

**ROLE OF EFFECTIVE STERILIZATION PROCESS IN ACHIEVING  
CUSTOMER LOYALTY AND BUSINESS GROWTH IN HEALTHCARE  
ORGANIZATION**

A Study of

Ghurki Trust Teaching Hospital



by

**Name of Student: Tahir Ahmed Malik**

**Commonwealth MBA/MPA Program  
ALLAMA IQBAL OPEN UNIVERSITY  
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## ABSTRACT

The sterilization process is an essential and effective process that holds a significant position in the healthcare industry. Sterilization process is a technique that is directly associated with the speedy and effective recovery of the patients. Healthcare patients have traditionally been treated by the healthcare workers that must be provided with proper training. Effective sterilization process can be effectual in healthcare organizations because the treatment of patients with proper procedures could be a reason of business growth and their satisfaction as well. Healthcare industry itself is considered as a sensitive industry that must have excellence in its all aspects. The lives of the patients are at risk when treated in hospitals and a minor avoidance could lead to serious complications; therefore, it is essential yet necessary to enhance the service quality in order to attain the customer's loyalty. Considering the effectiveness of sterilization process the present research has intended to understand the role of sterilization process in achieving customer loyalty and business growth in healthcare organization. The group of people employed in the present research were the population of Ghurki Trust Teaching Hospital. The population included the employees, linked management level and technical resources of the hospital. All the members of the population were considered as the participants of the study from Ghurki Trust Teaching Hospital. A questionnaire was developed and structured for the data collection process. The questionnaire was based on the variables regarding the role of effective sterilization process in achieving customer loyalty and business growth in healthcare organization. The data has been gathered with the help of structured questionnaire. The questionnaire structured for the data collection procedure was divided in to sections that included product quality, customer's satisfaction, customer's retention and business growth. The dependent variables considered for the study were customer's retention, customers' satisfaction and business growth; whereas, the independent variable was the product quality. Factors were also involved within these variables accordingly. The researcher distributed 200 questionnaires among the participants of the study from which a total of 121 responses were obtained with complete information. The employees, linked management level and technical resources of the hospital received the questionnaires from the researcher to fill in the required information. The participants were given an informed consent form at the time of data collection in order to assure them regarding the privacy of the data. The data gathered from the participants through the questionnaire based on Likert scale was then analysed through the Statistical Package of Social Sciences (SPSS) version 20.0. The data

has been analysed quantitatively in order to have appropriate outcomes. The results of the study has indicated that Finding new customers and doing business with them takes time, effort, and money, Attitude of staff has great impact on customer satisfaction., Customer satisfaction is a path to long term business profitability, Customer satisfaction is a main key of success., Satisfied customers become the reason of business growth. Providing infection free tools and competent treatment is the basic right of the patients. Substandard sterilization breaks the confidence of the customers, Substandard sterilization process can harm the patient's life and can put the patient in discomfort and pain. Effective Sterilization process plays an important role in the healing process after the procedure. Proper sterilization can save the cost of antibiotics and postoperative complications. It has been recommended that knowledge of quality services and associated training must be focused and strategies should be implicated that enhances the business. Training, skills and developmental opportunities must be promoted for attaining the customers' satisfaction and augments the business.

**Keywords:** Sterilization, patients, hospital, healthcare, customer, loyalty, satisfaction, growth

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“In the name of Allah, the most merciful and beneficent”

I am thankful to all of them who made possible for me to complete my project. But at the same time I am greatly thankful the supervisor of my project, who helped me throughout in my project.

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## **DEDICATION**

I dedicate this project to respected parents, brothers, sisters, teachers and friends whose love, prayers and magnanimous supports have a great contribution in my carrier development and in completion of my thesis.

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## CHAPTER I: INTRODUCTION

### Background

Sterilization process is an effective way to recover patients after the surgery or operations. The failure of sterilization process may increase the risk of patients' health. It is essential for the educators, managers and members of the healthcare staff to take the responsibility of effective sterilization process in the healthcare industry (Kemp et al., 2014). They are equally responsible to facilitate the patients by monitoring chemical, mechanical and biological monitoring of the process. The process failures and relevant issues must be investigated and the failure and its causes must be timely identified. The risk assessment and other corrective actions could assist the tools of investigation and the main causes of the failure (Lonial & Raju, 2015; Berkowitz, 2016).

Sterility assurance needs rapid and continuous attention and focus to the performance of the sterilizer along with other associated processes (Kumar & Srivastava, 2016; Groves et al., 2016). It may be complicated to investigate the failures during the process of sterilization but it is important to identify the root causes in order to ensure the customer satisfaction. Continuous improvement of quality and safety is needed to ensure the chemical, physical and biological monitoring (Khaidir et al., 2014). Different studies have been conducted in order to ensure the quality and improvement of healthcare industry regarding different matters (Poku et al., Berkowitz, 2016). Sterilization has been considered as one of the important matter that is required to be investigated to fill the gap in the literature.

A study by Aiken et al., (2002) recruited three healthcare organizations in order to examine the quality and improvement in this sector. The aim of the study was to identify the part of the perceived services in the customer satisfaction development in the healthcare sector. The study has also focused on the role of physicians and offers recommendations to enhance the loyalty and satisfaction of the patients. The study has reflected that the organizations can be advantageous to the management when the critical attributes are focused and identified as a part of the relationship management program for the customers. The study has highlighted and identified that the perception of the customers at the service attribute level can be the main cause of generating the loyalty and satisfaction among the customers. It has shown the significance of the customers' satisfaction which is required to be enhanced within the hospital settings.

Healthcare is the main and important along with a personalized service that a consumer experience. An effective and well status is important for the healthcare organization in the increasingly developing and growing environment. A study by Del Brío et al. (2007) explored the idea and notion that developed the relationships based on emotions in a healthcare sector by employing both qualitative and quantitative evidences.

It is known by everyone that world has been modified in its means of communication and internet has played an imperative part in this enhancement. It is obvious that due to this modification the lives of people have been affected enormously. By looking into the major existence of social media in the routines of people, this is become an interesting topic of research due to the fact that people's lives has been influenced greatly at their each and every aspect such as their buying decisions, their shopping practices, their emergency decisions and also their responses towards greater or better marketing of brands on social networking sites (Shirky, 2011). Companies either big or small in the recent years took the advantage from social networking sites and made these sites their support in order to bring them back in business scenario. Healthcare sector has also been influenced greatly due to the increasing demand of quality healthcare processes among the consumers. It has been seen that several brands that endured extreme downfall and economic crisis have restrained by their branding or marketing on social networking sites such as Facebook is utilized by almost every single brand and is considered as most successful social networking site in terms of changing consumer buying decisions. These major social networking sites are given an outlook about the strength of social media among several different mediums of communication due to its convenient and affordable access within each and every part of the world.

Healthcare sectors including educational institutes as well as hospitals and its reputation have been greatly observed through the internet. In the world of business, social media has also taken a huge success; according to a survey report, people at the workplace in existing era are allowed to use social networking sites for professional purpose and this percentage has been increased 51 percent in the last few years. On the other hand in crisis situation, it has been seen that social networking sites are the fastest mediums to spread any news related to any severe or non-severe incidents. People rely on social networking sites in almost every means as the information displayed on these sites has several surfaces. During the last few years, there is a tremendous increase in the number of users of social networking sites as well as other social

mediums such as blogs, virtual worlds and other communicating sites. Blogs and posts regarding the good and bad experiences of the people in the healthcare sector have also been observed on social media sites through the internet. As a result, the evaluation of strength or power of social media is indispensable in order to unveil several other positive facets of social media by exploring the allied variables of social media (Solomon, 2014). Due to this tremendous transformation of social media, people have started giving their feedback regarding any particular matter through online means of interaction, especially in the healthcare sector in order to make people understand the effective place for the care of patients.

Customer's loyalty is yet another important aspect that is essential for the growth of any business, especially in the healthcare sector. Loyal customers are important and it is the responsibility of the service providers to ensure the loyalty and satisfaction of the customer's for the promotion of business and its growth. Different factors are involved with the customer's loyalty to develop additional sales on the particular customers. A study conducted by Andersson, & Karlström (2014) suggested that there is an association between the marketing factors and customer loyalty. The factors that are essential to gain the customer's loyalty include the competence, conflict handling, commitment and satisfaction. Shared values, empathy and competence are also included in the factors related to the customer's loyalty. Another study by Lonial & Raju, (2015) also showed that customers' perspective at the service attribute stage that can be often the main or key to the management and generation of the loyalty and satisfaction of the customers. It also has the importance for the loyalty and satisfaction of physicians that can be enhanced within the hospital environment.

### **Objective of the study**

The study has intended to identify the effect of effective sterilization and Customer Loyalty and also to identify the effect of effective sterilization and Business Growth. The researcher has intended to elaborate the importance and significance of the nature of the study and also explored that how it is important not only for the customers but also for the healthcare organizations to know about the main reason of increasing dissatisfaction of the customer with the healthcare setup. When the customers get an infection from a hospital and they suffer, they give their negative feedback online and also by other means that may affect the reputation of the

hospital. These practices break the confidence and loyalty of the customers. For all these reasons, the researcher has intended to explain the effects and the relationship of these factors.

### **Background Information**

In order to attain the main aim of the study, the researcher has taken the employees of the Ghurki Trust Teaching hospital to identify the effect of effective sterilization process and its impact on business growth and customers' satisfaction. The Ghurki Trust Teaching Hospital, in Ghurki, founded by Asghar Ghurki Trust in 1991 is a 450 bedded hospital, situated at Jallo More, one and a half kilometer from the Lahore Medical and Dental College with which it is affiliated. It is serving more than 1.2 Million people of the surrounding village. The present study has intended to observe the consequences of improving sterilization process in terms of customer's loyalty and satisfaction. Many organizations have been observed enhancing the quality of their sterilization process in order to achieve the satisfaction of customers. The scope of the research is broad and comprehensive because this research is not only based on a single organization but also based on the whole Healthcare Organizations. The population of Ghurki Trust Teaching Hospital has been targeted, which may be enough to represent the role of sterilization process in other hospitals as well.

### **Problem Statement**

Healthcare sector is the main sector which is needed to be focused in order to provide better healthcare opportunities to the people. Patients must be treated with all safety precautions and improved way of cure as well. It has been observed as the right of patient in the hospital to attain better healthcare services through appropriate processes. Among several processes before and after surgery, sterilization process is one of the essential and most important processes that are needed to be enhanced in the hospitals to provide proper treatment to the patients after surgical process. Patients are at risk of infection and even life when they are not provided with appropriate and suitable processes. Therefore, the present research has contributed to examine the role of effective sterilization process in achieving customer loyalty and business growth in healthcare organization Ghurki Trust Teaching Hospital.

### **Significance of the study**

The present study is associated to the healthcare sector and highlighted the role of appropriate sterilization process that may be the important reason of business growth through the customer retention and loyalty. The healthcare sector can take advantage from the outcomes of present study and may effectually understand the causes that assist the hospitals to identify the factors responsible for the growth. Corrective measures are also suggested in the present study which can be beneficial for the healthcare industry for developing business in a more enhanced and comprehensive manner through the customers' satisfaction, loyalty and retention.

### **Research Questions**

One of the significant research question related to the research is that:

**“What is the role of effective sterilization process in achieving customer loyalty and business growth in healthcare organization?”**

After this question, there are a number of sub questions that can be raised:

1. What is implicit under the statement ‘Effective sterilization process is creating a sense of power among people associated with dissimilar fields?’
2. To which extent sterilization process is powerful?
3. How can we measure and evaluate the power of this highly strengthen sterilization process?
4. What is meant by the power of effective sterilization process in influencing consumer buying behavior?
5. What is the role of appropriate sterilization process in emergency situation as well as in its management and how we can evaluate its importance in it?
6. Is the sterilization process in the healthcare sector is enough prevailing that it can support to enhance the business while giving support in terms of their brand's marketing?
7. What is the significance of sterilization process and how it acts so conveniently in the lives of people?

### **Structure of Thesis**

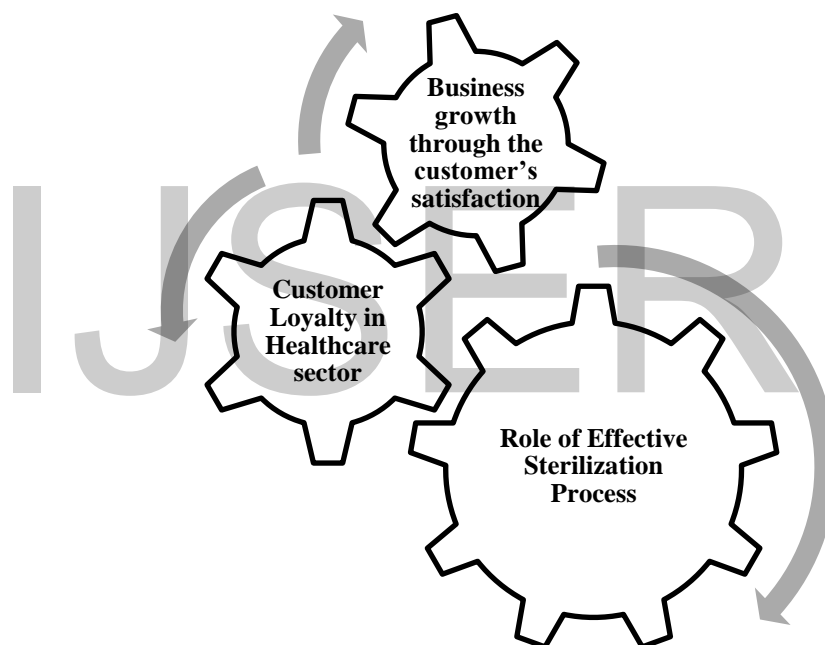
There are two major parts on which the thesis is consisted of; the first part is the theoretical section while the other part describes the empirical research related to the topic. Detailed literature has been described and explained by reviewing several recent studies related to social media and its major part in routine practices. In theoretical section, a framework has been proposed along with explaining its importance. On the other hand, the empirical section discusses the methodological approach taken for the data collection while representing the employed instruments, sampling techniques, data analysis and the outcomes. The empirical section comes to an end by specifying the conclusions, restrictions and few valid recommendations for future studies.

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## CHAPTER II: LITERATURE REVIEW

### Introduction

In this chapter, several studies have been reviewed with the purpose to understand the objectives of previous researches in the context of social media power. Several academic resources have been used including both books and journal articles. It has been tried that all the selected resources must satisfy the topic of the research. This chapter has explained the main factors of the objective of the research including the role of effective sterilization process, Customer loyalty in healthcare sector and Business growth through the customer's satisfaction in the healthcare sector. Following figure illustrates the main factors discussed in the literature of the present research.



**Figure 1:** Main factors of the Literature

The research would play a significant part in the literature aligned with healthcare sector and its strength in different practices of human world. The research will contribute in understanding the specific role of sterilization process in business world as well as how the firms utilize this medium in branding of their services. Further on, this research will prevail in several existing fields associated with role of effective sterilization process, Customer loyalty in healthcare sector and Business growth through the customer's satisfaction in its success or failure.



## **Role of Effective Sterilization Process**

Many studies that explore the infections after the inappropriate cleansing of patient care items have focused the need of suitable and proper sterilization processes. A study conducted by Rutala & Weber (1999) provided some suggestion based on the considered method of sterilization and disinfection of the patient care based on the targeted use of the items. Different sterilization methods have been recommended to be employed during the patient care in the healthcare settings. Sterilization processes are essential and important to be used because it assist and ensure the appropriate use of invasive and noninvasive medical tools; although, this needs suitable adherence to current sterilization guidelines and cleaning (Stumbo, 2013; Matser et al., 2004; Canetti et al., 1963; Ncube et al., 2008).

All invasive methods engage the interaction between the surgical instruments and medical devices and the sterile tissue of patient or mucous membrane (Weinstein et al., 2001; Rutala & Weber, 2010; Garner & Favero, 1986). The main risk of the associated procedures is the entrance of pathogenic microbes that may easily cause infection. Risks are associated with the improper use of sterilize or disinfect reusable medical tools (O'Connor et al., 2016; Herwaldt, & Rutala, 1996). The extent of the sterilization or disinfection is highly dependent on the subjected use of the critical items or objects that includes surgical tools. Cleaning should always lead to high level sterilization and disinfection (Rutala & Weber, 2007; Rutala & Weber, 2001). Users must always keep in mind the advantages along with the disadvantages of the specific procedures while selecting the sterilization and disinfection process (Wade et al., 2015). In healthcare settings, adherence to the provided suggestions within the literature must be enhanced and adopted in order to decrease the infections related with the patient care items (Rutala & Weber, 2016; Weber et al., 2016). It has been suggested that healthcare authorities must recognize whether the disinfection, cleaning and sterilization processes are indicated on the basis of each item used (Anderson et al., 2015; Wong et al., 2015).

Numerous studies have targeted the lack of compliance with the guidelines associated with and relevant to the sterilization and disinfection (Pervez et al., 2014; Dai et al., 2017; Galante et al., 2017). The compliance failure with the scientific guidelines has originated various outbreaks of infection. Suggestions regarding the sterilization and cleaning of the endoscopic tools have been published and must be followed strictly (Iannotti et al., 2017; Solon & Killeen, 2015). Unfortunately, it has been observed that the personnel are not strictly

following the instructions or guidelines to encounter the outbreaks that are constantly occurring in the form of infections among the patients. Training and developmental programs must be promoted among the individuals who are a part of the reprocessing of the endoscopic tools (Weber et al., 2016).

When appropriately used, sterilization and disinfection can make sure the safe employment of the invasive and noninvasive medical equipment (Gee, 2017). The process of sterilization and disinfection depends on the targeted or subjected use of the medical equipment. The critical items should essentially be sterilized before using and must undergo high level of sterilization process as well. Cleaning must also lead to high level of sterilization (Rutala & Weber, 1999).

### **Customer Loyalty in Healthcare sector**

Several studies have worked out the better outcomes of the customers' experiences in healthcare sector by providing benefits and satisfaction to the customers (Abdelfattah et al., 2015; Kondasani & Panda, 2015; Pitt et al., 2016). Social media strategy can also be an effective way to provide and offer awareness among the patients about the quality and standards of the healthcare services provided within the hospital setting (Srinivasan & Saravanan, 2015). Customers' loyalty must be the main concern for the healthcare sector. Human patient experience must be considered within the hospital settings. Among all the industries, business competitions have long been motivated and promoted as a manner to augment the patient's value. In other way, competition is effective to ensure the better and enhanced supply of products and services in order to fulfill the requirements of the customers (Marković et al., 2014). A study conducted by Rivers & Glover, (2008) examined the complicated issues and associations regarding the healthcare sector. Different literature searches were conducted which are taken in qualitative research design in order to achieve the aim of the research. Numerous perceptions of competitions and the nature of the quality of the services were examined that are provided to the patients within healthcare industry. Empirical explorations had assisted to recognize the areas with important impact on the satisfaction of patients while maintaining and developing the high quality services at much reasonable cost within a competitive market (Minvielle et al., 2014; Reisenwitz, & Gupta, 2016).

The healthcare industry is always surrounded by a number of challenges and the increased competition based on the service quality of the healthcare has not been identified yet. The knowledge regarding the drivers of satisfaction of the customers has not been understood with the present literature. It has been observed through numerous studies that there is no proper conclusion to the solution and contradictions are also observed (Shabbir et al., 2016).

Another research conducted by Astuti & Nagase, (2014) examined a model based on the patient loyalty from the perception of association among the satisfaction of patients and marketing. The data gathered was analyzed in two different but associated stages using structural equation model. It has been observed that the satisfaction of the patients directly influenced the loyalty of the patients (Zhou et al., 2017). It has been recommended that the healthcare providers can enhance and augment the satisfaction of patients by commitment and trustworthiness. These factors can be considered essential and effectual for attaining the loyalty of the customers and eventually achieving the business growth objective. Customers are always included by the service providers in the product development procedure in order to maintain the relationships and impress the customers in an effective manner (Han & Hyun, 2015). Once the satisfaction and loyalty of the customer is attained, especially in the healthcare sector, a long term association is likely to be developed between the healthcare services and the customer (Tweneboah-Koduah & Farley, 2015).

### **Business growth through the customer's satisfaction**

When the healthcare sector is considered, everyone take it to be different from the retail business because the shopping malls and restaurants are not dealing with the risk of life situations (Wang, 2015; Kasiri et al., 2017). But, clinics and hospitals are almost similar to that of retail business scenario because both employ staff members to provide services to the customers. Patient's experience must be measured when the healthcare sector needs to put patients at the heart of organization (Ismail et al., 2017). The satisfaction of patients must not be underestimated as it is directly associated to the revenue of the organization. It is essential to understand that what specific factor is needed to be enhanced within the hospital settings which are directly linked to the business goals (Menguc et al., 2017). The factors that have strong and effective influence on the satisfaction of patients must be enhanced and perked up to the requirements in order to have business growth (Astuti & Nagase, 2014; Lai et al., 2015).

Techniques have been embraced and long being argued regarding the satisfaction of the patients and their feedback across the healthcare industry. Future of the healthcare sector needs to be progressed in almost all the developing as well as developed nations of the world (Zhao et al., 2015; Ho et al., 2014; Mosadeghrad, 2014).

It has been explained by Holt (2016) that being in touch with an assorted group of people is significant for capitalists for the reason that it provides them access to several resources and information as well. In the literature of social media in the context of business start-ups, it has been found that there are two major opposing models of entrepreneurial networks which are based on the benefit of low information redundancy in networks (Konrad, 2013) while the other is based on connecting networks for long-term associations (Kasemsap, 2014). Entrepreneurship and new business startups has been found extremely successful with the help of social networking sites due to the fact that new entrepreneurs can reach maximum number of people within seconds (Brooks et al., 2014), and this phenomena has also been supported by the study of Bright et al. (2015) as the study used quantitative process to analyze the impacts of social media on new business startups. Diversity plays a significant role in new business startups as it is important for entrepreneurs to utilize resources on social networking sites in diverse ways which include their educational background, their occupation and their experience to use the strength of social media (Inge Jenssen & Greve, 2002).

The satisfaction of the customers is considered as a direct indicator of the complete services offered and it is important to be assessed affirmed on the basis of experience during the service delivery procedure (Ahmed et al., 2017; Poku et al., 2017). Satisfaction comprises of the feeling of gratefulness or disappointment that is usually derived from the comparison between the performance impressions and the expectations of the customers. Several investigators have explored that the patient satisfaction and the consumer satisfaction can never be equated. There are several roles and differences played by the expectations, perspectives and disconfirmation of the patients that have not been fully explored or understood (Makanyeza et al., 2017; Özer et al., 2017; Menguc et al., 2017; Rahimi et al., 2018). Several researchers also reported that different patients face themselves in association to healthcare system and it is likely that few patients may usually stay passive and not understand the services offered. Patients may have different and complicated set of essential and relevant beliefs that may not be disclosed in regards of satisfaction. It has been reported that the satisfaction of patients depends mostly on the personal

features that may have strongest impact on the satisfaction level. Several researches have contributed to understand the significance of the efforts of the organizations associated with healthcare sector in order to develop the loyalty and satisfaction among customers by emphasizing on the factors relevant to the patients satisfaction. Sterilization processes are important feature that can attract the customers and satisfy their needs and requirements after surgical treatments. The risk of infection could be easily decreased by the usage of proper sterilization process and this can eventually influence the customer's satisfaction positively. Facilitating the personal experiences of the customers/ patients concerned with the sterilization process could be highly beneficial for the growth of the business as well (Pitt et al., 2016). The social media provides a platform to all people in different manners; therefore, there is no offense to say that it also supports major events and many emergency incidents in order to make people aware about these incidents. Social media helped a number of companies in several ways such as in their marketing, in changing customer buying behavior, in crisis preparedness and in providing many online shopping platforms to people within each and every country (Zins, 2001; Mattila, 2004). Social media has been enlarging its sphere from country to country; and due to this enlargement, people are modifying their ways of communication and their daily routines; therefore, social media strategies could also be effective in order to promote the quality services of the healthcare sector (Castells, 2015; Gee, 2015). The feedbacks of the customers must be saved and given attention in order to attract more customers towards the hospital settings and environment.

## CHAPTER III: RESEARCH METHODOLOGY

### Introduction

The chapter of methodology has contributed towards introducing and developing the plan regarding the collection and evaluation of the data gathered to examine the role of effective sterilization process in achieving customer loyalty and business growth in healthcare organization. This chapter has effectively used an empirical procedure to judge the effectiveness of sterilization process for the achievement of loyalty from the customers and business development. The variables regarding the objective of present study have been examined using a sequence that is research philosophy along with the investigational approach and design utilised in a systematic way. The chapter has also discussed an appropriate sampling technique in order to continue the evaluation process. The data collection and evaluation procedures have also been described in detail in the current section. Lastly, this chapter also gives the ethical consideration taken during the data collection procedure. The steps of the research taken out to explain this chapter has been presented in the following figure 2. It has been recognised that the study has employed several steps in order to explain the aspects of this chapter. The figure illustrated that research philosophy, research approach and research design, participants of the study/population, research instrument, variables of the study, sampling technique; sample size, research process, ethical consideration, and data analysis have been explained in this chapter to fulfil the requirement of the research.

### Model of Hypotheses

H<sub>A1</sub>: There is a positive impact of effective sterilization process on the customers' satisfaction

H<sub>A2</sub>: Sterilization process may enhance the chances to cure the injury in an effective manner

H<sub>A3</sub>: Customers are more likely to be attracted towards the use of sterilization process after surgery

H<sub>A4</sub>: Business is expected to be grown with the effective sterilization process in healthcare sector

### Research Philosophy

Positivism and interpretivism are the two main and effective research philosophies that are involved in different types of researches including academic and business researches. These philosophies are related to the design and development of the research methods as well as data

collection procedure. Qualitative researches mostly use and employ interpretivism approach while the positivism philosophy is mostly associated with the quantitative research methodology. In this specific research, it has been assumed that sterilization process has the major influence in the healthcare sector and the present research has been observed influential in examining the objective of the research.

### **Research Approach and Research Design**

Regarding the research approaches, there are two main approaches used in the academic practices that are deductive and inductive techniques. Inductive approaches are commonly linked to the qualitative research approach while the deductive approach is linked with the quantitative method of research; whereas, there are no set of rules and regulation because some qualitative studies may employ deductive approach. Mixed research designs are also employed by various research studies so there can be utilization of both the inductive and deductive approaches. Moreover, in the present research, the deductive approach has been employed because quantitative research design has been considered as the main way to evaluate the research outcomes and therefore the research philosophy is based on the positivism, particularly for data collection. The descriptive research design has been chosen more particularly because of the adjustments in data using quantitative approaches and this made the study to contribute towards attaining effective outcomes for the research.

### **Participants of the study/Population**

The group of people employed in the present research were the population of Ghurki Trust Teaching Hospital. The population included the employees, linked management level and technical resources of the hospital. All the members of the population were considered as the participants of the study from Ghurki Trust Teaching Hospital.

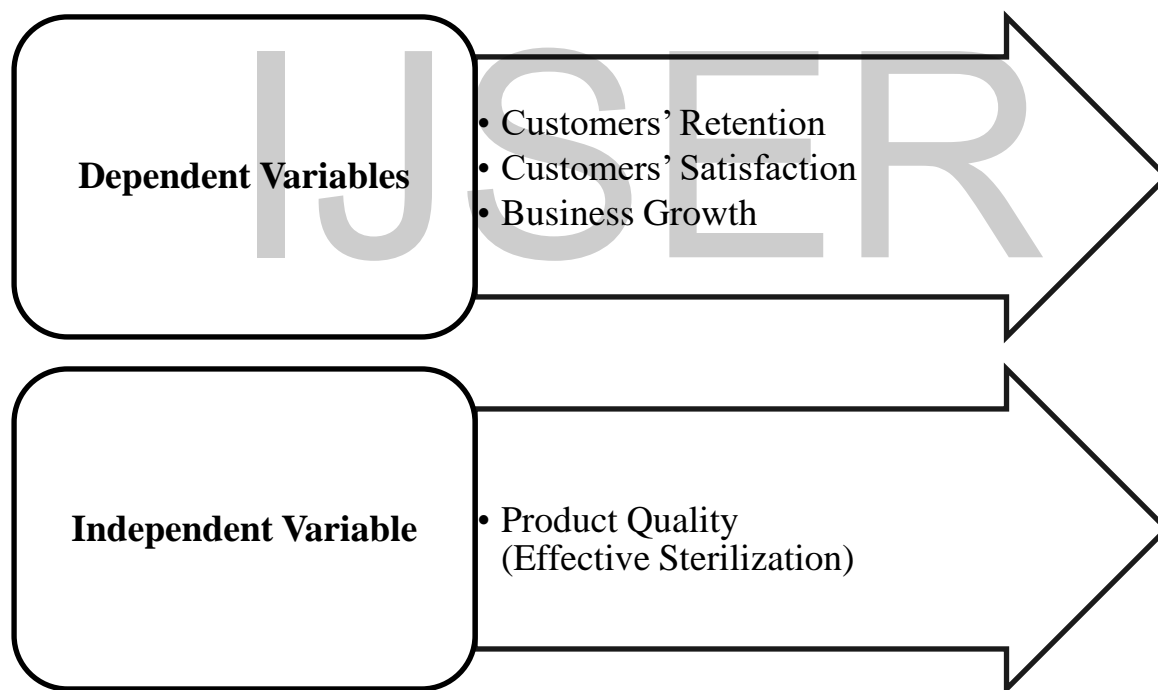
### **Research Instrument**

A questionnaire was developed and structured for the data collection process. The questionnaire was based on the variables regarding the role of effective sterilization process in achieving customer loyalty and business growth in healthcare organization. The questions included in the questionnaire were based on the factors that may assist to evaluate the possible

outcomes of the study. The questionnaire was based on the Five-point Likert scale approach that has been found effectual in understanding the perspective of the participants. The Likert scale approach allows the respondents to express the extent to which they agree or disagree with a specific statement. There is also a section in the questionnaire regarding the demographic profile of the participants which was also required to be filled by the respondent.

### Variables of the study

The questionnaire structured for the data collection procedure was divided in to sections that included product quality, customer's satisfaction, customer's retention and business growth. The dependent variables considered for the study were customer's retention, customers' satisfaction and business growth; whereas, the independent variable was the product quality. Factors were also involved within these variables accordingly.



**Figure 2: Variables involved in the Research**



### **Sampling Technique**

A non-probabilistic approach has been employed in the current research in order to have effective outcomes. Convenient sampling technique has been employed because it allows the researcher to select any member of the sample population who are readily and conveniently available to provide the data. The convenient sampling approach is an effective way of data collection that has been used by many previous researchers for the data collection approach. The advantages of this technique include low cost and it can be understood easily. The researcher distributed 200 questionnaires among the participants of the study from which a total of 121 responses were obtained with complete information. The employees, linked management level and technical resources of the hospital received the questionnaires from the researcher to fill in the required information.

### **Sample Size**

The total number of participants involved in the study after the data collection process was 121. Out of 200 questionnaires distributed among the employees, linked management level and technical resources of the hospital, 121 were received with all the required information; therefore, the sample size finalised for the present research was 121. All the questionnaires which were incompletely filled were eliminated from the process.

### **Research Process**

The questionnaires were distributed among the participants of the study from which 121 were received. The participants were instructed about the filling process of the questionnaire. They were briefed by the researcher that the questionnaire is based on Likert scale approach and they are needed to fill the data according to their own perspective and experience being a part of the healthcare organization or the healthcare sector.

### **Ethical Consideration**

The participants involved in the present research were informed about the privacy and confidentiality of the data gathered from them. They were given an informed consent form at the time of data collection in order to assure them regarding the privacy of the data. They were assured that the data will not be leaked by any means and will only be considered to analyse the outcomes of the study.

### **Data Analysis**

The data gathered from the participants through the questionnaire based on Likert scale was then analysed through the Statistical Package of Social Sciences (SPSS) version 20.0. The responses of the participants as per the frequencies have been analysed graphically as well as in tabular form. In order to examine the influence of the independent variables on the dependent variables regression analysis has been applied on the data collected. Pearson Correlation matrix has also been obtained through SPSS, which have effectively evaluated the association between different factors of the study.

### **Conclusion**

Ultimately, this chapter has explained about the methodology and relevant approaches applied to conduct the survey and analysing the results of the study. The research is considered incomplete without its methodological approach and this section has effectively and efficiently presented all the measures taken in the survey. The analytical approach has also been applied which is briefed in detail in the existing section of the research. Statistical tests applied to conclude the results have also been mentioned in order to enhance the worth of the research and reliability of the outcomes. The statistical analysis applied in the study is effective enough to have valid and reliable outcomes. The data has been analysed quantitatively in order to have appropriate outcomes.

## CHAPTER IV: RESULTS

The results chapter has been considered as the most important part of the research as it has explored the main outcomes for the study. The research comprised of different statistical analysis in order to evaluate the results from the main data and information collected from the survey. The research instrument which was a survey questionnaire for the study has provided with essential information which was then analysed through applying various statistical tests. Reliability of the research instrument was evaluated through SPSS which can be observed from table 1 below. It has been found that the items of the questionnaire were valid and reliable to conduct the study because the Cronbach's Alpha value was observed 0.967, which is close to 1. Appropriate and effective results have been found through the reliability test. Moreover, this section has presented the demographic profile of the respondents on the basis of its frequencies. Descriptive statistics of the responses have been examined regarding Product quality, Business growth, Customers' satisfaction and customers' retention. Pearson correlation matrix has been presented between the variables Product Quality and Customer's Satisfaction. Similarly, Pearson correlation matrix has been presented between the factors of Business growth and Customer's Retention. This section has also presented the regression analysis's results based on the Independent variable "Product Quality" and dependent variable "Customers' Retention". It has further presented the Regression analysis on Independent variable "Product Quality" and dependent variable "Customers' Satisfaction".

### Reliability Test

**Table 1: Reliability Test for the Questionnaire**

<b>Case Processing Summary</b>			
		N	%
Cases	Valid	121	100.0
	Excluded <sup>a</sup>	0	.0
	Total	121	100.0

a. Listwise deletion based on all variables in the procedure.

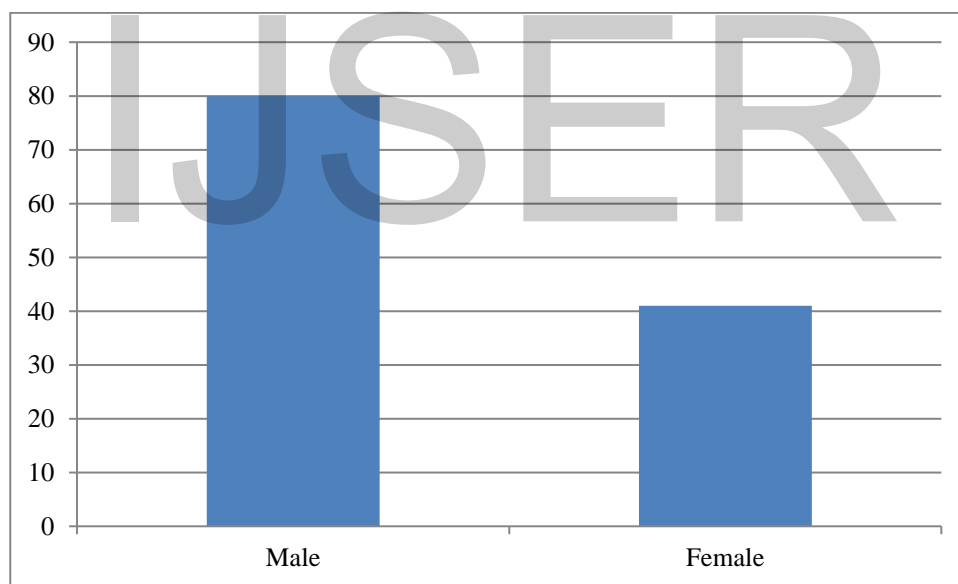
<b>Reliability Statistics</b>			
Cronbach's Alpha		N of Items	
		.967	25

Table 2 has presented that 80 males and 41 females were engaged in the study. The percentage of male participants has been observed greater than the percentage of female participants. The percentage for the male participants was 66.1% which was greater than the percentage of female participants which was 33.9%.

**Frequencies of the Responses of Participants**

**Table 2: Frequencies of the Gender**

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	80	66.1	66.1	66.1
	Female	41	33.9	33.9	100.0
	Total	121	100.0	100.0	

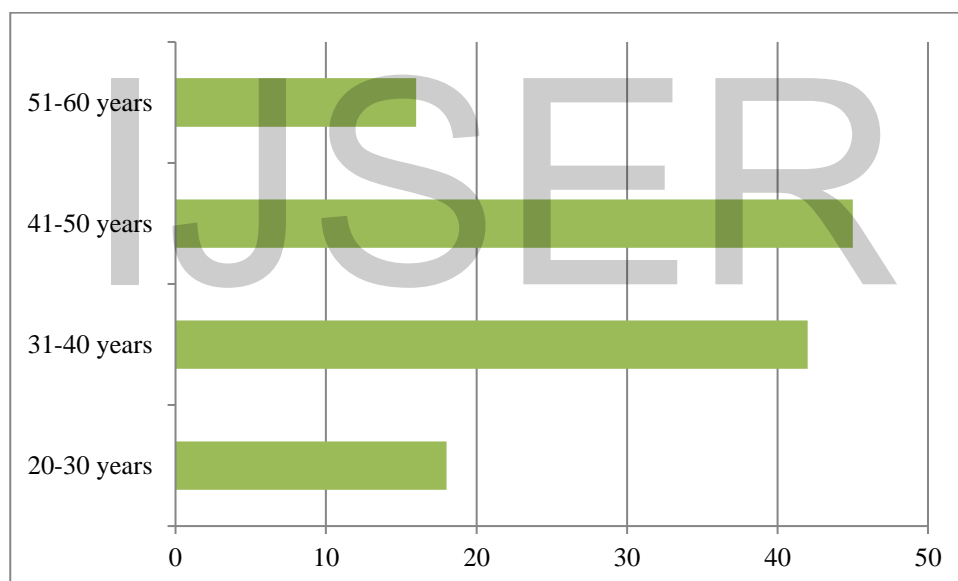


**Figure 3: Gender**

Table 3 has presented the percentages and frequencies of the age distribution of the participants which was also evaluated through SPSS. 14.9% respondents belonged to the 20-30 years of age group, 34.7% belonged to the 31-40 years of age group, 37.2 were observed belonging to the 41-50 years of age group. 51-60 years of the respondents were only 13.2%. It has been shown that the maximum number and percentage of participants involved in the research were from 41-50 years of age group.

**Table 3: Frequencies of the Age of the respondents**

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-30 years	18	14.9	14.9	14.9
	31-40 years	42	34.7	34.7	49.6
	41-50 years	45	37.2	37.2	86.8
	51-60 years	16	13.2	13.2	100.0
	Total	121	100.0	100.0	



**Figure 4: Age**

Table 4 has presented the educational level of the respondents involved in the survey. 23.1% of the respondents were under graduated, 54.5 were graduated and 22.3% were post graduated. Majority of the participants have been observed graduated because they showed the highest percentage in the results.

**Table 4: Frequencies of the level of Education**

		Educational Level			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate	28	23.1	23.1	23.1
	Graduate	66	54.5	54.5	77.7
	Post Graduate	27	22.3	22.3	100.0
	Total	121	100.0	100.0	

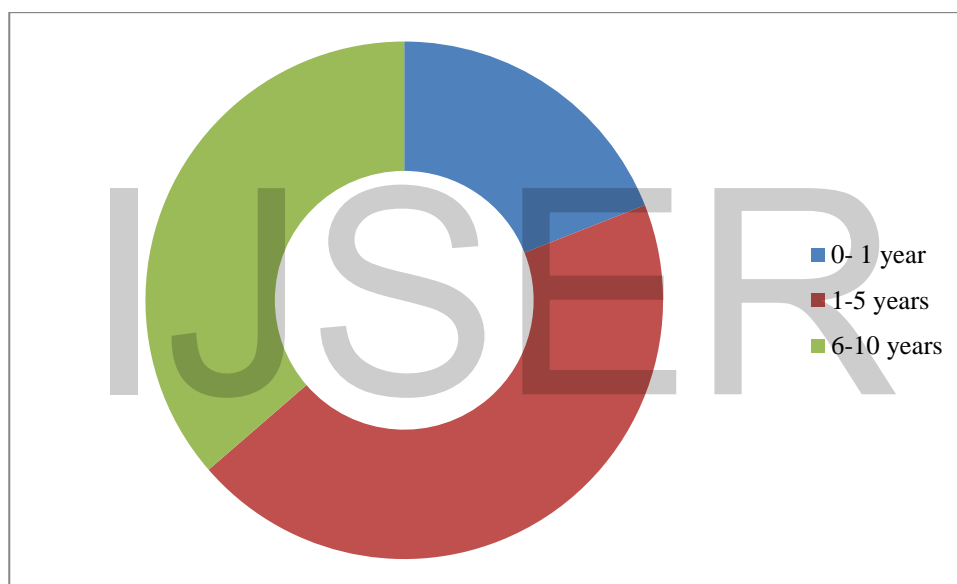


**Figure 5: Level of Education**

Table 5 has presented the outcomes regarding the professional experience of the participants. It has been observed that all the participants involved in the research were having suitable experience which has been observed effectual to conduct the study and rely on the analysis. Majority of the participants were having 1-5 years of experience (44.6%) which has been observed effective for study to gather data from the participants who are experienced enough for providing the responses.

**Table 5: Frequencies of the Professional Experience**

		Professional Experience			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0- 1 year	23	19.0	19.0	19.0
	1-5 years	54	44.6	44.6	63.6
	6-10 years	44	36.4	36.4	100.0
	Total	121	100.0	100.0	

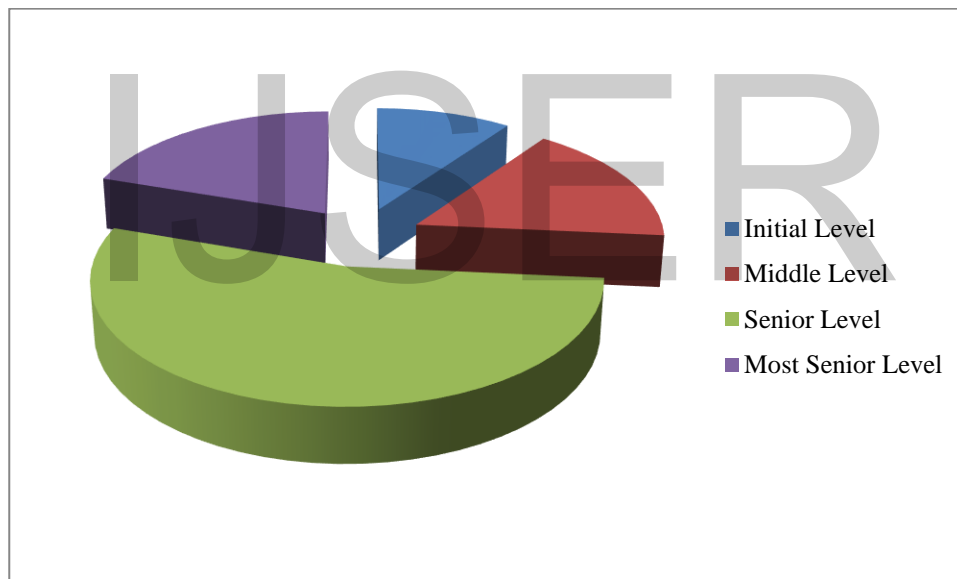


**Figure 6: Professional Experience**

Table 6 has shown the professional level of the employees. It has been observed that most of the participants were from senior level (53.7%). 19.8% participants were from most senior level. Senior and most senior level employees were involved in the study which has been proved effective for the analysis and outcomes of the study.

**Table 6: Frequencies of the Level of Profession**

Level of Profession		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Initial Level	12	9.9	9.9	9.9
	Middle Level	20	16.5	16.5	26.4
	Senior Level	65	53.7	53.7	80.2
	Most Senior Level	24	19.8	19.8	100.0
	Total	121	100.0	100.0	



**Figure 7: Level of Profession**



**Table 7: Percentages of the responses of the factors regarding Product Quality**

**Effective Sterilization process plays an important role in the healing process after the procedure.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	59	48.8	48.8	48.8
	Agree	29	24.0	24.0	72.7
	Neutral	25	20.7	20.7	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Proper sterilization can save the cost of antibiotics and postoperative complications**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	51	42.1	42.1	42.1
	Agree	37	30.6	30.6	72.7
	Neutral	25	20.7	20.7	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Substandard sterilization indicates low quality of service.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	50	41.3	41.3	41.3
	Agree	27	22.3	22.3	63.6
	Neutral	36	29.8	29.8	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Effective sterilization has great impact on customer satisfaction**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	70	57.9	57.9	57.9
	Agree	24	19.8	19.8	77.7
	Neutral	19	15.7	15.7	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**With effective sterilization process we can control the rate of infection**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	55	45.5	45.5	45.5
	Agree	18	14.9	14.9	60.3
	Neutral	39	32.2	32.2	92.6
	Disagree	8	6.6	6.6	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	121	100.0	100.0	

**Table 8: Percentages of the responses of the factors regarding Customer Satisfaction**

**Substandard sterilization process can damage the reputation of the Doctors / Surgeons  
and organization**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	40	33.1	33.1	33.1
	Agree	28	23.1	23.1	56.2
	Neutral	45	37.2	37.2	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Substandard sterilization breaks the confidence of the customers**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	61	50.4	50.4	50.4
	Agree	28	23.1	23.1	73.6
	Neutral	24	19.8	19.8	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Substandard sterilization process can harm the patient's life and can put the patient in discomfort and pain**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	68	56.2	56.2	56.2
	Agree	21	17.4	17.4	73.6
	Neutral	24	19.8	19.8	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Providing infection free tools and competent treatment is the basic right of the patients.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	58	47.9	47.9	47.9
	Agree	30	24.8	24.8	72.7
	Neutral	25	20.7	20.7	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**To gain customer loyalty an organization must continually meet customer expectations**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	71	58.7	58.7	58.7
	Agree	24	19.8	19.8	78.5
	Neutral	18	14.9	14.9	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Table 9: Percentages of the responses of the factors regarding Business growth**

**Satisfied customers become the reason of business growth.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	68	56.2	56.2	56.2
	Agree	33	27.3	27.3	83.5
	Neutral	12	9.9	9.9	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Attitude of staff has great impact on customer satisfaction.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	70	57.9	57.9	57.9
	Agree	21	17.4	17.4	75.2
	Neutral	26	21.5	21.5	96.7
	Disagree	4	3.3	3.3	100.0
	Total	121	100.0	100.0	

**Customer satisfaction is a main key of success.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	58	47.9	47.9	47.9
	Agree	30	24.8	24.8	72.7
	Neutral	25	20.7	20.7	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Customer satisfaction is a path to long term business profitability**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	75	62.0	62.0	62.0
	Agree	21	17.4	17.4	79.3
	Neutral	17	14.0	14.0	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Finding new customers and doing business with them takes time, effort, and money**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	64	52.9	52.9	52.9
	Agree	33	27.3	27.3	80.2
	Neutral	16	13.2	13.2	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Table 10: Percentages of the responses of the factors regarding Customer Retention**

<b>Customer retention is based on quality of service.</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	66	54.5	54.5	54.5
	Agree	30	24.8	24.8	79.3
	Neutral	17	14.0	14.0	93.4
	Disagree	5	4.1	4.1	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	
<b>Customer retention has great impact on business growth</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	47	38.8	38.8	38.8
	Agree	54	44.6	44.6	83.5
	Neutral	10	8.3	8.3	91.7
	Disagree	7	5.8	5.8	97.5
	Strongly Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	
<b>Safety is the basic need of everyone.</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	55	45.5	45.5	45.5
	Agree	36	29.8	29.8	75.2
	Neutral	27	22.3	22.3	97.5
	Disagree	3	2.5	2.5	100.0
	Total	121	100.0	100.0	

**Customer retention is strongly linked with customer satisfaction.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	67	55.4	55.4	55.4
	Agree	37	30.6	30.6	86.0
	Neutral	5	4.1	4.1	90.1
	Disagree	8	6.6	6.6	96.7
	Strongly Disagree	4	3.3	3.3	100.0
	Total	121	100.0	100.0	

**Lengthy stay in the hospital due to infection leads organization to a bitter end**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	64	52.9	52.9	52.9
	Agree	47	38.8	38.8	91.7
	Neutral	9	7.4	7.4	99.2
	Strongly Disagree	1	.8	.8	100.0
	Total	121	100.0	100.0	

**Descriptive Statistics**

Table 11 has presented the descriptive statistics of the responses regarding the effectiveness of product quality. The mean responses for all the items or factors of the variable “Product quality” have been observed between 1 to 2 responses, which showed that most of the responses were based on strongly agreed and agreed by the respondents. It has been observed that Effective Sterilization process plays an important role in the healing process after the procedure (Mean=1.88). Proper sterilization can save the cost of antibiotics and postoperative complications (Mean=1.94). Substandard sterilization indicates low quality of service (Mean=2.04). Effective sterilization has great impact on customer satisfaction (Mean=1.74). With effective sterilization process we can control the rate of infection (Mean=2.02).

**Table 11: Descriptive Statistics of the responses regarding “Product Quality”**

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Effective Sterilization process plays an important role in the healing process after the procedure.	121	1	5	1.88	1.037
Proper sterilization can save the cost of antibiotics and postoperative complications	121	1	5	1.94	1.011
Substandard sterilization indicates low quality of service.	121	1	5	2.04	1.052
Effective sterilization has great impact on customer satisfaction	121	1	5	1.74	1.031
With effective sterilization process we can control the rate of infection	121	1	5	2.02	1.060
Valid N (listwise)	121				



Table 12 has shown the descriptive statistics of the responses regarding business growth. Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization (Mean=2.20). Substandard sterilization breaks the confidence of the customers (Mean=1.85). Substandard sterilization process can harm the patient’s life and can put the patient in discomfort and pain (Mean=1.79). Providing infection free tools and competent treatment is the basic right of the patients (Mean=1.88). To gain customer loyalty an organization must continually meet customer expectations (Mean=1.72).

**Table 12: Descriptive Statistics of the responses regarding “Business Growth”**

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization	121	1	5	2.20	1.030
Substandard sterilization breaks the confidence of the customers	121	1	5	1.85	1.038
Substandard sterilization process can harm the patient’s life and can put the patient in discomfort and pain	121	1	5	1.79	1.056
Providing infection free tools and competent treatment is the basic right of the patients.	121	1	5	1.88	1.034
To gain customer loyalty an organization must continually meet customer expectations	121	1	5	1.72	1.027
Valid N (listwise)	121				

**Table 13: Descriptive Statistics of the responses regarding “Customers’ Satisfaction”**

Table 13 has presented the descriptive statistics of the responses of the items relevant to the satisfaction of the customers. Satisfied customers become the reason of business growth (Mean=1.69). Attitude of staff has great impact on customer satisfaction (Mean=1.70). Customer satisfaction is a main key of success (Mean=1.88). Customer satisfaction is a path to long term business profitability (Mean=1.68). Finding new customers and doing business with them takes time, effort, and money (Mean=1.76).

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
Satisfied customers become the reason of business growth.	121	1	5	1.69	.982
Attitude of staff has great impact on customer satisfaction.	121	1	4	1.70	.919
Customer satisfaction is a main key of success.	121	1	5	1.88	1.034
Customer satisfaction is a path to long term business profitability	121	1	5	1.68	1.026
Finding new customers and doing business with them takes time, effort, and money	121	1	5	1.76	1.000
Valid N (listwise)	121				

**Table 14: Descriptive Statistics of the responses regarding “Customers’ Retention”**

Table 14 has presented the descriptive statistics of the responses regarding the retention of the customers. It has been evaluated that Customer retention is based on quality of service (Mean=1.75). Customer retention has great impact on business growth (Mean=1.88) Safety is the basic need of everyone (Mean=1.82). Customer retention is strongly linked with customer satisfaction (Mean=1.72). Lengthy stay in the hospital due to infection leads organization to a bitter end (Mean=1.57).

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
Customer retention is based on quality of service.	121	1	5	1.75	1.011
Customer retention has great impact on business growth	121	1	5	1.88	.959
Safety is the basic need of everyone.	121	1	4	1.82	.866
Customer retention is strongly linked with customer satisfaction.	121	1	5	1.72	1.043
Lengthy stay in the hospital due to infection leads organization to a bitter end	121	1	5	1.57	.705
Valid N (listwise)	121				

### Pearson Correlation Matrix

Table 15 has presented the Pearson correlation analysis between the variables of the product qualities. The results are statistically significant and the association is strong where the Pearson correlation value is close to 1. It can be evidently observed that there is strong and positive association or correlation between the items of product quality and customer's satisfaction.

**Table 15: Pearson Correlation analysis between the factors Product Quality**

		Correlations				
		Factor 1.	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1.	Pearson	1	.875**	.753**	.756**	.586**
	Correlation					
	Sig. (2-tailed)		.000	.000	.000	.000
	N	121	121	121	121	121
Factor 2	Pearson	.875**	1	.708**	.809**	.600**
	Correlation					
	Sig. (2-tailed)	.000		.000	.000	.000
	N	121	121	121	121	121
Factor 3.	Pearson	.753**	.708**	1	.648**	.739**
	Correlation					
	Sig. (2-tailed)	.000	.000		.000	.000
	N	121	121	121	121	121
Factor 4	Pearson	.756**	.809**	.648**	1	.471**
	Correlation					
	Sig. (2-tailed)	.000	.000	.000		.000
	N	121	121	121	121	121
Factor 5	Pearson	.586**	.600**	.739**	.471**	1
	Correlation					
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	121	121	121	121	121

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

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Factor 1: Effective Sterilization process plays an important role in the healing process after the procedure.

Factor 2: Proper sterilization can save the cost of antibiotics and postoperative complications.

Factor 3: Substandard sterilization indicates low quality of service.

Factor 4: Effective sterilization has great impact on customer satisfaction.

Factor 5: Effective Sterilization process plays an important role in the healing process after the procedure.

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Proper sterilization can save the cost of antibiotics and postoperative complications. Substandard sterilization indicates low quality of service. Effective sterilization has great impact on customer satisfaction. With effective sterilization process we can control the rate of infection. Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization. Substandard sterilization breaks the confidence of the customers. Substandard sterilization process can harm the patient's life and can put the patient in discomfort and pain. Providing infection free tools and competent treatment is the basic right of the patients. To gain customer loyalty an organization must continually meet customer expectations. These outcomes have been found statistically significant because the Pearson Correlation values observed in the analysis have strong and positive association. Pearson Correlation matrix has also presented the p-values that have also been found significant. The p-values that are less than the level of significance ( $\alpha=0.05$ ) were observed significant. It has been evaluated that all the p-values were observed less than the level of significance showing strong and positive association among the factors of product quality and customer's satisfaction.

Table 16 has presented the outcomes of the association between the factors of customer's satisfaction. The results are statistically significant and the association is strong where the Pearson correlation value is close to 1. It can be evidently observed that there is strong and positive association or correlation between the items of customer's satisfaction. Satisfied customers become the reason of business growth. Attitude of staff has great impact on customer satisfaction. Customer satisfaction is a main key of success. Customer satisfaction is a path to long term business profitability. Finding new customers and doing business with them takes time, effort, and money.

**Table 16: Pearson Correlation analysis between the factors of Customer's Satisfaction**

		Correlations				
		Factor 1.	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1.	Pearson	1	.745**	.689**	.702**	.684**
	Correlation					
	Sig. (2-tailed)		.000	.000	.000	.000
	N	121	121	121	121	121
Factor 2	Pearson	.745**	1	.717**	.814**	.727**
	Correlation					
	Sig. (2-tailed)	.000		.000	.000	.000
	N	121	121	121	121	121
Factor 3.	Pearson	.689**	.717**	1	.787**	.822**
	Correlation					
	Sig. (2-tailed)	.000	.000		.000	.000
	N	121	121	121	121	121
Factor 4	Pearson	.702**	.814**	.787**	1	.762**
	Correlation					
	Sig. (2-tailed)	.000	.000	.000		.000
	N	121	121	121	121	121
Factor 5	Pearson	.684**	.727**	.822**	.762**	1
	Correlation					
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	121	121	121	121	121

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

Factor 1: Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization.

Factor 2: Substandard sterilization breaks the confidence of the customers.

Factor 3: Substandard sterilization process can harm the patient's life and can put the patient in discomfort and pain.

Factor 4: Providing of infection free tools and competent treatment is the basic right of the patients.

Factor 5: To gain customer loyalty an organization must continually meet customer expectations.

Table 17 has presented the correlation between the variables of business growth. It has been observed that factors have strong and positive association between them. Satisfied customers become the reason of business growth. Attitude of staff has great impact on customer satisfaction. Customer satisfaction is a main key of success. Customer satisfaction is a path to long term business profitability. Finding new customers and doing business with them takes time, effort, and money.

**Table 17:** Pearson Correlation analysis between the factors of Business Growth

		Correlations				
		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1.	Pearson Correlation	1	-.065	.712**	.844**	.731**
	Sig. (2-tailed)		.480	.000	.000	.000
	N	121	121	121	121	121
Factor 2	Pearson Correlation	-.065	1	.086	-.041	.167
	Sig. (2-tailed)	.480		.347	.658	.068
	N	121	121	121	121	121
Factor 3.	Pearson Correlation	.712**	.086	1	.828**	.746**
	Sig. (2-tailed)	.000	.347		.000	.000
	N	121	121	121	121	121
Factor 4	Pearson Correlation	.844**	-.041	.828**	1	.647**

	Sig. (2-tailed)	.000	.658	.000	.000	.000
	N	121	121	121	121	121
Factor 5	Pearson Correlation	.731**	.167	.746**	.647**	1
	Sig. (2-tailed)	.000	.068	.000	.000	
	N	121	121	121	121	121

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

Factor 1: Satisfied customers become the reason of business growth.

Factor 2: Attitude of staff has great impact on customer satisfaction.

Factor 3: Customer satisfaction is a main key of success.

Factor 4: Customer satisfaction is a path to long term business profitability.

Factor 5: Finding new customers and doing business with them takes time, effort, and money.

Table 18 has presented that the customer retention is based on quality of service. Customer retention has great impact on business growth. Safety is the basic need of everyone. Customer retention is strongly linked with customer satisfaction. Lengthy stay in the hospital due to infection leads organization to a bitter end. The level of significance value has been considered 0.05, which is 95% confidence interval. The p-values that are less than the level of significance are considered as the statistically significant results; whereas, the values that are greater than the level of significance shows insignificant outcomes and association between the factors.

**Table 18:** Pearson Correlation analysis between the factors of Customer’s retention

		Correlations				
		Factor 1.	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1.	Pearson Correlation	1	.529**	.357**	.677**	.434**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	121	121	121	121	121
Factor 2	Pearson Correlation	.529**	1	.205*	.576**	.505**



	Sig. (2-tailed)	.000		.024	.000	.000
	N	121	121	121	121	121
Factor 3.	Pearson Correlation	.357**	.205*	1	.183*	.403**
	Sig. (2-tailed)	.000	.024		.045	.000
	N	121	121	121	121	121
Factor 4	Pearson Correlation	.677**	.576**	.183*	1	.413**
	Sig. (2-tailed)	.000	.000	.045		.000
	N	121	121	121	121	121
Factor 5	Pearson Correlation	.434**	.505**	.403**	.413**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	121	121	121	121	121

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

\* . Correlation is significant at the 0.05 level (2-tailed).

Factor 1: Customer retention is based on quality of service.

Factor 2: Customer retention has great impact on business growth

Factor 3: Safety is the basic need of everyone.

Factor 4: Customer retention is strongly linked with customer satisfaction.

Factor 5: Lengthy stay in the hospital due to infection leads organization to a bitter end.

### Regression Analysis

Table 19 has shown the regression analysis on the data gathered from the participants of the study. The factors of product quality have been taken as independent variable against the dependent variable “Customer retention”. Effective sterilization has great impact on customer satisfaction, which can be considered as an essential and important aspect of the product quality. ANOVA and regression summary have been presented in the table 19. Some items were taken from the customer’s retention as the independent variables which include Lengthy stay in the hospital due to infection leads organization to a bitter end, Safety is the basic need of everyone. Customer retention is strongly linked with customer satisfaction. Customer retention has great impact on business growth, Customer retention is based on quality of service.

Predictors: (Constant), Lengthy stay in the hospital due to infection leads organization to a bitter end, Safety is the basic need of everyone., Customer retention is strongly linked with customer satisfaction., Customer retention has great impact on business growth , Customer retention is based on quality of service.

**Table 19: Regression analysis on Independent variable “Product Quality” and dependent variable “Customers’ Retention”**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.856 <sup>a</sup>	.733	.721	.544		
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.487	5	18.697	63.147	.000 <sup>b</sup>
	Residual	34.050	115	.296		
	Total	127.537	120			

a. Dependent Variable: Effective sterilization has great impact on customer satisfaction

### Coefficients<sup>a</sup>

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-.279	.147		-1.896	.061
	Factor 1	.238	.072	.234	3.303	.001
	Factor 2	.566	.069	.527	8.220	.000
	Factor 3	-.014	.065	-.012	-.221	.825
	Factor 4	.120	.070	.122	1.726	.087
	Factor 5	.222	.089	.152	2.505	.014

a. Dependent Variable: Effective sterilization has great impact on customer satisfaction

Factor 1: Customer retention is based on quality of service.

Factor 2: Customer retention has great impact on business growth

Factor 3: Safety is the basic need of everyone.

Factor 4: Customer retention is strongly linked with customer satisfaction.

Factor 5: Lengthy stay in the hospital due to infection leads organization to a bitter end.

The level of significance considered for the study was 0.05. It has been assumed that the value of significance (p-values) that are less than the level of significance have statistically significant impact on the dependent variable. From the results, it has been evaluated that Customer retention is based on quality of service because the p-value observed for this variable was less than the level of significance ( $0.001 < 0.05$ ). Similarly, Customer retention has great impact on business growth ( $0.00 < 0.05$ ). Lengthy stay in the hospital due to infection leads organization to a bitter end ( $0.014 < 0.05$ ). The outcomes have explored that Customer retention has great impact on business growth and the Customer retention is based on quality of service.

Table 20 has presented the regression analysis by considering factor of the product quality as the independent variable and factors of customers' satisfaction as dependent variables. The regression analysis has presented the p-values through which the outcomes have been effectively generated. The regression analysis is essential to understand the impact of independent variables on the dependent variables. It has been assumed that the value of significance (p-values) that are less than the level of significance have statistically significant impact on the dependent variable.

The results have analyzed that satisfied customers become the reason of business growth because the p-value observed for this factor of the business satisfaction is less than the level of significance. Customer satisfaction is a main key of success ( $0.00 < 0.05$ ). Customer satisfaction is a path to long term business profitability ( $0.00 < 0.05$ ). Finding new customers and doing business with them takes time, effort, and money ( $0.00 < 0.05$ ).

The outcomes have explored that customers' satisfaction is highly dependent upon the product quality. The results have presented the main factors that are essential and have positive and significant impact on the customer's satisfaction. Predictors: (Constant), Finding new customers and doing business with them takes time, effort, and money, Attitude of staff has great impact on customer satisfaction., Customer satisfaction is a path to long term business profitability, Customer satisfaction is a main key of success., Satisfied customers become the reason of business growth.

**Table 20:** Regression analysis on Independent variable "Product Quality" and dependent variable "Customers' Satisfaction"

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.933 <sup>a</sup>	.870	.864	.372		
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	106.644	5	21.329	153.771	.000 <sup>b</sup>
	Residual	15.951	115	.139		

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Total		122.595	120			
a. Dependent Variable: Proper sterilization can save the cost of antibiotics and postoperative complications						
<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	.065	.097		.667	.506
	Factor 1	-.210	.076	-.204	-2.776	.006
	Factor 2	.077	.039	.070	1.963	.052
	Factor 3	.298	.069	.305	4.298	.000
	Factor 4	.423	.081	.429	5.221	.000
	Factor 5	.472	.061	.467	7.770	.000

a. Dependent Variable: Proper sterilization can save the cost of antibiotics and postoperative complications

Factor 1: Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization.

Factor 2: Substandard sterilization breaks the confidence of the customers.

Factor 3: Substandard sterilization process can harm the patient's life and can put the patient in discomfort and pain.

Factor 4: Providing of infection free tools and competent treatment is the basic right of the patients.

Factor 5: To gain customer loyalty an organization must continually meet customer expectations.

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Table 21 has presented the regression analysis on the dependent variable business growth. The analysis has intended to understand the impact of product quality of the business growth. It has been predicted from the above analysis that product quality is an essential way to gain the retention and satisfaction of the customers, which can eventually be the reason of business growth. Similar to the analysis done previously, the present regression analysis showed the significance of independent variables on the dependent variable. Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization ( $0.00 < 0.05$ ). Providing infection free tools and competent treatment is the basic right of the patients ( $0.00 < 0.05$ ). Substandard sterilization breaks the confidence of the customers ( $0.13 < 0.05$ ). Predictors: (Constant), To gain customer loyalty an organization must continually meet customer expectations, Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization, Providing infection free tools and competent treatment is the basic right of the patients., Substandard sterilization breaks the confidence of the customers, Substandard sterilization process can harm the patient's life and can put the patient in discomfort and pain

**Table 21:** Regression analysis on Independent variable “Product Quality” and dependent variable “Business Growth”

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.686 <sup>a</sup>	.471	.448	.639		
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.768	5	8.354	20.472	.000 <sup>b</sup>
	Residual	46.926	115	.408		
	Total	88.694	120			

a. Dependent Variable: Level of Profession

Coefficients <sup>a</sup>				
Model	Unstandardized	Standardized	t	Sig.

		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	1.747	.140		12.484	.000
	Factor 1	.566	.091	.678	6.205	.000
	Factor 2	.273	.108	.330	2.526	.013
	Factor 3	.100	.109	.123	.920	.360
	Factor 4	-.436	.114	-.525	-3.819	.000
	Factor 5	-.012	.109	-.015	-.112	.911

a. Dependent Variable: Level of Profession

Factor 1: Satisfied customers become the reason of business growth.

Factor 2: Attitude of staff has great impact on customer satisfaction.

Factor 3: Customer satisfaction is a main key of success.

Factor 4: Customer satisfaction is a path to long term business profitability.

Factor 5: Finding new customers and doing business with them takes time, effort, and money.

## Conclusion

Effective Sterilization process plays an important role in the healing process after the procedure. Proper sterilization can save the cost of antibiotics and postoperative complications. Substandard sterilization indicates low quality of service. Effective sterilization has great impact on customer satisfaction. With effective sterilization process we can control the rate of infection. Substandard sterilization process can damage the reputation of the Doctors / Surgeons and organization. Substandard sterilization breaks the confidence of the customers. Substandard sterilization process can harm the patient's life and can put the patient in discomfort and pain. Providing infection free tools and competent treatment is the basic right of the patients. To gain customer loyalty an organization must continually meet customer expectations.

Satisfied customers become the reason of business growth. Attitude of staff has great impact on customer satisfaction. Customer satisfaction is a main key of success. Customer satisfaction is a path to long term business profitability. Finding new customers and doing business with them takes time, effort, and money. Customer retention is based on quality of service. Customer retention has great impact on business growth. Safety is the basic need of everyone. Customer retention is strongly linked with customer satisfaction. Lengthy stay in the hospital due to infection leads organization to a bitter end.

## CHAPTER V: DISCUSSION

Customers are always recognized as the backbone for any business entity, which usually work for the benefit of general public. From such perspective, healthcare sector is always identified as a major service providing firm, which is always dependent upon the customers' commitment and their satisfaction. Therefore, it is said that the customer satisfaction plays a major role in the professional settings to enhance the regulation of organizational processes in an effective way. However, there are two other major variables, which are associated with the development of customers' commitment. Trust has been identified as a viable factor, which is closely connected with the customers' commitment within any industry. A study has been carried out by Bowden, Dagger and Elliott (2015), which has indicated that the enhanced level of trust and loyalty is directly associated with the better commitment and satisfaction of the customers along with loyalty. It is also a fact that the customer satisfaction along with the better commitment level is beneficial for the healthcare sector to improvise and groom their regulative processes through advanced measures. Moreover, it is also necessary to be understood that there is a clear differentiation between the satisfaction and commitment. In accordance with the constructs; customer satisfaction and customers' commitment are two different aspects. As suggested by Gustafsson, Johnson and Roos (2005), customers' commitment is a major variable of customer satisfaction. The study further indicated that customers' commitment can be easily converted into increased level of satisfaction. Similarly, Morgan and Hunt (1994) have shown that the commitment is directly associated with the trust factor; therefore, it is generally indicated that commitment and involvement are different aspects in regards of customers' attributes. At the same time, trust and loyalty are two different perspectives, which are considered in collaboration to develop the commitment of customers. In accordance with Oliver, Rust and Varki, (1997), it is said that trust and loyalty are two different foundations, which are helpful for the development of commitment and satisfaction. Thus, it can be said that the customers' commitment level has a direct association with trust and loyalty. Similarly, the process of effective sterilization has occupied an imperative place in the healing techniques after the surgeries or operations. Cost can be effectively saved through the effective sterilization process and antibiotics can be avoided after the surgeries. Postoperative complications are at lesser risk when appropriate sterilization processes are applied after surgeries which eventually enhance the satisfaction of the customers.



The sterilization factors usually play a vital role in the retail healthcare industry for increasing the customer commitment towards the hospital services. The results and consequences in form of statistic have confirmed that there exist multiple factors that contribute to the customer commitment significantly. The outcomes have identified that effective sterilization processes are directly associated with better trust and loyalty of the customers. A study has positively supported with its outcomes that high quality services improves the customer loyalty ultimately boosting the customer commitment towards the offered service or brand (Ogba, & Tan, 2009).

Dimitriades (2006) has indicated that the customers' loyalty should always be preferred by the healthcare organizations, which is directly associated with the better patient based service quality. At the same time, the study has also indicated that the customer commitment along with trust and delight should be preferred for better regulation of the processes. The SEM Model clearly mentioned that service quality should be improvised in the professional settings in order to increase the customers' commitment, trust, and delight effectively. The findings have suggested that such factors should be fulfilled by the healthcare industry in order to increase the trust and loyalty level of the customers. Moreover, increased level of trust is also associated with the better commitment of the customers with the healthcare sector. Moreover, the study also mentioned that effective Sterilization process plays an important role in the healing process after the procedure so they should be prioritized to assure the better interaction with the customers for increasing their trust level appropriately. Thus, the study has mainly supported the outcomes of current research that is relatively associated with the role of sterilization process in regards of better customers' commitment with the healthcare sector. A positive relationship has also been identified between delight level and customers' trust level. Therefore, it has been evaluated that the healthcare sector must focus on such factors to increase the success level in an effective way. Gustafsson, et al. (2005) has indicated that the increased customer loyalty is directly associated with the better trust and delight of the customers, which in turns result in the better commitment with the organization. The study has further mentioned that increased commitment of customers has a major impact on the attainment of goals and objectives in regards of the hospital settings.

It has been concluded that effective sterilization factors play a major role in the better commitment level of customers within the healthcare industry. It has been investigated on the

implication that a considerable role has been played by proper sterilization factors within the hospital settings for the patients as; it motivates the customers to tie strong knots and long term relationship with the hospital eventually resulting in commitment and loyalty of the patients. It is a fact that the enhanced level of sterilization with the responsiveness will be helpful for the healthcare sector to improvise the commitment level of customers' effectively. A trust level can be easily developed in accordance with the policies and standards of healthcare industry through better management-customer relationship. Moreover, the government should focus on certain approaches, which would ultimately result in the increased extent of customers' commitment with the healthcare services. Some of the key approaches for the government can be the development of retail banking industry through better financial stabilization. It is a fact that the sector of healthcare has a direct relevance with the customers; therefore, government aid will be helpful for the management of this sector to assure the progress effectively. The management should develop training centers for their employees along with the arrangement of educational and training sessions accordingly. Better training of the employees will be helpful for improvising the skills and capabilities of employees for satisfying the patients. The process of effective sterilization has occupied an imperative place in the healing techniques after the surgeries or operations. Cost can be effectively saved through the effective sterilization process and antibiotics can be avoided after the surgeries. Postoperative complications are at lesser risk when appropriate sterilization processes are applied after surgeries which eventually enhance the satisfaction of the customers.

The organization developing strong customer relationships usually acquire higher customer retention, increased profits, and willingness for recommending. It is important that organizations, who seek for customer commitment should work on obtaining customer satisfaction and trust as, these two are considered as an important determinant of brand equity. Brand equity can be considered as one of the lasting intention for developing and maintaining the long term customer and brand relationship (Nyadzay & Khajehzadeh, 2016).

The important impact of customer commitment also assists in identifying the loyalty of customer towards a brand that is caused due to the effects of brand image. Relatedly, a study was conducted that identified that brand image positively impacts the customer loyalty as well as the customer commitment. It has been indicated that the customer commitment usually boost due to the positive brand image within the minds of customers (Nyadzayo & Khajehzadeh, 2016).

In the healthcare sector, customer commitment can be deemed as commitment with the service quality of the hospitals, which entails products, brand associations, brand reputation, and brand image. There are several studies that have stated that brand equity is a strongest feature to predict the loyalty towards an organization or its products (Bilgihan, 2016). The behavior of customer commitment and loyalty towards the brand is critically required, particularly in the healthcare sector (El-Manstrly & Harrison, 2013).

The marketers of healthcare sector experience many challenges globally because of the role healthcare sector play in contributing to the public welfare. Hospital marketing is challenging and it particularly depends on the customer relationship management. A study conducted by Kim et al. (2008) identified several factors that impact the development of brand equity through the promotion of effectual customer association including customer's satisfaction, trust, brand awareness, brand loyalty and commitment. An in depth analysis of these factors reported that hospitals can be effective in developing image and influential brand equity if they can manage and develop their customer association well. The importance of brand equity is concerned with various dimensions of the marketing relationship that are required within the healthcare sector. For attaining success in the corporate sector, a hospital must focus on the long term relationship activities (Armstrong et al., 2014).

The findings of the study by Lonial & Raju (2015) have supported the concept that customer commitment should be identified as a dependent factor, which has a direct impact on the customers' satisfaction rate. Therefore, the study has mainly concluded that the customer satisfaction plays a major role in the development of any healthcare sector successfully. E-service quality concept is vital for the healthcare industry to improvise the conceptualization of automated services. There are significant number of theories and models, which have been developed accordingly to improvise the regulation of healthcare procedures and processes in an effective way. But, there is lack of researches based on the role of technology-based services in establishing brand equity within the private hospitals sector. It is a fact that the healthcare is directly associated with the regulation of financial processes along with the economic factors. Therefore, it is necessary to assure the enhanced customer involvement in an effective way.

The identification of the association between the service quality and brand equity can be recognized in the existing literature. Few studies have investigated this association within conventional context, where face to face is the only method of interaction between the customer

and service organization. No studies have explored this association within automated healthcare context. Developing an association with the customers can be gained through the combination of media. In the existing literature, the influence of online healthcare service on the perception of customers regarding brand equity has not been identified. Therefore, the present study has proposed a model taking in to account a unique and distinct attributes of the delivery channel that has potential to impact the brand equity.

Economic liberalization has affected the healthcare industry across the globe in terms of positive attributes, which has developed enormous aspects within healthcare sector. Healthcare has been identified as a major aspect, which was developed in the early 90s, where the customers are only entertained through better services. For such purposes, a study has mentioned that customer based services must be developed in accordance with the market exposure to enhance the effectiveness of organizational processes. At the same time, customers based services must be delivered with pure quality, which will be significant for the development of client or customer based progress. A study has been carried out by, which has mentioned that the higher level of trust will be significant for the organization to enhance and improvise the processes in an effective way. Moreover, the study has also focused on the better level of trust in regards of the customers within healthcare industry. From the comprehensive range of outcomes, it has been evaluated that the customers' trust is directly associated with the better loyalty of the customers with the organization. A healthcare industry is completely dependent upon the customers; health status and their feedbacks after being treated. Therefore, enhanced loyalty of the customers will be directly associated with the better commitment of customers' with the organization or hospitals. From this perspective, the study has indicated that the customers' commitment is significantly necessary for the healthcare industry to improvise their working prospectus through efficient strategies. At the same time, satisfied and committed customers will also provide the healthcare industry a competitive edge across the territories within the market. Thus, it can be said that the healthcare industry must focus on the customers' trust level for their better commitment.

There are a significant number of aspects, which are directly associated with the regulation of normal healthcare processes. In regards of such aspects, the development of online portals for the smooth functioning of certain tasks plays a major role in the development of patients' commitment with the healthcare industry in an effective way. Thus, it is said that the

online factors must be fulfilled by the healthcare sector to improvise the relationship between the hospitals and the patients. Online healthcare is expected to flourish patients through diversified range of benefits through appropriate level of service delivery. Some of the core features, which are always fulfilled in the online healthcare perspective, mainly include security, personalization or customization, and convenience. A study has been conducted by Burgess & Currie (2013) which has mentioned that security plays a vital role in the better trust level of customer in regards of the online healthcare. The healthcare sector must focus on the patients' trust level through providing idealistic and secure online portals for the regulation of normal processes. Similarly, better convenience along with the personalization or customization will be helpful for the patients to enhance their delight level in an effective way. The study has also stated that the online factors must be regulated properly by the professional individuals effectively in order to improvise the commitment level properly. At the same time, the online factors are also helpful for the patients to be committed with the healthcare industry to increase the level of satisfaction. Therefore, it can be said that the better commitment of the patients is highly dependent upon the online factors within the healthcare sector.

The customers' loyalty should always be preferred by the organizations, which is directly associated with the better hospital based service quality. At the same time, the study has also indicated that the service quality along with trust should be preferred for better regulation of the online processes. The outcomes clearly mentioned that hospital based service quality should be improvised in the professional settings to increase the customers' commitment and trust effectively. The findings have suggested that such factors should be fulfilled by the healthcare industry to increase the trust level of customers. Moreover, increased level of trust can also be associated with the better commitment of the customers with the online healthcare services. Moreover, the study also mentioned that online factors should be prioritized to assure the better interaction with the customers for increasing their trust level appropriately. Thus, the study has mainly supported the hospital settings, which are relatively associated with the role of online factors in regards of better customers' commitment with the healthcare sector. Safety is the basic need of everyone. Customer retention is strongly linked with customer satisfaction. Lengthy stay in the hospital due to infection leads organization to a bitter end.

## CHAPTER VI: CONCLUSION

The present study has contributed to the current theoretical and conceptual models along with the investigative knowledge about the role of effective sterilization process within healthcare industry. It has further developed a comprehensive model about the factors in regards of the hospital services including the customers' satisfaction, loyalty and business growth. The model has specifically focused on the core aspects, which are necessary for the development of trust and of customers within healthcare sector. Thus, the study effectively contributed for the development standards within healthcare industry. The theoretical background of this study is significantly helpful for the healthcare sector to increase the responsiveness of the customers. The healthcare industry can easily get appropriate level of help through this study to improvise their processes and regulative factors. Goal attainment process of the hospitals can be also improvised through the findings of this study.

It has been concluded that an effective sterilization process has a strong impact on brand equity, which can play a major role in the better commitment level of customers within the healthcare industry. It has been investigated on the implication of effective strategies within hospital settings could play a considerable within the healthcare industry as; it motivates the customers to tie strong knots and long term relationship with the hospitals eventually resulting in trust on service quality. It is a fact that the enhanced level of security along with the responsiveness will be helpful for the healthcare sector to improvise the commitment level of customers' effectively. A trust level can be easily developed in accordance with the policies and standards of healthcare industry through better relationship. Some of the key approaches for the government can be the development of healthcare industry through better financial stabilization. It is a fact that the healthcare industry has a direct relevance with the customers; therefore, government aid will be helpful for the management of healthcare to assure the progress effectively. The management of healthcare should develop training centers for the hospital management staff along with the arrangement of educational and training sessions accordingly. Better training of the technological advancements will be helpful for improvising the skills and capabilities of hospital management.

## Limitations

Limited sample size can be identified as a major limitation for this study, which would result in the affected nature of outcomes. Therefore, future research studies can be carried out through better or increased sample size. At the same time, limited resources have also affected the regulation of findings. Therefore, future studies on the basis of enhanced resources can also focused on certain other mediating variables to identify the core aspects related to role of effective sterilization process within hospitals.

Following limitations may also be observed during the research procedure and methodology adopted:

1. Data will be collected only from the authorities like higher management people, who directly or indirectly involved associated with the subject.
2. Researcher may not have access to all levels of authorities, who involved in higher management and the related activities. The accessed higher management people, may do not have the much time to respond to the researcher.
3. Inadequate time of the researcher may be abound to complete the research within a specific time, on the other hand, the higher management people may meet to a limited time.
4. Limited knowledge of the people may also be a barrier for the researcher.
5. Data will be collected by the researcher itself.
6. Respondent may not be able to respond properly because of their tight schedule.
7. Personal observations of the respondents may create biasness in the study.
8. Diversity of age, experience and hierarchy of management may have their own effects on the study.
9. Researcher may ask those questions which will not be considered as interference in the professional privacy of the patients and their attendants.

## Recommendations

The study has recommended some steps to be adopted by the healthcare sector through which it can attain the better outcome of customers' satisfaction and business growth:

- Processes must be defined regarding the system and events for the appropriate sterilization in order to gain the satisfaction of the customers.
- Training, skills and developmental opportunities must be promoted for attaining the customers' satisfaction and augments the business.
- Knowledge of quality services and associated training must be focused and strategies should be implicated that enhances the business
- Rewards and response structures must be revised in the healthcare sector that can enhance the service qualities offered by the hospital staff to the patients
- Novel approaches must be adopted in order to promote the adoption of appropriate sterilization process within the healthcare sector.
- Organization must establish a comprehensive policy to publish annual infection rate to aware public about quality of service.
- Government should made it compulsory for all healthcare organizations which offers surgical procedures to have properly equipped Sterilization Units with trained and certified staff.
- Government should make law if any infection happens related to surgical side infection the organization should be responsible for all expense.



## REFERENCES

- Abdelfattah, F. A., Rahman, M. S., & Osman, M. (2015). Assessing the antecedents of customer loyalty on healthcare insurance products: Service quality; perceived value embedded model. *Journal of Industrial Engineering and Management*, 8(5), 1639.
- Ahmed, S., Ahmed, S., Tarique, K. M., Tarique, K. M., Arif, I., & Arif, I. (2017). Service quality, patient satisfaction and loyalty in the Bangladesh healthcare sector. *International Journal of Health Care Quality Assurance*, 30(5), 477-488.
- Aiken, L. H., Clarke, S. P., Sloane, D. M., & International Hospital Outcomes Research Consortium. (2002). Hospital staffing, organization, and quality of care: cross-national findings. *International Journal for quality in Health care*, 14(1), 5-14.
- Andersson, P., & Karlström, K. (2014). Factors influencing a customer's loyalty in B2B relationships: A qualitative study of relationship marketing.
- Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice*. Kogan Page Publishers.
- Astuti, H. J., & Nagase, K. (2014). Patient loyalty to healthcare organizations: Relationship marketing and satisfaction.
- Berkowitz, E. N. (2016). *Essentials of health care marketing*. Jones & Bartlett Publishers.
- Bilgihan, A. (2016). Gen Y customer loyalty in online shopping: An integrated model of trust, user experience and branding. *Computers in Human Behavior*, 61, 103-113.
- Bowden, J., Dagger, T., & Elliott, G. (2015). Earning Customer Loyalty: The Role of Satisfaction, Trust, Delight, Commitment and Involvement. In *Marketing in Transition: Scarcity, Globalism, & Sustainability* (pp. 362-362). Springer, Cham.
- Bright, L. F., Kleiser, S. B., & Grau, S. L. (2015). Too much Facebook? An exploratory examination of social media fatigue. *Computers in Human Behavior*, 44, 148-155.
- Brooks, G., Heffner, A., & Henderson, D. (2014). A SWOT analysis of competitive knowledge from social media for a small start-up business. *The Review of Business Information Systems (Online)*, 18(1), 23.
- Burgess, N., & Currie, G. (2013). The knowledge brokering role of the hybrid middle level manager: the case of healthcare. *British Journal of Management*, 24(S1).

- Canetti, G., Froman, S., Grosset, J. A., Hauduroy, P., Langerova, M., Mahler, H. T., ... & Šula, L. (1963). Mycobacteria: laboratory methods for testing drug sensitivity and resistance. *Bulletin of the World Health Organization*, 29(5), 565.
- Castells, M. (2015). *Networks of outrage and hope: Social movements in the Internet age*. John Wiley & Sons.
- Del Brío, J. Á., Fernández, E., & Junquera, B. (2007). Customer interaction in environmental innovation: the case of cloth diaper laundering. *Service Business*, 1(2), 141-158.
- Dimitriades, Z. S. (2006). Customer satisfaction, loyalty and commitment in service organizations: Some evidence from Greece. *Management Research News*, 29(12), 782-800.
- El-Manstrly, D., & Harrison, T. (2013). A critical examination of service loyalty measures. *Journal of Marketing Management*, 29(15-16), 1834-1861.
- Garner, J. S., & Favero, M. S. (1986). Guideline for handwashing and hospital environmental control, 1985 supersedes guideline for hospital environmental control published in 1981. *American journal of infection control*, 14(3), 110-126.
- Gee, D. (2017). PREVENTION AND CONTROL OF INFECTION. *The Handbook for Nurse Associates and Assistant Practitioners*, 124.
- Gee, J. (2015). *Social linguistics and literacies: Ideology in discourses*. Routledge.
- Groves, P., Kayyali, B., Knott, D., & Kuiken, S. V. (2016). The 'big data' revolution in healthcare: Accelerating value and innovation.
- Gustafsson, A., Johnson, M. D., & Roos, I. (2005). The effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention. *Journal of marketing*, 69(4), 210-218.
- Han, H., & Hyun, S. S. (2015). Customer retention in the medical tourism industry: Impact of quality, satisfaction, trust, and price reasonableness. *Tourism Management*, 46, 20-29.
- Herwaldt, L. A., & Rutala, W. A. (1996). Disinfection and sterilization of patient-care items. *Infection Control & Hospital Epidemiology*, 17(6), 377-384.
- Ho, Y. C., Hsieh, M., & Yu, A. P. (2014). and Customer Loyalty in Medical Tourism Services Industry. *Information Technology Journal*, 13(4), 652-660.
- Holt, D. (2016). Branding in the age of social media. *Harvard business review*, 94(3), 40-50.

- Inge Jenssen, J., & Greve, A. (2002). Does the degree of redundancy in social networks influence the success of business start-ups?. *International Journal of Entrepreneurial Behavior & Research*, 8(5), 254-267.
- Ismail, A., Zaki, H. O., & Rose, I. R. (2017). Interlinkages between service quality, customer satisfaction and customer loyalty in Malaysia: A case study of Armed Forces Medical Organizations. *Geografia-Malaysian Journal of Society and Space*, 12(7).
- Kasemsap, K. (2014). The role of social networking in global business environments. *Impact of emerging digital technologies on leadership in global business*, 183-201.
- Kasiri, L. A., Cheng, K. T. G., Sambasivan, M., & Sidin, S. M. (2017). Integration of standardization and customization: Impact on service quality, customer satisfaction, and loyalty. *Journal of Retailing and Consumer Services*, 35, 91-97.
- Kemp, E., Jillapalli, R., & Becerra, E. (2014). Healthcare branding: developing emotionally based consumer brand relationships. *Journal of Services Marketing*, 28(2), 126-137.
- Khaidir, N. A., Habidin, N. F., Jamaludin, N. H., Shazali, N. A., & Ali, N. (2014). Investigation of Six Sigma practices and process innovation for Malaysian healthcare industry. *International Journal of Innovation and Applied Studies*, 5(2), 131.
- Kim, K. H., Kim, K. S., Kim, D. Y., Kim, J. H., & Kang, S. H. (2008). Brand equity in hospital marketing. *Journal of business research*, 61(1), 75-82.
- Kondasani, R. K. R., & Panda, R. K. (2015). Customer perceived service quality, satisfaction and loyalty in Indian private healthcare. *International journal of health care quality assurance*, 28(5), 452-467.
- Konrad, E. D. (2013). Cultural entrepreneurship: the impact of social networking on success. *Creativity and Innovation Management*, 22(3), 307-319.
- Kumar, S., & Srivastava, M. (2016). A Critical Review On Perception & Benefits Of Customer Relationship Management (CRM) System In Indian Private Hospitals. *Adhyayan*, 21.
- Lai, M. C., Chou, F. S., & Cheung, Y. J. (2015). Investigating Relational Selling Behaviors, Relationship Quality, and Customer Loyalty in the Medical Device Industry in Taiwan. *International Journal of Business and Information*, 8(1).
- Lonial, S., & Raju, P. S. (2015). Impact of service attributes on customer satisfaction and loyalty in a healthcare context. *Leadership in health Services*, 28(2), 149-166.

- Makanyeza, C., Makanyeza, C., Chikazhe, L., & Chikazhe, L. (2017). Mediators of the relationship between service quality and customer loyalty: Evidence from the banking sector in Zimbabwe. *International Journal of Bank Marketing*, 35(3), 540-556.
- Marković, S., Lončarić, D., & Lončarić, D. (2014). Service quality and customer satisfaction in the health care industry-towards health tourism market. *Tourism and hospitality management*, 20(2), 155-170.
- Matser, A. M., Krebbers, B., van den Berg, R. W., & Bartels, P. V. (2004). Advantages of high pressure sterilisation on quality of food products. *Trends in Food Science & Technology*, 15(2), 79-85.
- Mattila, A. S. (2004). The impact of service failures on customer loyalty: The moderating role of affective commitment. *International Journal of Service Industry Management*, 15(2), 134-149.
- Menguc, B., Auh, S., Yeniaras, V., & Katsikeas, C. S. (2017). The role of climate: implications for service employee engagement and customer service performance. *Journal of the Academy of Marketing Science*, 45(3), 428-451.
- Minvielle, E., Waelli, M., Sicotte, C., & Kimberly, J. R. (2014). Managing customization in health care: A framework derived from the services sector literature. *Health Policy*, 117(2), 216-227.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *The journal of marketing*, 20-38.
- Mosadeghrad, A. M. (2014). Factors influencing healthcare service quality. *International journal of health policy and management*, 3(2), 77.
- Ncube, N. S., Afolayan, A. J., & Okoh, A. I. (2008). Assessment techniques of antimicrobial properties of natural compounds of plant origin: current methods and future trends. *African journal of biotechnology*, 7(12).
- Nyadzayo, M. W., & Khajehzadeh, S. (2016). The antecedents of customer loyalty: A moderated mediation model of customer relationship management quality and brand image. *Journal of Retailing and Consumer Services*, 30, 262-270.
- Ogba, I. E., & Tan, Z. (2009). Exploring the impact of brand image on customer loyalty and commitment in China. *Journal of Technology Management in China*, 4(2), 132-144.

- Oliver, R. L., Rust, R. T., & Varki, S. (1997). Customer delight: foundations, findings, and managerial insight. *Journal of retailing*, 73(3), 311-336.
- Özer, L., Başgöze, P., & Karahan, A. (2017). The association between perceived value and patient loyalty in public university hospitals in Turkey. *Total Quality Management & Business Excellence*, 28(7-8), 782-800.
- Pitt, M., Chotipanich, S., Issarasak, S., Mulholland, K., & Panupattanapong, P. (2016). An examination of facility management, customer satisfaction and service relationship in the Bangkok healthcare system. *Indoor and Built Environment*, 25(3), 442-458.
- Poku, M. K., Behkami, N. A., & Bates, D. W. (2017). Patient Relationship Management: What the US Healthcare System Can Learn from Other Industries. *Journal of general internal medicine*, 32(1), 101-104.
- Rahimi, R., Nadda, V. K., & Wang, H. (2018). CRM in Tourism: Customer Relationship Management (CRM). In *Digital Marketing and Consumer Engagement: Concepts, Methodologies, Tools, and Applications* (pp. 928-955). IGI Global.
- Reisenwitz, T. H., & Gupta, S. (2016). Brand Loyalty and Store Loyalty for Consumers Purchasing a Product Warranty in a Health Care Setting: An Investigation of the Differences across Gender, Age, and Income Groups. *Journal of Business Strategies*, 33(1), 1.
- Rivers, P. A., & Glover, S. H. (2008). Health care competition, strategic mission, and patient satisfaction: research model and propositions. *Journal of health organization and management*, 22(6), 627-641.
- Rutala, W. A., & Weber, D. J. (1999). Infection control: the role of disinfection and sterilization. *Journal of Hospital Infection*, 43, S43-S55.
- Rutala, W. A., & Weber, D. J. (2001). New disinfection and sterilization methods. *Emerging infectious diseases*, 7(2), 348.
- Rutala, W. A., & Weber, D. J. (2007). How to assess risk of disease transmission to patients when there is a failure to follow recommended disinfection and sterilization guidelines. *Infection Control & Hospital Epidemiology*, 28(2), 146-155.
- Rutala, W. A., & Weber, D. J. (2010). Guideline for disinfection and sterilization of prion-contaminated medical instruments. *Infection Control & Hospital Epidemiology*, 31(2), 107-117.