empathy with $\beta=0.178$.

Using the SERVQUAL model, Parmata *et al*. (2016) conducted a study to evaluate the service quality from a distributor's perspective in the supply chain of the healthcare sector and the results of the study showed that service quality dimensions significantly affect customer satisfaction found out that Responsiveness, Assurance, Reliability and Communication are the critical factors effecting company's service quality.

The results of the research that has been done on the effect of service quality of pharmaceutical on patient satisfaction in public hospital in Bandung, Indonesia showed that the service qualities of pharmaceutical affect the patient's satisfaction. Service quality partially has significant effect on service promptness, pharmacist attitude, medical counseling, pharmacy location and waiting area toward patient satisfaction (Sidharta et al 2016).

According to a study aimed at investigating the level of pharmaceutical services quality in Jordan and its effect on building a strong relationship between pharmacists and their customers from the pharmacists' perspective, through customers' perceived value, satisfaction, and loyalty. The study found a statistically significant effect of pharmaceutical services quality on building a strong

relationship between pharmacists and their customers at level (α=0.05) from one dimension (Responsiveness) only. And also pharmaceutical services quality has a statistically significant effect on customers' perceived value, satisfaction and loyalty. Because of the direct impact of these services on customers' perceived value, satisfaction and loyalty, the study recommends pharmaceutical sector should focus on the quality of pharmaceutical services provided to customers as a basic standard for building a strong relationship with customers (Alhuwitat & Salem, 2017).

In a study done by Usanga & Murairwa (2017) to measure the quality of service offered by Mutare community pharmacies to determine the levels of quality perceptions in relation to the expectations of the customers, the customers' expectations were greater than the perceptions in all the service quality factors investigated. The assurance and empathy quality of service attributes were highly rated and the tangibles dimension was the least rated among the five service quality dimensions. The researchers recommended that Mutare community pharmacies should improve in all the five service quality dimensions and should focus on the assurance and empathy service quality dimensions as these were the most important dimensions to the customers.

According to a study by Bisschoff & Barnard (2019) to measure the service quality of pharmaceutical wholesalers in South Africa, it was found that all five service dimensions had negative gaps (none of these gaps was practically significant) where perceptions and expectations are measured which indicated clients expected better service quality than what they received. According to the results of the study, Assurance showed the largest gap, while Tangibility had the smallest gap.

Mehralian *et al.* (2016) conducted a study to develop an Service Quality Measurement Scale in Iranian PSC context which is useful for assessing service quality of the distributor-pharmacy interface and can be used to improve the service quality and customer satisfaction. The result showed that reliability dimension has the strongest effect on Service Quality Management System (SQMS) followed by assurance. The study also revealed that empathy with customer's, responsiveness and tangibility are also follows the abovementioned service dimensions as factors affecting SQMS.

Ahmad, Awan, Raouf, & Sparks (2009) developed a service quality measurement scale for measurement of service quality in the distributors-retailers interface of pharmaceutical supply chains in Pakistan. The developed model has four service quality dimensions only (reliability, assurance, tangibles, and responsiveness). This study also identified that empathy is not a critical dimension of service quality in distributors-retailers interface of pharmaceutical supply chains in Pakistan. The study recommends that the service quality measurement must be adapted to fit the context.

Kitapci, Akdogan & Dortyol (2014) studies the impact of service quality dimensions on satisfaction and the effect of satisfaction on repurchase intentions and on word-of-mouth communication for outpatients in Turkey, and found out that empathy and assurance dimensions positively and directly influence and important antecedents of satisfaction while responsiveness, reliability and tangible did not have a significant influence on satisfaction.

According Meesala & Paul (2018) a study seeks to identify the most critical factors in hospitals related to service quality and was conducted using the data from the consumers who received services from 40 different private hospitals in Hyderabad, India, the result from the regression weight the study showed that Responsiveness (.160) and Reliability (.550) (but not empathy, tangibility and assurance) impact patients' satisfaction.

2.3. Conceptual Framework

Service Quality is a vital antecedent of customer's satisfaction (Cronin,, and Taylor 1992) and turn customer satisfaction is believed to affect post-purchase and perception and future decisions. Previous literatures show that there is a relationship between service quality and customer satisfaction. Based on SQ and customer satisfaction theory there are relational factors such as Tangibility, Responsiveness, Reliability, Empathy and Assurance on the Satisfaction of customers.

Moreover, the SERVPERF model has been proven to be one of the best models to measure service quality in service sectors especially with the customer perspective. Those five dimensions of SERVPERF model could have a direct relationship with customer satisfaction. In this study, the researcher wants to find out the effect of the five dimensions of service quality can

positively affect the customer satisfaction towards the services provided by private pharmaceuticals importers or not.

Based on the theoretical and empirical literature review, a causal inferences is drawn between the independent variables which are service quality dimensions namely reliability, responsiveness, assurance, empathy, and tangibility and dependent study variable (Customer Satisfaction).

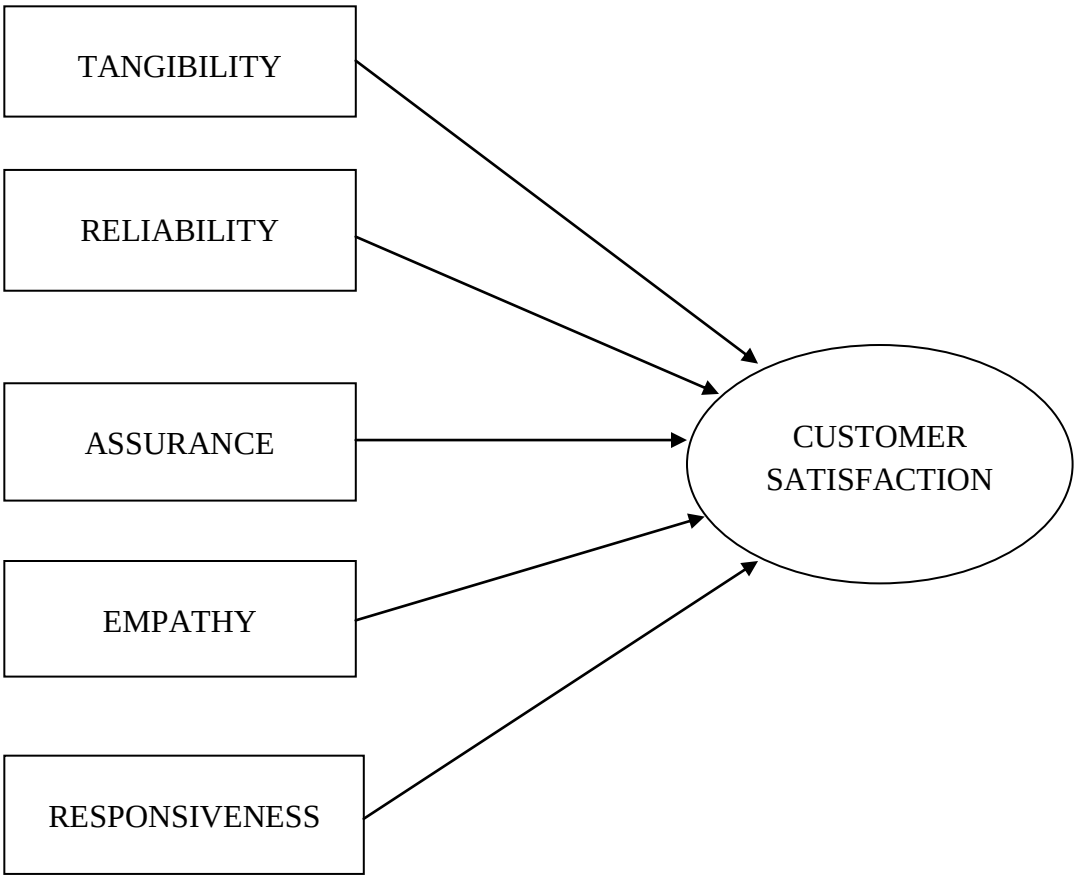

Figure 3 Conceptual framework of the study adopted from Parasuraman et al., 1988

2.4. Hypotheses

Based on the conceptual framework and literature review, the researcher develops the following hypotheses for the study based on the above literature review.

> Ha1: Tangibility (TAN) has a statistically significant positive effect on customer satisfaction.

Ha2: Reliability (REL) has a statistically significant positive effect on customer satisfaction.

Ha3: Responsiveness (RES) has a statistically significant positive effect on customer satisfaction.

Ha4: Assurance (ASS) has a statistically significant positive effect on customer satisfaction.

Ha5: Empathy (EMP) has a statistically significant positive effect on customer satisfaction.

CHAPTER 3 RESEARCH METHODOLOGY

This chapter presents the research approach, research design, data types and sources, reliability, validity, population, sampling technique and sample size determination, data collection procedures, data analysis techniques, and ethical considerations,.

3.1. Research Approach

As stated by John, Hafiz, Robert & David (2007), research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. The selection of a research approach is also based on the nature of the research problem or issue being addressed, the researchers' personal experiences, and the audiences for the study. There are three basic approaches to research (a) qualitative (b) quantitative (c) mixed methods. Quantitative survey is the most appropriate one to use if the purpose of an investigation is to describe the degree of relationship which exists between the variables. In general, quantitative research is the systematic and scientific investigation of quantitative properties and phenomena and relationships (Bhattacherjee, 2012). The objective of quantitative research is to develop and employ mathematical models, theories and hypotheses pertaining to natural phenomena. It usually starts a general statement proposing a general relationship between variables. Quantitative researchers favor methods such as surveys and experiments, and will attempt to test hypotheses or statements with a view to infer from the particular to the general (Bhattacherjee, 2012).

Quantitative research approach was employed to assess the effect of service quality dimensions on customer satisfaction in the case of Private Pharmaceutical Importers. Quantitative research approach involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion.

3.2. Research Design

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact research design is the conceptual structure within which research is conducted; it constitutes the blue print for the collection; measurement and analysis of data (Kothari, 2004).

Singh (2006) stated that research design is essentially a statement of the object of the inquiry and the strategies for collecting the evidence, analyzing the evidences and reporting the findings. There are different types of scientific research namely exploratory research, Descriptive research and Explanatory research (Bhattacherjee, 2012).

Accordingly, this research was conducted using both descriptive and explanatory research design and also different inferential statistics tools were used to understand the relationship between the dimensions of service quality and customer satisfaction and the effect service quality dimensions have on customer satisfaction in private pharmaceutical importers.

3.3. Data Types and Source

There are two kinds of sources for data collection and these are primary and secondary sources of data. Primary data are those which are collected afresh and for the first time and thus happen to be original in the character; from the field by the researcher which is subject to the topic under study (Kothari, 2004). Both primary and secondary data will be collected from various sources using data gathering instruments to make the study complete and achieve its predetermined objectives.

In this study both primary and secondary sources were used in gathering information for the study. The researcher used a structured questionnaire as source of primary data. The researcher obtained secondary data from various source of information from journal, books and internet that contains relevant information for the study. These are sources containing data, which are collected and computed for other purpose but also they helped the researcher in this study.

3.3.1. Reliability

Reliability is the degree to which the measure of a construct is consistent or dependable. In other words, if we use this scale to measure the same construct multiple times do we get pretty much the same result every time, assuming there is no change in underlying phenomenon. According to (Bhattacherjee, 2012), internal consistency reliability is a measure of consistency between different items of the same construct (Bhattacherjee, 2012).

The Cronbach Alpha (α) coefficient was statistically calculated to determine the reliability of the data about all the dimensions of service quality in the SERVPERF model. Cronbach's alpha determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability (Bryman & Bell, 2014). An acceptable level of reliability is usually implied by a result of 0.8 and above, although most researchers accept an alpha coefficient of 0.7 as acceptably (Bryman & Bell, 2014). The minimum Alpha coefficient for this research was thus set at $\alpha \geq 0.70$.

3.3.2. Validity

Validity often called construct validity refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure (Bhattacherjee, 2012). Validity is concerned with how well the concept is defined by the measure. According to Bhattacherjee (2012) there are two assessments of validity theoretical or translational validity and empirical or criterion-related validity which includes Content validity, Predictive Validity, Convergent validity and Concurrent validity. Content validity is an assessment of how well a set of scale items matches with the relevant content domain of the construct that it is trying to measure. Convergent validity refers to the closeness with which a measure relates to (or converges on) the construct that it is purported to measure, Predictive validity is the degree to which a measure successfully predicts a future outcome that it is theoretically expected to predict. Concurrent validity examines how well one measure relates to other concrete criterion that is presumed to occur simultaneously. The study applied content validity because it assess how well a set of scale items matches with the relevant content domain of the construct that it is trying to assess.

3.4. Population and Sampling Design

Sampling is the process or technique of selecting a suitable sample for the purpose of determining parameters or characteristics of the whole population (John et al., 2007).

3.4.1. Population of the Study

The source population of the study consists of all pharmaceutical wholesalers having a valid license given by Ethiopian Food and Drug Authority (EFDA) to operate in Ethiopia and have an interaction with private pharmaceutical importers. According to the Regulatory activity update of EFDA, there are 480 licensed pharmaceutical wholesalers (customers) in Ethiopia of which 378 found in Addis Ababa (N=378) (EFDA, 2019).

The target populations for the study were all pharmaceutical wholesalers having a valid license given by EFDA to operate in Ethiopia and have an interaction with private pharmaceutical importers which have their registered office and store in Addis Ababa, Ethiopia.

The study unit of the study were all technical managers, store managers or any other assigned personnel of the selected pharmaceutical wholesaler that have an interaction with private pharmaceutical importers.

3.4.2. Sample Size Determination

Considering the size, as well as the time, it was hard to collect data on the whole population. Thus, to avert such constraint the researcher forced to draw sample from the whole population. Whenever it is possible to access the entire population, it is possible to collect data from sample and use the behavior within the sample to infer things about the behavior of the population. Field also states that the bigger the sample size, the likely it reflect the whole population. The size of the sample should neither be excessively large; nor too small. It should be optimum; an optimum sample is one which fulfills the requirements of efficiency; representativeness; reliability and flexibility (Kothari, 2004).

Kreijcie and Morgan (1970) pointed that there is no need of calculations by using formula and come up with an efficient method of determining the sample size needed to be representative of a given population. In order to determine the sample size of given population, only the table has to be considered.

Table 1: Table for Determining Sample Size from a Given Population, Kreijcie and Morgan (1970)

N	*S*	*N*	*S*	*N*	*S*	*N*	*S*	*N*	*S*
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

According to Kreijcie and Morgan sample size table depicted on Table 1 for known population (N=378); the sample size of this study is **191**.

3.4.3. Sampling Techniques

It is a definite plan for obtaining a sample from a decided population. A better sampling technique has a smaller sampling error for an appropriate sample size at a reasonable cost. A systematic bias results from error in sampling procedures which cannot be eliminated or reduced

by increasing sample size. Natural bias of respondents in the reporting of data is often the cause of systematic bias (Kothari, 2004).

Random sampling from a finite population refers to the method of sample selection which gives each possible sample combination an equal probability of being picked up and each item in the entire population to have an equal chance of being included in the sample. The results obtained from random sampling can be measured in terms of probability (Kothari, 2004). There are two basic sampling techniques which are probability and non-probability sampling.

By keeping this in view, the researcher used a simple random sampling procedure for this study. The populations of the study were pharmaceutical wholesalers having a valid license given by EFDA to operate in Ethiopia and have an interaction with private pharmaceutical importers. The sample size for the study assumes 95% confidence level, and 5% margin of error. The samples were selected from the list of licensed pharmaceutical wholesalers using lottery method.

3.5. Data Collection Procedure

Data collection was conducted by a self-administered questionnaire. The questionnaires were carefully adopted in a way that used to measure the effect of the proposed independent variables on the dependent variable. This self-administered questionnaire was developed with a five point Likert scale. Close ended questions included in the questionnaire. The type of questions, form, wording and sequences also considered carefully.

The general advantage of the questionnaire method is that, it allows collection of large amount of data from suitable population in a highly economical way. Questionnaire method has the following advantages: time and money saving; good for respondents who cannot offer audience to the researcher; it is free from the bias of the interviewee; answers are in respondents words; respondents have adequate time to give well thought out answers and respondents who are not easily approachable can also be reached conveniently (Kothari, 2004). On other hand this method has the following disadvantages; it doesn't work if respondents do not know how to read and write; low rate of return of the duly filled in questionnaires; no supplementary information was collected and some respondents do not respond a situation which may affect the quality of the study and this method is likely to be the slowest of all (Kothari, 2004).

The primary data for this study was collected through self-administered structured adopted SERVPERF questionnaire with five point likert scale. The questioners were distributed to each sample selected customer (pharmaceutical wholesaler) in person where they were available. After the questioners are retuned back, the researcher checked for the completeness.

3.6. Data analysis Techniques

After collecting the required data, the researcher coded and entered the collected data for electronic processing using the software Statistical Package for Social Sciences software (SPSS Version 23). The researcher used both descriptive and inferential statistics to analyze the data using SPSS 23 as a statistical tool. The descriptive statistics such as frequencies, percentages, means, standard deviations, tabular, and graphic representations were used to summarize and present the data. In addition, correlation analysis using pearson correlation coefficient was used to show and assess the relationship between independent variables (tangibility, reliability, responsiveness, assurance, and empathy) and dependent variables (customer satisfaction) of the study.

Furthermore, multiple linear regression analysis was used to examine the influence of the independent variables on the dependent variable and test the proposed hypotheses. Multiple regression analysis is adopted when there is one dependent variable which is presumed to be a function of two or more independent variables with the objective of making a prediction about the dependent variable based on its covariance with all the concerned independent variables (Kothari, 2004). Multiple linear regression analysis was used to assess the extent of effect of the independent study variables on dependent variables. The multiple regression equation was used to describe the relationship between independent variables (tangibility, reliability, responsiveness, assurance, and empathy) and dependent variables (customer satisfaction).

Mathematically, $CS=\beta1+\beta2(TAN)+\beta3(REL)+\beta4(RES)+\beta5(ASS)+\beta6(EMP)+\varepsilon$

Where

CS is the dependent variable (customer satisfaction)

TAN, REL, RES, ASS, and EMP are independent variables which denoted tangibility, reliability, responsiveness, assurance and empathy respectively.

$\beta1$ is intercept of customer satisfaction, its mechanical interpretation is the average value of customer satisfaction when the stated independent variables are set equal to zero.

$\beta2$, $\beta3$, $\beta4$, $\beta5$, $\beta6$ are the coefficients of SQ dimensions namely tangibility, reliability, responsiveness, assurance and empathy respectively, which measures the change in the mean value of customer satisfaction, per unit change in their respective independent variables

ε is error term

3.7. Ethical Considerations

Ethics are the moral distinction between right and wrong, and what is unethical may not necessarily be illegal (Bhattacherjee (2012). In order to be ethical a researcher should consider voluntary participation and harmlessness. Subjects in a research project made aware that their participation in the study is voluntary, that they have the freedom to withdraw from the study at any time without any unfavorable consequences, and they are not harmed as a result of their participation or non-participation in the project. Name of the respondents and companies name was not asked to write in order to increase the confidentiality of the information they give. And also the questionnaire explains that the purpose of research was for academic purpose and finally the respondents were included based on their willingness. Furthermore, the researcher avoided misleading or deceptive statements in the questionnaire. Lastly, the questionnaires were only distributed to voluntary participants.

CHAPTER 4 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

This chapter presents data presentation, analysis and interpretation of the research findings. Descriptive and inferential statistics were used to analyze the data using SPSS V. 23 as a statistical tool. In order to make the collected data suitable for the analysis, all questionnaires were screened for completeness. Out of the 191 distributed questionnaires, 177 were returned. During data editing, the collected questionnaires were checked for errors and were found to be valid and used for the final analysis, which represent 92.67 % valid response rate.

4.2. Characteristics of the Respondents and Wholesalers

Before starting the analysis of the data, background information such as demographic data, is useful in order to make the analysis more meaningful for the readers. The samples of this study have been classified according to several background information collected during the survey. The purpose of the demographic analysis in this research was to describe the characteristics of the sample with respect to proportion of males and females, range of age, educational background and work position. The frequency distributions of demographic variables were presented below on Table 2.

Table 2: Demographic Characteristics of the respondents

Items		*Frequency*	*Percent*
Sex	Male	129	72.9
	Female	48	27.1
Age (Year)	21-30	53	29.9
	31-40	81	45.8
	41-50	36	20.3
	51-60	5	2.8
	>60	2	1.1
Educational background	Diploma	18	10.2
	Bachelors Degree	120	67.8
	Master Degree and above	39	22.0

Work Position	Technical Manager	76	42.9
	Store Manager	26	14.7
	Owner	34	19.2
	Technical Manager and Owner	39	22.0
	Store Manager and Owner	2	1.1

Source: S*urvey Result (June, 2020)*

As depicted on Table 2, out of 177 respondents, the male respondents constituted the highest percentage 129 (72.9%) while their female counterparts only constituted 48 (27.1%) of the respondents. This implies that the majority of personnel interacting and making decision with the private pharmaceutical importers were male. This also shows that the managerial positions of pharmaceutical marketing of private pharmaceutical wholesaler were occupied by males.

Regarding age, 81(45.8%) of the respondents were in the age group of 31-40 years, 53(29.9%) were in the age group of 21-30 years, 36(20.3%) were in the age group of 41-50 years while only 5 (2.8%) and 2(1.1%) were in the age group of 51-60 and >60 years respectively. This implies that most of the respondents were young and adults.

According to the finding of the study, majority 120(67.8%) of the respondents have a bachelors degree, while 18(10.2%) completed diploma and the rest 39(22%) of the respondents have a masters degree and above.

Majority of the respondents 76 (42.9%) of the respondents were technical managers, 26(14.7%) were store managers, 34(19.2%) respondents were owners, 39(22%) were owners working as technical managers, and 2(1.1%) were owners working as store manager. This implies that managers and owners of pharmaceutical wholesalers were responsible for making the interaction and communication with the private pharmaceutical importers.

The research paper also tried to find out the specific characteristics of pharmaceutical wholesaler with respect to ownership, year of service in the market, monthly sales and main mode of payment used by the wholesale to make payment for pharmaceutical importers.

Table 3: Characteristics of the pharmaceutical wholesaler

Items		Frequency	Percent
Ownership of Wholesale	Sole Proprietorship	60	33.9
	Private Limited Company (PLC)	99	55.9
	Share Company	18	10.2
Year of Service of the Wholesale	≤5 Years	111	62.7
	6-10 Years	50	28.2
	11-15 Years	12	6.8
	≥ 16 Years	4	2.3
Monthly Sales of the Wholesale	≤ 200,000 ETB	13	7.3
	200,000 to 500,000 ETB	43	24.3
	500,000 to 1 Million ETB	37	20.9
	1- 5 million ETB	62	35.0
	≥ 5 Million ETB	22	12.4
Main mode of payment used by your wholesale to make payment for pharmaceutical importers	Credit	10	5.6
	Cash	36	20.3
	Cash and Credit	131	74.0

Source: S*urvey Result (June, 2020)*

According to the finding shown on Table 3, 60(33.9%) of the wholesalers are owned by sole proprietorship, 99(55.9%) are Private Limited Company (PLC), while 18(10.2%) of the wholesalers are share companies. This implies that majority of the wholesaler are owned by more than one person and the interaction with importers and decisions will not be made independently.

The finding of the study also showed that 111(62.7%) of the wholesalers were in the market ≤5 years, 50(28.2%) were 6-10 years, 50(28.2%) were 11-15 years and 12(6.8%) were serving for ≥ 16 years. This implies that majority of the wholesalers are in the market for less than 5 years and importers need to focus on building a long-lasting relationship.

Regarding the monthly sales of the wholesale, the results showed that 13(7.3%) have ≤ 200,000 ETB, 43(24.3%) have 200,000 to 500,000 ETB, 37(20.9%) have 500,000 to 1 Million ETB, 62(35%) have 1- 5 million ETB and 22(12.4%) have a monthly sales of ≥ 5 Million ETB. This implies that the importers need to focus on wholesalers and help them to increase the monthly sales.

According to the finding, majority 121(74%) of the wholesalers prefer using both cash and credit, 36(20.3%) prefer and use cash and the rest 10(5.6%) uses credit as a main mode of payment in order to make payment for pharmaceutical importers. This implies that the private pharmaceutical importers need to have a flexible payment mode in order to attract pharmaceutical wholesalers.

4.3. Descriptive Analysis of Service Quality Measurement

Descriptive statistic of means and standard deviations were obtained from the independent and dependent variables. The descriptive analysis is used to look at the data collected and describe that information. Mean value provides the idea about the central tendency of the values of a variable. On the other hand, standard deviation gives the idea about the dispersion of the values of a variable from its mean value.

To measure the customer's perception of the service quality provided by private pharmaceutical importers, SERVPERF model was used. The method directly measures the customer's perception of service performance. The model contains questions with a five point Likert scale which help measuring the performance. For all the five dimensions of service quality, the mean score have been computed and presented in Table 4.

Table 4: Descriptive analysis of wholesaler response regarding SQ dimension attributes

	Mean	Std. Deviation
Private pharmaceutical importer's have up-to-date equipment and technology (computers, air-conditioning, etc)	2.72	.958
Physical facilities (office, parking, and store) are sufficient, visually appealing and clean.	3.42	.889
The employees delivering the services are well dressed, neat, disciplined, professional in their appearance	2.75	.876
Vehicles used in transportation and materials associated with the service are visually in a good condition and visually appealing	3.37	.927
Tangibility	**3.0678**	**.75165**
When private pharmaceutical importer promises to supply service within a specific time, services are provided on time as promised to be provided.	3.18	.833
The employees show sincere interest to solve the problem of the customer and they are sympathetic and reassuring	3.33	.816
The employees perform error free service and they are dependable	3.32	.848
Records of your orders, payments and delivery are kept accurately and in order	3.30	.823
Reliability	**3.2839**	**.64147**
Employees makes the information easily obtainable and always provide basic information's (such as expiry date, expected date of deliverance of product, steps in the logistics)	3.45	.768
The employee gives a prompt service	3.42	.743
Employees are happy to help customers and willing to serve customer	3.54	.723

Employees are always very helpful and not too busy to respond to the customers' requests.	3.35	.840
Responsiveness	**3.4393**	**.59786**
The employees have the required skill in providing services and are trust worthy	3.36	.807
You feel safe and confident with the overall service provided	3.34	.892
Employees are constantly polite	3.20	.985
The employees always provide you the adequate information on the service requested	3.41	.836
Employees have the authority to solve your problems	3.03	.938
Assurance	**3.2689**	**.72644**
The employees gives individual attention and show sincere interest in solving any product related problems	3.43	.877
The employees do promptly understand your specific needs	3.40	.887
The Private Pharmaceutical Importer and its employees have the customers best interest at heart	3.06	.989
Office operating hours are convenient for to the customers	3.64	.786
Payment methods used by the private pharmaceutical importer are convenient	3.36	.937
Empathy	**3.3774**	**.65605**

Source: S*urvey Result (June, 2020)*

All independent variables (tangibility, reliability, responsiveness, assurance and empathy) have a mean score above average. Responsiveness has the largest mean score with 3.4393, followed by empathy 3.3774, reliability 3.2839, assurance 3.2689, and tangibility with 3.0678. This shows that all the service quality dimensions have a mean value greater than the average score.

Overall Service Quality

The study tried to assess respondents perception towards the overall service quality delivered by the private pharmaceutical importers.

Table 5: Response regarding overall service quality

	Frequency	Percent
Worst	1	0.6
Poor	44	24.9
Neutral	48	27.1
Good	82	46.3
Excellent	2	1.1

Source: S*urvey Result (June, 2020)*

According to results of the study showed on Table 5, 82(46.3%) perceived the service delivered by the importers was good, 48(27.1%) as neutral, 44(24.9%) as poor, 2(1.1%) and 1(0.6%) as excellent and worst respectively. This implies there is a problem on the service quality delivered by the private pharmaceutical importers as a whole. Significant portion of the customers of does not think private pharmaceutical importers were delivering a quality service.

Overall Customer Satisfaction

The study also assessed the respondents' perception towards the overall satisfaction of customers with the service delivered and rendered by the private pharmaceutical importers.

Table 6: Response regarding overall customer satisfaction

	Frequency	Percent
Strongly dissatisfied	2	1.1
Dissatisfied	39	22.0
Neutral	55	31.1
Satisfied	77	43.5
Strongly satisfied	4	2.3

Source: S*urvey Result (June, 2020)*

According to results of the study showed on Table 6, 77(43.5%) of the respondents were satisfied, 55(31.1%) were neutral, 39(22%) were dissatisfied, 4(2.3%) and 2(1.1%) were strongly satisfied and strongly dissatisfied respectively. This implies there is a large portion of the customers of pharmaceutical importers who are not satisfied or who are dissatisfied by the service they are getting from private pharmaceutical importers as a whole. The findings from a study done by Melkamu (2016) on ZAF pharmaceuticals, one of the largest pharmaceutical importer in Ethiopia showed that approximately, a tenth of the respondents were still dissatisfied by the service provided by the importer.

Table 7: Descriptive Statistics of Overall Service Quality and Customer Satisfaction

	Mean	Std. Deviation
Overall Service Quality	3.23	.856
Overall Customer Satisfaction	3.24	.860

Source: S*urvey Result (June, 2020)*

The finding of the study also showed that the mean score of overall service quality and overall customer satisfaction is above the mean score. As it shown on Table 7, the mean score of overall service quality is 3.23 and the mean score of overall customer satisfaction is a mean of 3.24 which is above the mean score the likert scale 1 to 5.

4.4. Reliability and Validity Analysis

Reliabilities of the scales were checked after coding and entry of data into SPSS version 23.0. Cronbach's alpha coefficients were computed for each scale to determine the internal consistency reliability of the instruments used in the study. According to Malhotra & Birks (2007), the value of 0.60 is considered as in the lower limit of acceptability for Cronbach's alpha.

Table 8: Summary of Reliability Statistics

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Tangibility (TAN)	.841	.842	4
Reliability (REL)	.775	.774	4
Responsiveness (RES)	.781	.781	4
Assurance (ASS)	.872	.872	5
Empathy (EMP)	.782	.777	5

Source: S*urvey Result (June, 2020)*

As shown on Table 8, all variables have Cronbach's alpha value above 0.70 and the overall alpha value is 0.934 which shows the acceptability of the measurement scales used.

The content validity of the study was checked by using the correlation results of the analysis. As shown on Table 9 and proposed by Hair, et al, (1998), the Pearson correlation coefficient results need to be low with values no higher than 0.9. This indicates that the constructs are distinct from one another and is deemed to have an acceptable level of discrimination which establishes the content validity of the questionnaire with the likert questions.

4.5. Pearson Correlation Analysis

In order to determine the association between independent variables (tangibility, reliability, responsiveness, assurance, and empathy) and the dependent variables (customer satisfaction), a correlation analysis using Pearson correlation was computed.

Table 9: Correlations of Overall Service quality and Customer Satisfaction

		Overall Service Quality	Overall Customer Satisfaction
Overall Service Quality	Pearson Correlation	1	.869**
	Sig. (1-tailed)		.000
	N	177	177
Overall Customer Satisfaction	Pearson Correlation	.869**	1
	Sig. (1-tailed)	.000	
	N	177	177

**. Correlation is significant at the 0.01 level (1-tailed).

Source: S*urvey Result (June, 2020)*

The above Table 9 shows that overall service quality is significantly and positively correlated with dependent variable (customer satisfaction ($r=0.869$, $p<.001$). The overall quality of pharmaceutical importers service perceived by pharmaceutical importers has positive and significant correlation with customer satisfaction. This implies that the level of customer satisfaction is highly related to the perceived level of quality of service rendered by importers. So private pharmaceutical importers need to focus and work on delivering a quality service to their customer in order to improve the perceived level of service quality and satisfaction level of their customers.

Table 10: Correlations of service quality dimensions and customer satisfaction

		Tangibility	Reliability	Responsiveness	Assurance	Empathy	Overall Customer Satisfaction
Tangibility	Pearson Correlation	1	.553**	.606**	.502**	.621**	.670**
	Sig. (1-tailed)		.000	.000	.000	.000	.000
	N	177	177	177	177	177	177
Reliability	Pearson Correlation	.553**	1	.631**	.679**	.707**	.789**
	Sig. (1-tailed)	.000		.000	.000	.000	.000
	N	177	177	177	177	177	177
Responsiveness	Pearson Correlation	.606**	.631**	1	.520**	.654**	.703**
	Sig. (1-tailed)	.000	.000		.000	.000	.000
	N	177	177	177	177	177	177
Assurance	Pearson Correlation	.502**	.679**	.520**	1	.640**	.733**
	Sig. (1-tailed)	.000	.000	.000		.000	.000
	N	177	177	177	177	177	177
Empathy	Pearson Correlation	.621**	.707**	.654**	.640**	1	.781**
	Sig. (1-tailed)	.000	.000	.000	.000		.000
	N	177	177	177	177	177	177
Overall Customer Satisfaction	Pearson Correlation	.670**	.789**	.703**	.733**	.781**	1
	Sig. (1-tailed)	.000	.000	.000	.000	.000	
	N	177	177	177	177	177	177

**. Correlation is significant at the 0.01 level (1-tailed).

Source: S*urvey Result (June, 2020)*

Table 10 shows that the independent variables with (tangibility (r=0.670, p<.001), reliability (r=0. 789, p<.001), responsiveness, (r=0.703, p<.001), assurance (r=0.733, p<.001) and empathy (r=0.781, p<.001) were significantly and positively correlated with dependent variable. All five dimensions of the service quality independent variables have a positive and statistically significant correlation with customer satisfaction. From the results presented in Table 10, reliability was found to be highly correlated to customer satisfaction (0.789) followed by empathy (0.781), assurance (0.733), and responsiveness (0.703) and tangibility (0.670). This implies that any improvements to any of the service quality dimensions contribute to satisfaction of customers.

4.6. Regression Analysis

In this section the researcher discusses the relationships among variables using a statistical process namely regression analysis. It allows us to find the relationship between a dependant variable and one or more independent variables. Additionally, it allows predicting the value of the dependant variable when a chosen independent variable is varied while the rest are held constant. For the regression analysis, the five service quality dimensions; tangibility, reliability, responsiveness, assurance and empathy are the independent variables; whereas, customer satisfaction is the dependant variable.

4.6.1. Assumptions of Regression Analysis

Meeting the assumptions of regression analysis is necessary to confirm that the obtained data from the sample will truly represent the population and the researcher has obtained the best results (Hair et al., 1998). Adequacy of the sample size, multi-collinearity, linearity, hetereoskedasticity and normality assumption tests were checked before regression analysis was undertaken.

Multi-Collinearity and Adequacy of Sample Size

According to Ho (2006), the two most important conditions to be fulfilled before conducting regression analysis are the adequacy of the sample size and non-existence of correlation among the independent variables. The size of the sample has a direct effect on the statistical power of the significance testing in multiple regressions, which refers to the probability of detecting

statistically significant R-square or a regression coefficient at a specified significance level. Ho (2006) also suggested that the sample size should be at least 20 times more than the number of independent variables, as a rule of thumb, in order to get the desired level of statistical power. Given this rule of thumb, there are five independent variables and the number of respondents used for this study was 177 which were over the required criteria.

The other important condition for regression analysis is that there should not be interrelationship among independent variables. The situation in which the independent/predictor variables are highly correlated is known as multi-collinearity. When independent variables are multi-collinear, there is "overlap" or sharing of predictive power, which may lead to a situation where the regression model fits the data well, but none of the predictor variables has a significant effect in predicting the dependent variable (Ho, 2006).

According to HO (2006), the existence of multi- collinearity can be checked using the "Tolerance" and "Variance Inflation Factor (VIF)" values for each predictor. The tolerance value is an indication of the percentage of variance in one predictor that cannot be accounted for by the other predictors. The value of tolerance should be above 0.10 and any value lower than this indicates the existence of multi-collinearity. On the other hand, VIF is computed as "1/tolerance," VIFs start at 1 and have no upper limit.

According to Saunders, Lewis & Thornhill (2009), a value of 1 indicates that there is no correlation between this independent variable and any others. VIFs between 1 and 5 suggest that there is a moderate correlation, but it is not severe enough to warrant corrective measures. VIFs greater than 5 represent critical levels of multi-collinearity where the coefficients are poorly estimated, and the p-values are questionable.

Table 11: Multi-collinearity test of VIF and tolerance

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Tangibility	.534	1.873
	Reliability	.381	2.623
	Responsiveness	.471	2.124
	Assurance	.483	2.072
	Empathy	.372	2.688

a. Dependent Variable: Overall Customer Satisfaction

Source: S*urvey Result (June, 2020)*

For this study, as depicted on Table 11, both tolerance and VIF were calculated for independent variable. Value of tolerance for each independent variable was above 0.10 and VIF of each independent variable was below 5 which indicate the nonexistence of multi-collinearity and the regression analyses fulfills the criteria of non-existence of multi-collinearity.

Linearity and Hetereoskedasticity

According to Hair et al. (1998), the linearity of the relationship between the dependent and independent variable represent the degree to which the change in the dependent variable is associated with the independent variable. In a simple sense, linear models predict values falling in a straight line by having a constant unit change (slope) of the dependent variable for a constant unit change of the independent variable. Conventional regression analysis will underestimate the relationship when nonlinear relationships are present, i.e., R^2 underestimates the variance explained overall and the betas underestimate the importance of the variables involved in the non- linear relationship (Malhotra & Birks, 2007).

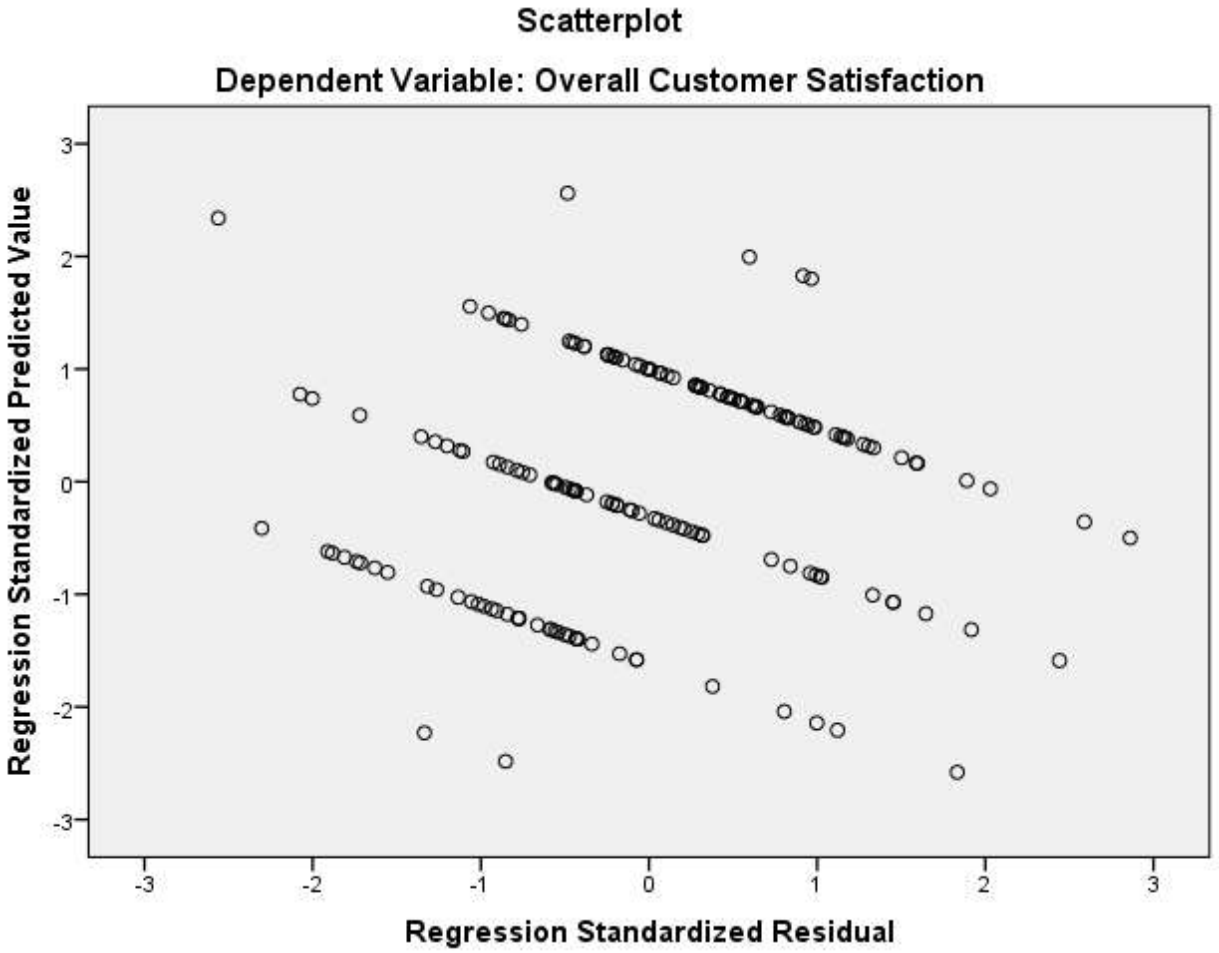

Figure 4 Scatterplot

Figure 4 show the scatter plot of standardized residuals versus the fitted values for the regression models. According to the scatter plot, the trend was centered on zero but also that the variances around zero is scattered uniformly and randomly. In hetereoskedasticity assumption, the variance of the errors is not constant across observations and the variance of the errors can be explained by the function of variances of explanatory variables (Malhotra & Birks, 2007). Based on this the researcher concludes that the linearity assumption and the hetereoskedasticity assumption were satisfied if the researcher run the fully specified predictive model.

Normality of the Error Term Distribution

Normality refers to the shape of data distribution for an individual metric variable, and its correspondence to the normal distribution (Hair et al., 2003). For estimating normality, skewness and kurtosis information values were observed, and probability plots were also drawn. Skewness provides information regarding the symmetry of the distribution, whereas Kurtosis provides information regarding peakedness of the distribution (Pallant, 2001).

Table 12: Descriptive Statistics of Skewness and Kurtosis

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Tangibility	177	.019	.183	-.636	.363
Reliability	177	-.136	.183	-.425	.363
Responsiveness	177	-.445	.183	-.642	.363
Assurance	177	-.181	.183	-.576	.363
Empathy	177	-.175	.183	.035	.363

Source: S*urvey Result (June, 2020)*

According to Hair et al., (1998), the most commonly acceptable value for (kurtosis/skewness) distribution is ±2.58. As shows in Table 12, all values of skewness and kurtosis for the transformed and standardized values have been found to be within the acceptable range.

In addition, Malhotra & Birks (2007) propose that normal probability plots are often conducted as an informal means of assessing the non-normality of a set of data. Hair et al. (1998) also explain that the plots are different from residuals plots in that the standardized residuals are compared with the normal distribution. In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal. If a distribution is normal, the residual line will closely follow the diagonal (Hair et al., 1998).

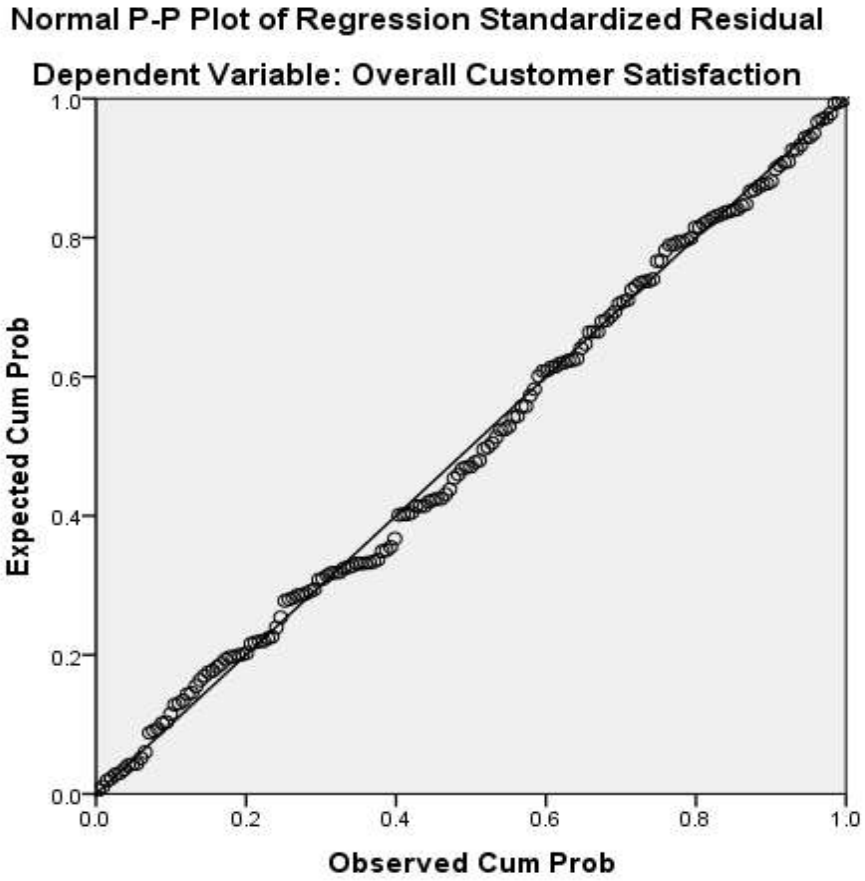

Figure 5 Normal P-P Plot of Regression Standardized Residual

As shown on Figure 5, the P-P plots follows a straight line which justifies the residuals were deemed to have a reasonably normal distribution, as suggested by Hair et al. (1998).

4.6.2. Multiple Regression Analysis

According to Marczyk, DeMatteo & Festinger (2005), linear regression is a method of estimating or predicting a value on some dependent variables given the values of one or more independent variables. Like correlations, statistical regression examines the association or relationship between variables. Unlike with correlations, however, the primary purpose of regression is prediction.

Multiple R is a correlation between the observed values of y, the values of y predicted by multiple regression models. Therefore, large values of the multiple R represent a large correlation between the predicted and observed values of the outcome. Adjusted R square was used to measure the percentage of variance in the dependent variable explained by the

independent variables. From the multiple regression equation, the standard regression coefficient (beta weight) was determined to compare the effect of each independent variable had on the variability of the overall purchase decision.

Table 13: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889[a]	.790	.783	.400

a. Predictors: (Constant), Empathy, Tangibility, Assurance, Responsiveness, Reliability

b. Dependent Variable: Overall Customer Satisfaction

Source: S*urvey Result (June, 2020)*

The model summary table shows the strength of relationship between the independent and the dependent variable. Based on the model summary results showed on Table 13, when customer satisfaction was regressed on the five independent variables, the independent variables contribute to statistically significant relationship ($p< 0.01$) on the dependent variable.

The coefficient of determination R^2 is a measure of how good a prediction of the criterion variable we can make by knowing the predictor variables. Accordingly, 79% for satisfaction of customer of the variation accounted for the dependent variable is due to the combined effect of the mentioned independent variables (tangibility, reliability, responsiveness, assurance, and empathy). But, sometimes R^2 tends to somewhat over-estimate the success of the model when applied to real world. Therefore, to see the success of our model in the real world, adjusted R^2 is more preferable than R^2. Therefore; the variation explained by the regression of all the predictor variables on customer satisfaction is 78.3%. The result from a study by Melkamu (2016) on ZAF Pharmaceuticals, one of the largest pharmaceutical importers in Ethiopia also showed that 62% of the variation on the customer satisfaction can be explained by the variability of the five dimensions of service quality.

The ANOVA table shows that the combination of variables significantly predicts the dependent variable. ANOVA tests whether the model is significantly better at predicting the outcome than using the mean as a best guess; specifically, the F-ratio represents the ratio of the improvements in prediction that results from fitting the model, relative to the inaccuracy that still exists in the model.

Table 14: ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.681	5	20.536	128.385	.000[b]
	Residual	27.353	171	.160		
	Total	130.034	176			

a. Dependent Variable: Overall Customer Satisfaction

b. Predictors: (Constant), Empathy, Tangibility, Assurance, Responsiveness, Reliability

Source: S*urvey Result (June, 2020)*

According to the ANOVA result shown on Table 14, F values is 128.385, which was significant at $p<0.001$. This result implies that there was less than a 0.1% chance that an F-ratio larger would happen by chance alone. Therefore, the regression model results in significantly better prediction of customer satisfaction with service quality dimensions (tangibility, reliability, responsiveness, assurance, and empathy) than if the researcher used the mean value of customer satisfaction with service quality dimensions.

Table 15: Coefficients of Service Quality Dimensions

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.256	.189		-6.655	.000
	Tangibility	.181	.055	.158	3.297	.001
	Reliability	.375	.076	.280	4.922	.000
	Responsiveness	.224	.073	.156	3.051	.003
	Assurance	.274	.060	.232	4.586	.000
	Empathy	.308	.075	.235	4.091	.000

a. Dependent Variable: Overall Customer Satisfaction

Source: S*urvey Result (June, 2020)*

Table 15 depicts the coefficients of the independent variables which show the relationship of customer satisfaction and each predictor. When beta value is positive, there is a positive relationship between predictor and the outcome, whereas a negative coefficient represents negative relationship. The beta values found for the predictors in this study have a significant p value which is less than .01. This indicates that there was a strong positive and statistically significant relationship between the independent variables and dependent variable. According to the findings of the current study, the effect of reliability was greater than that of empathy, assurance, tangibility and responsiveness respectively. Different studies showed strong positive and significant relationship between service quality dimensions and customer satisfaction. But the order and magnitude of predictor effect of each service quality dimension was not found similar. The difference in order, magnitude and preference of one dimension over the other mainly related to the type of service providing industries and sectors.

According to the overall regression analysis, the standardize beta value for reliability was 0.280 which shows reliability has relatively strong degree of importance for customer satisfaction than other predictors. The finding of the study was similar with the findings of Adebisi & Lawal (2017), Mehralian et. al (2016), Ahmad et. al (2009), Tefera (2018) and Meesala & Paul (2018). But the result is contrary with findings of the previous studies by Alhuwitat & Salem (2017) and Kitapci et al. (2014).

According to the result of this study, empathy was the second most important dimension affecting customer satisfaction. The regression analysis shows that empathy has a statistically significant positive effect on customer satisfaction with beta value of 0.235. The result was supported by the findings of Adebisi & Lawal (2017), Usanga & Murairwa (2017), Tefera (2018) and Kitapci et al. (2014) but contrary to Ahmad et al., (2009), Alhuwitat & Salem (2017) and Meesala & Paul (2018).

Assurance, the third most important predictor dimension for this study, has a statistically significant positive effect on customer satisfaction with beta value of 0.232. The finding was consistent with the findings by Adebisi and Lawal (2017), Usanga & Murairwa (2017), Ahmad et al. (2009), Tefera (2018), Kitapci et al. (2014) and Mehralian et al. (2016) but contrary to the findings of Alhuwitat & Salem (2017) and Meesala & Paul (2018).

The regression analysis of the study also showed that tangibility has a positive significant effect on customer satisfaction with beta value of 0.158 with Sig 0.001. The result was consistent to the findings of Adebisi & Lawal (2017), Ahmad et al. (2009), Tefera (2018) and Mehralian et al. (2016) but contrary to the findings of Alhuwitat & Salem (2017), Kitapci et al. (2014) and Meesala & Paul (2018).

The regression analysis also showed that responsiveness has a statistically significant (Sig 0.003) positive effect on customer satisfaction with beta value of 0.156. The finding was consistent with the results of Alhuwitat & Salem (2017) which found that responsiveness as the only dimension having a significant effect, Adebisi & Lawal (2017), Ahmad et al. (2009), Tefera (2018), Mehralian et al. (2016) and Meesala & Paul (2018) but contrary to the findings of Kitapci et al. (2014).

The objective of the regression in this study was to find a mathematical equation that could be used to find the impact of predictors on dependent variable (customer satisfaction). The specified regression equation takes the following form:

Equation; $CS=\beta1+\beta2(TAN)+\beta3(REL)+\beta4(RES)+\beta5(ASS)+\beta6(EMP)$

$$CS = -1.256 + 0.158TAN + 0.280REL + 0.156RES + 0.232ASS + 0.235EMP$$

$$CS = 0.158TAN + 0.280REL + 0.156RES + 0.232ASS + 0.235EMP - 1.256$$

Where

CS is the dependent variable (customer satisfaction)

TAN, REL, RES, ASS, and EMP are independent variables which denoted tangibility, reliability, responsiveness, assurance and empathy respectively.

Table 16: Summary of the overall outcome of the research hypothesis

Hypothesis	Result	Reason
Ha1: Tangibility (TAN) has a statistically significant positive effect on Customer satisfaction.	Confirmed	$\beta=0.158$, $p<0.01$
Ha2: Reliability (REL) has a statistically significant positive effect on Customer satisfaction.	Confirmed	$\beta=0.280$, $p<0.01$
Ha3: Responsiveness (RES) has a statistically significant positive effect on Customer satisfaction.	Confirmed	$\beta=0.156$, $p<0.01$
Ha4: Assurance (ASS) has a statistically significant positive effect on Customer satisfaction.	Confirmed	$\beta=0.232$, $p<0.01$
Ha5: Empathy (EMP) has a statistically significant positive effect on Customer satisfaction	Confirmed	$\beta=0.235$, $p<0.02$

Source: S*urvey Result (June, 2020)*

CHAPTER 5 SUMMARY, CONCLUSSIONS AND RECOMENADTIONS

This chapter presents the summary of the major findings of the study, the conclusions made out of the findings and the recommendations forwarded. It also presents the limitations of the study and recommended directions for future research.

5.1. Summary

The objective of the study was to assess the effect of service quality dimensions on customer satisfaction in the case of Private Pharmaceutical Importers, Ethiopia. The theoretical, conceptual and empirical related literature review showed that the five Service quality dimensions have a significant impact on customer satisfaction.

The researcher used a quantitative research approach by employing both descriptive and explanatory research design. The research data was collected through self administered structured questionnaires. The validity and reliability of the adopted SERVPERF instruments was tested. The sample size was determined using Kreijcie and Morgan sample size table for known population and respondents were selected using simple random sampling technique. The service quality was measured using the five service quality dimensions (tangibility, reliability, responsiveness, assurance and empathy) and the satisfaction level of respondents was measured using a five point Likert scale. A total of 177 questionnaires from the sample pharmaceutical wholesalers returned and descriptive statistics, correlation and multiple linear regression analysis were performed using a statistical tool SPSS V23.

The result of the background information of the respondents indicated that the majority of the respondents were male (72.9%). With regards to age category, 45.8% and 29.9% of the respondents were between 31-40 and 21-30 years respectively. Moreover, the majority were bachelor's degree holders (67.8%).

According to the findings of this study, all five dimensions of the service quality have above average mean score from the Likert scale 1 to 5. Responsiveness has the highest mean score (3.4393), followed by Empathy (3.3774), Reliability (3.2839), Assurance (3.2689), and Tangibility (3.0678). Regarding customer satisfaction level, 1.1 % of the respondents are strongly dissatisfied, 22 % are dissatisfied, 31.1 % are neutral that means neither dissatisfied nor

satisfied, 43.5 % are satisfied and the rest 2.3 % are strongly satisfied. The study also finds that overall service quality is significantly and positively correlated with customer satisfaction ($r=0.869$, $p<.001$).

The correlation analysis result using Pearson correlation reveals there is a positive and significant relationship between the service quality dimensions and customer satisfaction. Reliability has the highest correlation (0.789) with customer satisfaction followed by empathy (0.781), assurance (0.733), and responsiveness (0.703) and tangibility (0.670).

The regression analysis indicated that all service quality dimensions are important predictor of customer satisfaction. The study showed that 78.3% variation on the customer satisfaction was explained by the five dimensions of service quality. The standardize beta value have a significant p value of all independent variables which is less than .01. Reliability has the highest beta value (0.280) followed by empathy (0.235), assurance (0.232), tangibility (0.158) and responsiveness (0.156).

5.2. Conclusion

The study attempts to provide important findings to private pharmaceutical importers in order to improve the quality of service provided to their customers by providing information about the perceptions of pharmaceutical wholesalers regarding the service quality rendered and helps owners and managers to improve service quality and attain customer satisfaction. The primary objective of the study was to assess the effect of service quality dimensions on customer satisfaction in the case of private pharmaceutical importers, Ethiopia.

The finding of the study reveals that there were a significant portion of customers who were neutral (neither satisfied nor dissatisfied) or customers who were dissatisfied by the service they were getting from the private pharmaceutical importers which indicate that there was a problem on the quality of service delivered by private pharmaceutical importers.

The findings of the study also showed that there was a positive and statistically significant relationship between all of the five service quality dimensions and customer satisfaction which means each attributes of the service quality dimension have an important effect on customer

satisfaction and improvement in each dimensions of the service quality and delivering a high quality service will lead to a higher customer satisfaction.

The result of the study further revealed that customer satisfaction can be explained by the variation of the five service quality dimensions. Reliability, empathy and assurance were found to be the highest predictor values respectively which suggest working on the each attributes of service quality dimensions based on their predictor value will improve the quality of service provided and the level of customers' satisfaction.

5.3. Recommendations

On the basis of the findings and conclusions of this study, the researcher forwards the following recommendations to the management of private pharmaceutical importers.

- A significant portion of the customers are dissatisfied or neutral, so the management of private pharmaceutical importers need to focus, plan and work in order to improve the quality of service provided and strive for improving the satisfaction level which helps them not only maintain existing customers but also attract new customers.
- As the study showed that 78.3% of the variability of customer satisfaction was explainable by the variability on the service quality dimensions and all the dimensions have a statistically significant effect, private pharmaceutical importers need to work intensively on improving all service quality dimensions by giving emphasis on the indicators of each service quality dimensions.
- According to the result of the study, reliability has the highest predictor value on customer satisfaction followed by empathy and assurance. So private pharmaceutical importers have to focus and work on improving each attributes of reliability, empathy and assurance dimensions of the service they are providing in order to raise the level of quality of service delivered and satisfy their customers.
- Since majority of the attributes and indicators of the service quality dimensions were directly related to employees, the researcher recommends private pharmaceutical importers in order to have regular evaluation and training program for employees regarding the attributes of service quality dimensions in order to improve the quality of service delivered by the employees.

- The researcher also recommends that higher educational institution teaching pharmacy professional need to devise a program and work on producing disciplined, knowledgeable, well mannered service providers who have a better understanding of the service quality dimensions.
- The practice of private pharmaceutical importers were highly regulated, regularly inspected and evaluated by EFDA. So in addition to the activities performed by EFDA to ensure appropriate practice standards are met by the importers, the researcher recommends EFDA to devise a plan to assess the quality of service delivery and work with importers in order to help them to improve customer satisfaction in all dimension of the service delivery.
- The researcher recommends Ethiopian Pharmaceutical Association in order to give recognition for those importers who excelled on delivering quality service and satisfied their customers. The researcher also recommends the association to give a continuous training program for its members regarding delivering a quality service.

5.4. Limitation and Suggestion for Future Research

- One of the limitations of the study was private pharmaceutical importers were evaluated as a whole when assessing the effect of service quality on customer satisfaction. Therefore; future research need to take a specific private pharmaceutical importer in order to understand the effect of service quality on level of satisfaction and the variability of the effect between different private pharmaceuticals importers.
- This study only includes respondents from Addis Ababa. Therefore; the researcher suggests that for future research to include all customers of the private pharmaceutical importers outside of Addis Ababa in order to make a better generalization of the results based on the acquired data from the entire country.
- The other limitation of the study was it only focused on the service quality dimensions and other factors affecting customer satisfaction including price and quality of product were not considered. Thus, the researcher recommends future researchers to include other factor when studying the overall customer satisfaction in order to capture the impact of other factors affecting the service quality in addition to the service quality dimensions.

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ANNEX - RESEARCH QUESTIONNAIRE

ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF MASTERS OF BUSINESS ADMINISTRATION

Dear respondents;

My name is Yelbeneh Abayneh. The purpose of this study is for a partial fulfillment of the requirements for the Masters of Business Administration in St. Mary's University School of Graduate Studies. The objective of this questionnaire is to gather information on the Effect of Service Quality Dimensions on Customer Satisfaction: The Case of Private Pharmaceutical Importers in Ethiopia. All information you will provide will be kept strictly confidential and shall be used for academic purpose. However, the findings of the research may be used to improve the quality of services rendered by private pharmaceutical importers to its customers.

The questioner has three parts. Part one deals with the background of the respondent, part two deals with Survey on the Perception on the actual service provided (performance) and part three is all about Survey on the overall customer satisfaction on the quality of service. The questions don't take you more than 5 minutes to complete so you are kindly requested to fill all questions completely.

Thank you very much in advance for your cooperation and time!

Please contact me for any questions you might have.

Yelbeneh Abayneh +251963 729027

Email: yelbenehaby@gmail.com

Part One: Background Information

Please make a tick mark **(X)** or fill in the blank space.

1. Sex: Male ☐ Female ☐
2. Age: 21-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ >60 ☐
3. Educational background:

   Diploma ☐ Bachelors Degree ☐ Master Degree and above ☐
4. Work Position:

   Technical Manager ☐ Store Manager ☐ Owner ☐

   Technical Manager and Owner ☐ Store Manager and Owner ☐

   Other ☐ If other specify _____
5. Ownership of Wholesale:

   Sole Proprietorship ☐ Private Limited Company (PLC) ☐ Share Company ☐
6. Year of Service of the Wholesale:

   ≤5 Years ☐ 6-10 Years ☐ 11-15 Years ☐ ≥ 16 Years ☐
7. Monthly Sales of the Wholesale:

   ≤ 200,000 ETB ☐ 200,000 to 500,000 ETB ☐ 500,000 to 1 Million ETB ☐

   1- 5 million ETB ☐ ≥ 5 Million ETB ☐
8. Main mode of payment used by your wholesale to make payment for pharmaceutical importers:

   Credit ☐ Cash ☐ Cash and Credit ☐

Part II: Service quality dimensions

DIRECTIONS: The following set of statements relate to your feelings and perceptions about the services actually provided by Private Pharmaceutical Importer. For each statement, please show the extent to which you believe Private Pharmaceutical Importer has the feature described by the statement. There is no right or wrong answers. Circle any of the numbers that best shows your perceptions and feeling about Private Pharmaceutical Importer.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Private Pharmaceutical Importer's have up-to-date equipment and technology (computers, air-conditioning, etc)	1	2	3	4	5
Physical facilities (office, parking, and store) of Private Pharmaceutical Importer's are sufficient, visually appealing and clean.	1	2	3	4	5
The employees delivering the services are well dressed, neat, disciplined, professional in their appearance	1	2	3	4	5
Vehicles used in transportation and Materials associated with the service are visually in a good condition and visually appealing	1	2	3	4	5
When Private Pharmaceutical Importer promises to supply service within a specific time, services are provided on time as promised to be provided.	1	2	3	4	5
The employees show sincere interest to solve the problem of the customer and they are sympathetic and reassuring	1	2	3	4	5
The employees perform error free service and they are dependable	1	2	3	4	5
Records of your orders, payments and delivery are kept accurately and in order	1	2	3	4	5
Employees makes the information easily obtainable and always provide basic information's (such as expiry date, expected date of deliverance of product, steps in the logistics)	1	2	3	4	5
The employee gives a prompt service	1	2	3	4	5
Employees are happy to help customers and willing to serve customer	1	2	3	4	5
Employees are always very helpful and not too busy to respond to the customers' requests.	1	2	3	4	5
The employees have the required skill in providing services and are trust worthy	1	2	3	4	5
You feel safe and confident with the overall service provided	1	2	3	4	5
Employees are constantly polite	1	2	3	4	5

The employees always provide you the adequate information on the service requested	1	2	3	4	5
Employees have the authority to solve your problems	1	2	3	4	5
The employees gives individual attention and show sincere interest in solving any product related problems	1	2	3	4	5
The employees do promptly understand your specific needs	1	2	3	4	5
The Private Pharmaceutical Importer and its employees have the customers best interest at heart	1	2	3	4	5
Office operating hours are convenient for to the customers	1	2	3	4	5
Payment methods used by the Private Pharmaceutical Importer are convenient	1	2	3	4	5

Part Three: Over all Service quality and Customer Satisfaction

In this part of the questionnaire, your valuable information on the overall level of service quality and your overall level of satisfaction on the service provided will be sought. Please circle a number that shows yours over all service quality perception and level of satisfaction with respect to the service rendered by Private Pharmaceutical Importers.

Over all service quality

	Worst	Poor	Neutral	Good	Excellent
Over all service quality of Private Pharmaceutical Importers	1	2	3	4	5

Level of Customers Satisfaction

	Strongly dissatisfied	Dissatisfied	Neutral	Satisfied	Strongly Satisfied
Overall, how satisfied are you with the services provided by private pharmaceuticals importers your wholesale work with?	1	2	3	4	5

Thank you again for filling the form.