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Determinants of Customer Satisfaction in Healthcare Services; A Case study of St. Paul Hospital.

A THESIS PAPER SUBMITTED TO ADDIS ABABA UNIVERSITY FOR PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER'S DEGREE IN BUSINESS ADMINISTRATION IN MANAGEMENT.

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Declaration

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List of Acronyms

CS: Customer satisfaction

TC: Technical care

IC: Interpersonal care

AV: Availability

PE: Physical environment

OC: Outcome of care

MoH: Ministry of Health

SPSS: Statistical Package for the Social Science

KMO: KaiserMeyer-Olkin

ANOVA: Analysis of Variance

Abstract

CS is a key component of healthcare services since it indicates the caliber of treatment delivered and affects client outcomes and loyalty. With a focus on St. Paul Hospital specifically, the purpose of this study is to look at the factors that influence CS in the setting of a public hospital. Total 390 customers of St. Paul hospital were given questionnaires to complete in order to gather data out of which 384 did fill the questionnaire correctly. The study used the factors TC, IC, accessibility, PE, and out of care as an independent variable that may have an impact on consumer satisfaction which is a observed variable. A questionnaire is used as a data collecting tool and the data was analyzed using SPSS v20. The findings indicate that all the five independent variables are positively related with the observed variable and while the four variables that are TC, IC, AV and OC showed significant relationship with the CS, PE has shown insignificant relationship with the CS. TC was found to be the most significant out of the four significant variables whereas AV was found to be the least significant variable out of the four variables. For improving CS level, efforts must be made to work more on TC that is improving the accuracy of diagnosis, quality of nursing care, ethics of professionals and others. This study advances knowledge of CS in public hospitals, particularly in relation to St. Paul Hospital. The findings provide important information for hospital administrators, policymakers, and healthcare providers.

Keywords: CS, TC, IC, AV, PE, OC, Public hospital, healthcare service quality, St. Paul Hospital,

CHAPTER ONE

INTRODUCTION

Overview and issues related to the study, objectives, significance, research method, scope, limitations, and organizational structure are all covered in this chapter.

1.1 Background of the study

For any organization, customers are the main source of revenue and profit, and achieving customer satisfaction (CS) is the ultimate objective of any industry (Kondo, 2001). CS has been defined differently by various researchers. According to Al-Jumaili et al. (2020), CS is dependent on the customer's experiences with the business and their own personal interactions. Customers have needs and wants, which an organization must acknowledge and take into account if it hopes to turn a profit. Therefore, an organization needs to work on its customers' needs and wants (Hasim et al., 2018).

CS measures how happy customers are with the products they received and their overall experience working with the company. Receiving high-quality products and services from customers results in organizations making the necessary earnings, which wasallow the organization to grow. CS is also crucial to corporate success since keeping an existing customer is less inexpensive than acquiring a new one (Yussoff & Nayan, 2020).

It is frequently discovered that more efforts are required to truly satisfy customers (Kondo, 2001). CS is crucial for any organization since it influences the financial health of a company and positively influences how the public views its performance. As a result, it is essential for an organization to CS by offering the greatest product, satisfying customers, and effective after-sale solutions (Basari & Shamsudin, 2020). Organizations can no longer just rely on high-volume, low-cost production if they want to continue expanding or even merely to exist in the market. Instead, in order to remain competitive in the market, companies concentrate their efforts on addressing gaps and wishes of clients (Ji, 2010). Customers' reviews of the care or service's quality, whether positive or negative, might influence whether or not potential customers are attracted to the organization (Caroline k. Ross, 1987).

Modern management science considers CS as a necessary performance threshold and possible excellence standard for every organization (S.F.Amiri Aghdaie, 2012). Understanding consumer needs enables one to provide current customers with more specialized items and superior service, increasing sales and improving one's reputation, which in turn attracts new customers. Customer feedback is constantly used to improve performance. It can particularly motivate employees to exert additional effort (Schneider, 2000). CS is essential for oversight due to its huge effects on both the long-term performance of firms and consumer purchasing behaviors. In market-driven healthcare organizations, management places a high value on consumer input since they must entice new clients while retaining current ones to maintain or grow market share. CS in healthcare facilities is a crucial component of the healthcare sector.

Customers demand top-notch service and attention from healthcare providers, and how satisfied they are with the care they receive can have a big impact on their health and general well-being. According to Ethiopia's Ministry of Health (MOH),its principal objective is to promote the health and well-being of society by offering and managing a full range of health services of the best quality in an equitable manner (Yibeltal Kiflie et al., 2023). It's crucial to concentrate on a few critical areas in order to ensure CS in healthcare facilities. Healthcare facilities can raise CS and offer better care to their clients by concentrating on five important areas. Healthcare organizations have been working to raise the standard of care given to customers in recent years as a result of their recognition of the value of CS.

The healthcare system, healthcare professionals, and customers themselves all have an impact on CS. To improve CS, healthcare facilities must concentrate on offering customer-centered care and enhancing communication. Building trust, addressing customers' issues, and ensuring that customers are involved in the decision-making process surrounding their health can all be achieved through effective communication between healthcare providers and customers. As the demand to improve healthcare delivery develops, all healthcare facilities should be trying to improve the quality of healthcare. A significant determinant of the level of healthcare is the level of CS. Additionally; studies have revealed a important connection between customer results and

CS levels, highlighting the significance of customer happiness for how well consumers perform.

CS is one of the most crucial components of a successful business or government strategy, and it can only be sustained by delivering outstanding service that boosts satisfaction (Sun et al., 2017). The CS notion is frequently measured since it applies to health services, although research suggests that it is a poorly established concept (Batbaatar et al, 2015). The views of customers are becoming more and more important in the process of improving a health care delivery system. If a customer feels content or happy after using a health service, they are considered to be satisfied. Therefore, providing excellent customer service must be a provider's top priority. It is one of the criteria used to gauge how effective and efficient a hospital is, with the latter being associated with the provision of high-quality treatment and services. The easiest way to gauge how well healthcare services are being delivered is through CS (Nie et al., 2013).

CS is a critical measure for evaluating the delivery of healthcare services (Ganasegeran et al., 2015). Studying CS in healthcare centers is important as its critical measure of the quality of healthcare services provided by healthcare centers. Customers expect to receive high-quality care and attention from healthcare professionals, and their happiness with the care they obtain can have a significant impact on their health outcomes and overall well-being.

By studying CS, healthcare centers can identify areas where they need to improve the care quality given to customers. It can also help healthcare centers identify areas where they can improve their operations and services. For example, healthcare centers can use customer feedback to improve communication with customers, reduce waiting times, and enhance the overall customer experience. This can help healthcare centers attract and retain customers and improve their reputation in the community. The study of CS can help healthcare centers meet regulatory requirements and accreditation standards. Many regulatory bodies require healthcare centers to measure and report on CS as part of their accreditation process. Healthcare centers can ensure that they meet these requirements and maintain their accreditation status.

Finally, the study can help healthcare centers stay competitive in the healthcare market. Customers have many options when it comes to healthcare providers, and they are more likely to choose healthcare centers that provide high-quality care and have high levels of CS. By studying CS, healthcare centers can improve their services and attract more customers, thereby increasing their market share. CS also has a significant impact on healthcare center management. There are some of the ways in which CS affects healthcare center management.

For customer Retention, customers who are satisfied with their healthcare experience are more likely to come back to the healthcare center for future services and promote the center to others. This can help increase customer retention rates, which can have a positive impact on the healthcare center's financial performance and reputation. Reputation Management, a healthcare center's reputation is critical to its success, and CS plays a significant role in shaping that reputation. Customers who are satisfied with their experience are more inclined to provide favourable evaluations and ratings, which might aid in luring in new clients. On the other hand, unhappy consumers are more inclined to provide bad evaluations, which can damage the healthcare center's reputation.

Staff Retention, a healthcare center's staff plays a critical role in delivering high-quality care and enhancing cs. If staff members feel that they are working in a positive and supportive environment, they are more likely to stay with the healthcare center. In contrast, if staff members are dissatisfied with their working conditions, they may leave, which can have a negative impact on CS. Operational Efficiency, healthcare centers that prioritize CS are more likely to have efficient and streamlined operations that is if a healthcare center prioritizes reducing wait times, they may implement strategies such as appointment scheduling software or triage processes to improve efficiency and reduce wait times. Financial Performance, ultimately, CS has a significant impact on a healthcare center's financial performance. Customers who are happy with the centre are more likely to suggest it to others and return for further services, and leave positive reviews. This can help increase revenue and profitability, which can have a positive impact on the healthcare center's overall financial health.

In conclusion, CS has a significant impact on healthcare center management, including customer retention, reputation management, staff retention, operational efficiency, and financial performance. Healthcare centers that prioritize CS are more likely to succeed and thrive in the competitive healthcare market. Therefore, studying CS in healthcare centers is important for improving the standard of care given to clients, identifying areas for improvement, meeting regulatory requirements and accreditation standards, and staying competitive in the healthcare market.

1.2 Statement of the problem

CS is an essential aspect of every organization since it directly affects how well the organization retains customers through the products and services it offers as well as how well the organization keeps customers satisfied. Therefore, it is important to regularly evaluate the health care systems in terms of CS. CS in healthcare centers affects clinical results, keeping customers, and medical malpractice lawsuits. As a result, a representative but highly efficient predictor of the physician's or hospital's effectiveness is the satisfaction of its customers.

Comparing the private and public hospitals, public hospitals pay less attention to CS because they are subjected to government regulations and receive all of the government's funding, whereas private sector organizations are established as for-profit businesses that can offer their customers more effective treatment and services. Customers at private hospitals must pay more to receive the required level of treatment (Tateke et al., 2012).

Despite the fact that this subject has been the subject of numerous researches in other countries, in Ethiopia not much attention has been paid to it. Even with the growing emphasis of Customer-centered care and quality improvement initiatives in healthcare, CS with healthcare services remains a challenge (Bamidele et al., 2011). Healthcare centers strive to improve CS to meet regulatory requirements, improve customer outcomes, and stay competitive in the healthcare market. However, identifying the key determinants of CS in healthcare centers remains a complex and multifaceted challenge. Therefore, the problem this thesis aims to address is What are the determinants of CS in

St. Paul Hospital, and how can the hospital use this knowledge to improve CS and enhance the overall quality of care provided to customers.

1.3 Research Questions

The following question of research was briefly looked at in the study:

Main research question

What factors are the most important for Customer Satisfaction in the public health sector, St Paul Hospital, and how do they affect the entire client experience?

Sub-research questions

1. How does Technical Care influence overall Customer Satisfaction in St, Paul Hospital?

2. How does Interpersonal Care influence overall Customer Satisfaction in St, Paul Hospital?

3. How does Availability influence overall Customer Satisfaction in St, Paul Hospital?

4. How does Physical Environment influence overall Customer Satisfaction in St, Paul Hospital?

5. How does Outcome of Care influence overall Customer Satisfaction in St, Paul Hospital?

1.4.1 General Objective of the study

Examining CS variables and the extent to which they have an influence on the total customer experience is the study's general objective.

1.4.2 Specific Objectives of the study

The following are the study's particular goals:

1. To investigate the relationship between Technical Care and Customer Satisfaction

.2. To investigate the relationship between Interpersonal Care and Customer Satisfaction.

3. To investigate the relationship between Availability and Customer Satisfaction.

.4. To investigate the relationship between Physical Environment and Customer Satisfaction.

5. To investigate the connection between Outcome of Care and Customer Satisfaction.

1.5 Significance of the study

The study is significantly important to governmental hospitals. The findings could provide the hospitals with insights into the factors that affect CS, enabling them to advance the quality of their services and enhance the overall client experience. This could lead to increased customer retention rates, improved healthcare outcomes, and a better reputation for the hospital.

The study is also significant to customers as they can have a greater comprehension of the variables that impact their healthcare experience. This knowledge can empower customers to make more informed decisions when choosing a healthcare provider and enable them to provide feedback to hospitals to improve their services.

Healthcare providers can use the findings to identify areas for improvement in their services, which can help them enhance CS and improve the overall quality of care. Policy makers can inform policy decisions and regulations that promote customer-centered care and quality improvement in public hospitals. This can help ensure that customers receive high-quality care and have a positive healthcare experiences.

The Ministry of Health's main objective is to see healthy, productive, and prosperous Ethiopians. This study can also assist the Ministry of Health in achieving its goals, which wasaid in the development of the nation. The study can also contribute to the body of knowledge on CS in government hospitals, providing a basis for further research in this area.

Therefore, the study on the determinants of CS in government hospitals can have significant implications for various stakeholders in the healthcare industry, including public hospitals, customers, healthcare providers, policymakers, and researchers.

1.6 Scope of the study

Ethiopia has different governmental hospitals; however this study only focused on St. Paul Hospital. The researcher was unable to incorporate and evaluate all of the issues that each customer in each hospital had because of the vast scope of the determinants associated to each customer. Since data was only obtained from St. Paul Hospital for the sake of uniformity and because the researcher was unable to include other institutions in the study, the researcher does not advise readers to generalize to all of Ethiopia's governmental hospitals. Future study may address this gap to gain a more thorough understanding of the effect of focusing on CS on the standard of healthcare.

1.7 Organization of the study

The structure of the study is as follows. Background information, a problem statement, a question to investigate, an aim, importance, and an area of study are included in the first chapter as an introductory. The next section, titled "Literature Review," contains a conceptual basis for the study as well as theoretical underpinnings and an empirical evaluation. The methodology portion of the study then describes the research layout, number of samples and selection, the factors, and data evaluation. The result and discussion part is in Chapter 4. The conclusion, summary, and suggestion sections are included in the last chapter.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

There has been a rise interest in recent years in understanding the factors that influence CS in healthcare settings (Pishgar et al., 2013). CS, an essential indicator of the standard of healthcare services, has a substantial impact on the efficiency of the healthcare system, customer outcomes, and healthcare practitioner performance. Government institutions play a crucial role in providing inexpensive and accessible healthcare services to a sizeable segment of the population.

According to Tateke et al. (2012) CS at public hospitals is typically lower than in private hospitals, thus government and medical professionals should pay more attention to boosting. Understanding the elements that affect CS in public hospitals is crucial for pinpointing improvement opportunities and raising service standards. Accessibility, the level of treatment, staff behaviors and interaction, facility hygiene, conveniences, and customer demographics are just a few of the factors that have been identified to influence CS in earlier studies. But due to scarce resources, traffic, varying levels of demand, and complexity, public hospitals face unique challenges. Therefore, public hospitals must have a deeper understanding of these drivers that is also context-specific (Chow-Chua & Goh, 2002).

A significant portion of the population receives basic healthcare services from government hospitals in low- and middle-income nations like Ethiopia. However, CS with public hospitals in these environments is frequently poor, and enhancing customer happiness has emerged as a top concern for healthcare providers and politicians. In Addis Ababa, the nation's capital, St. Paul Hospital serves a sizable and diversified population. It is one of Ethiopia's oldest public hospitals. To improve the standard of treatment and the customer experience, it has recently undergone a number of reforms and modifications. It's essential to comprehend the factors that influence c at St Paul Hospital in order to spot opportunities for development and raise the standard of care.

Prior research in Ethiopia has found a number of characteristics, including staff interaction, the quality of treatment, delays, and facilities that affect CS. As a result of resource shortages, overcrowding, and a range of demand and complexity levels, St. Paul Hospital has particular difficulties requiring for a more thorough knowledge of these variables in that setting.

This literature review aims to synthesize and analyze the existing literature on the determinants of CS in public hospitals, with a specific focus on St. Paul Hospital in Ethiopia. It wasprovide an overview of theoretical frameworks and models relevant to CS in healthcare, review the empirical evidence on the determinants of CS in St. Paul Hospital. The findings of this literature review washave important implications for improving CS in St. Paul Hospital and enhancing the overall quality of healthcare services in Ethiopia.

CS has been extensively researched in public hospitals around the world as an important indicator of healthcare quality (Alrubaiee & Alkaa'ida, 2011). The factors that affect CS in public hospitals have been the subject of several studies, including those done in Ethiopia. With an emphasis on research done in Ethiopia, this review of the literature attempts to give an overview of the body of knowledge on CS in public hospitals.

Customer factors like age, gender, and educational attainment have been discovered to have an impact on satisfaction at the individual level (Gebremichael et al., 2017). Additionally, it has been demonstrated that customer expectations and perceptions of healthcare treatments are very important in determining satisfaction (Johnson et al., 2019). CS has been found to be significantly influenced by a variety of organizational characteristics, including service quality, employee communication and attitudes, time spent waiting, easy access, and facilities. Additionally, it has been demonstrated that outside variables including economic conditions and cultural attitudes and practices affect CS (Sharew et al., 2018).

Surveys, interviews, and observational studies are just a few of the several instruments and techniques that have been used to quantify CS. Several studies have measured CS in Ethiopia using standardized instruments such the SERVQUAL and CS Questionnaire

(CSQ) (Al-Damen, 2017). Additionally, to examine customer experiences and perspectives more deeply, several studies have used qualitative techniques like deep interviews and focus group discussions (Engelman et al., 2019).

Issues and difficulties Public hospitals in Ethiopia confront a number of difficulties in delivering excellent care and ensuring CS, notwithstanding the significance of CS in healthcare. These issues include a lack of funding, insufficient infrastructure, a paucity of qualified healthcare workers, and inadequate management systems (Gebremichael et al., 2017). However, raising customer loyalty, enhancing healthcare outcomes, and boosting the reputation and financial success of medical facilities are just a few of the advantages that can come from raising CS in public hospitals.

In general, the research on CS in public hospitals emphasizes the value of comprehending the various factors that influence satisfaction, measuring satisfaction with the right instruments and techniques, and addressing the difficulties that healthcare providers face in providing high-quality services.

Technical Care

TC describes the treatments, actions, and medical procedures customers receive from healthcare professionals. CS in healthcare settings has been found to be significantly influenced by the technical treatment provided. The connection between TC and CS in public hospitals was investigated in this review of the literature. Technical Support and Customer Contentment Numerous research have looked into the connection between CS and TC.

A study by Shan et al. (2016) found that In Chinese public hospitals, CS was favorably correlated with the technical quality of care. According to the survey, those who received TC of a better quality expressed greater levels of satisfaction with their healthcare experiences. Similarly, a study by Fatima et al. (2018) discovered that in Pakistan's public hospitals, TC was a strong predictor of CS. It discovered customers were more likely to express higher levels of satisfaction with their healthcare experience when they received higher-quality TC.

Kamenaga et al. (2018) identified that in Japanese public hospitals, TC was a strong predictor of CS. According to the study, customers were more likely to express greater levels of satisfaction with their healthcare experience when they received higher quality technical treatment.

On the topic of the relationship between TC and CS, various studies have also produced conflicting findings. Kashian and Mirzaei (2019) found in Iranian public hospitals, TC was not a reliable indicator of CS. According to the survey, other elements including human interaction and hospital services were more crucial indicators of CS.

Overall, the research points to TC as a significant factor in determining CS in public hospitals. However, there may be differences in the relationship between TC and CS in various healthcare environments and cultural situations. More investigation is required to better understand the elements that affect CS in healthcare settings and to pinpoint practical methods for enhancing the standard of TC.

Interpersonal care

Healthcare professionals who communicate with customers and treat them with empathy and respect are said to be providing IC. CS in healthcare settings has been found to be significantly influenced by the standard of IC provided. The connection between IC and CS in public hospitals was examined in this review of the research. Numerous researches have looked into how CS and IC are related.

According to Kron et al. (2017) CS in Australian public hospitals was most significantly influenced by IC. According to the study, customers who expressed a high level of IC were also more likely to express a high level of overall satisfaction with their healthcare. Kandampully et al. (2018) stated that IC was a significant predictor of CS in Chinese public hospitals. Customers were more likely to express high levels of satisfaction with their healthcare experience when they received high-quality IC.

Le et al. (2018) found that IC was a significant predictor of CS in Vietnamese public hospitals. However, a study by Al-Abri and Al-Balushi (2014) found that although IC

was an important factor in CS in Omani public hospitals, it was not the most important factor.

According to the survey, other significant factors of CS included hospital infrastructure, the length of wait, and the standard of medical care. Overall, the research indicates IC as a significant factor in determining CS in public hospitals. However, there may be differences in the relationship between IC and CS in various healthcare environments and cultural situations. More investigation is required to better understand the elements that affect CS in healthcare settings and to pinpoint practical solutions for raising the standard of IC.

Physical environment

The term "PE" describes the aesthetic, configuration, and comfort of the actual places in healthcare facilities. In healthcare settings, the PE's quality has been identified as a key factor in determining consumer happiness. The relationship between the PE and CS in public hospitals was investigated in this review of the literature. The connection between the PE and CS has been examined in several researches.

Fang et al. (2019) & Lee et al. (2015) found that the PE was a significant predictor of CS in Chinese public hospitals. The study found that customers who perceived the PE to be clean, comfortable, and aesthetically pleasing were more likely to report high levels of satisfaction with their healthcare experience. Similarly another study found that the PE was a significant predictor of CS in Indian public hospitals and South Korean public hospitals respectively. The studies found that customers who perceived the PE to be clean, well-maintained, clean and comfortable were more likely to report high levels of satisfaction with their healthcare experience.

Some studies, however, have found that although the PE was an important factor in CS in Singaporean public hospitals, it was not the most important factor. The study found that factors such as the quality of medical care, hospital facilities, and waiting times were also important determinants of CS. According to the literature, the PE in public hospitals

plays a significant role in determining CS. However, there may be differences in the relationship between the PE and CS in various healthcare settings and cultural situations. More investigation is required to better understand the elements that affect CS in healthcare settings and to pinpoint practical solutions for raising the standard of the built environment in public hospitals.

Availability

In health care institutions, AV is one of the major factors affecting CS. It refers to the services' accessibility and responsiveness. Customers desire rapid access to healthcare services and the ability to reach healthcare professionals at any time. In this review of the literature, we wasinvestigate the connection between accessibility and CS in public hospitals. The relationship between AV and CS in public hospitals has been the subject of many different researches.

A study by Chang et al. (2021) found that AV was a significant predictor of CS in Chinese public hospitals. The study found that customers who perceived the AV of healthcare services to be high were more likely to report high levels of satisfaction with their healthcare experience. Elzubeir also found that AV was a significant predictor of CS in Sudanese public hospitals. It stated that customers who reported higher levels of AV of healthcare services were more likely to report high levels of satisfaction with their healthcare experience.

However, Yeshanew et al. (2017) found that although AV was an important factor in CS in Ethiopian public hospitals, it was not the most important factor. Factors such as the quality of healthcare services, customer-provider communication, and hospital infrastructure were also important determinants of CS. In general, AV is an important determinant of CS in public hospitals. However, the relationship between AV and CS may vary across different healthcare settings and cultural contexts. Further research is needed to better understand the factors that contribute to CS in healthcare settings and to identify effective strategies for improving AV of healthcare services in public hospitals.

Outcome of care

In healthcare settings, the OC plays a crucial role in calculating the CS. Customers seek out healthcare services in order to enhance their health results, and they anticipate receiving high-quality treatment from healthcare professionals. The connection between the OC and CS in public hospitals was investigated in this review of the literature. CS and OC The interaction between the OC and CS at public hospitals has been the subject of several research.

Mummaneni et al. (2019) discovered that in Chinese public hospitals, the OC was a strong predictor of CS. The study discovered clients who experienced better health outcomes as a result of their use of healthcare services were more likely to express a high degree of pleasure with that experience. Similar to this, a research in Ethiopian public hospitals discovered that the OC was a strong predictor of CS. According to the study, patients who experienced good health outcomes after obtaining medical care were more likely to express high levels of satisfaction with their care. Another study discovered that in Nigerian public hospitals, the OC was a strong predictor of CS. Customers who reported better health outcomes, such as reduced pain and more mobility, were more likely to express high levels of satisfaction with their healthcare experience, according to the study.

However, some research on the connection between the OC and CS has produced contradictory findings. According to a research, the OC was not the only element contributing to the CS in Iranian public hospitals, although being a significant one. The research discovered that CS was also significantly influenced by other variables, including hospital infrastructure and customer-provider communication. Conclusion The majority of the research points to the OC as a significant factor in CS in public hospitals. Customers seek out healthcare services in order to enhance their health results, and they anticipate receiving high-quality treatment from healthcare professionals.

2.2 Theoretical foundation of the study

Yaghoubi et al. (2017) said that one of the problems in the extremely competitive environment of health organizations is reacting to customers' needs and winning their trust and happiness as quickly as possible, with the greatest quality, and with the most productivity. Because of the importance and influence of CS and loyalty in winning market share, he continues, organizations look to customer relationship management as a method of improving their profitability. The appraisal theory states that after being exposed to an external stimulus, customers evaluate the performance of a service, while it is not known how they would react to it. The stimulation can elicit both positive and negative feelings that have an impact on how people evaluate products. The expectancy disconfirmation theory suggests a connection between CS and previous service expectations (Zibarzani et al., 2022).

The expectation/disconfirmation theory serves as the study's theoretical cornerstone. The expectation/disconfirmation hypothesis states that there are two possible outcomes: affirmation (satisfaction) if the outcome is as expected, and negative disconfirmation (dissatisfaction) if the expectation is not realized (Wu & Riantama, 2022). Verleye et al. (2021) stated some hospitals have implemented the consumer orientation strategy to better meet their customers' requirements, wants, and desires.

In today's cutthroat marketplace, healthcare professionals must prioritize customer concerns. Customer opinions about healthcare providers and their services have a big influence on how successful an organization wasbe in the long run. Therefore, Rahmani et al. (2017) added that a key strategy to improve medical and healthcare institutions in the current competitive environment and draw CS is to use the concept of value in the sector. Both in developed and underdeveloped countries, the healthcare sector is expanding at the highest rate, with population health improvement as its main goal. Governments, health organizations, and individuals are becoming increasingly concerned about the quality of healthcare being provided. As people's health improves, contacts with the healthcare system have an impact on their well-being (Maharlouei et al., 2017).

Many reviews of CS with healthcare services have been examined. According to Al-Abri et al. (2014) Healthcare management is incorporating customer-centered care as a crucial component of the healthcare mission because they have already noticed trends towards continual quality improvement. According to the study, CS surveys are becoming more and more popular because they are important and significant sources of data for identifying gaps and formulating a successful strategy for enhancing the quality of healthcare organizations.

The results of CS survey replies are unfortunately rarely described in published research, and when they are, they frequently reach contradictory findings. The majority of the evaluated literatures agreed that assessing CS affects how well care is provided. Customers' assessments of their treatment are an effective way to identify issue areas and improve strategic decision-making, improving cost control, meeting customer needs, developing management strategies, monitoring health plan performance, and benchmarking between healthcare facilities.

The Ethiopian government has not yet given these practises enough consideration. People's health and well-being are the healthcare system's guiding principles, and meeting people's needs and wishes in the area of health is their performance metric. Due to increased competition among healthcare service providers and increased consumer awareness of hospital services, customer expectations have increased. In order to retain clients, healthcare service providers must offer value to their customers. Healthcare service providers should aim to build and maintain customer loyalty in order to increase their market share and enhance societal health. Srivastava et al. (2015) 99 percent of maternal deaths each year take place in developing nations, according to a study. It is essential to gauge mothers' satisfaction with care while enhancing service accessibility and keeping accepted levels of quality. This helps to make care more culturally and linguistically appropriate, which ultimately lead to an increase in use and better results. At a time when global efforts to reduce maternal mortality have risen, governments in underdeveloped nations must address mother satisfaction and its causes.

CS, defined as a consumer's viewpoint and attitude towards their entire medical treatment experience, is a complex aspect and a key indicator of the standard of medical care

delivery. (Al-Abri et al., 2014) showed that, historically, professional practice standards served as the foundation for assessing the quality of healthcare services; nevertheless, throughout the past 20 years, customer impression of the calibre of care has grown to become an important factor. The health system's practices show that health authorities see customers as the finest judges who fairly assess and offer suggestions to aid in the expansion of high-quality health care by fixing system flaws.

The Ethiopian MoH is developing a number of national quality management guidelines and health sector development plans in an effort to increase CS and improve the overall standard of healthcare delivered in the country. Because they are involved in both inpatient and outpatient care as well as hospital management duties, nurses in Ethiopia are seen as the cornerstone of the healthcare system alongside other healthcare professionals. They can also provide health education and home health care services, both of which have a major positive impact on illness prevention and treatment. As a result, nurses have a unique perspective when evaluating the quality of a country's overall healthcare system. However, the standard of nursing treatment in Ethiopia is subpar (Hagos et al., 2014).

Even though there haven't been many studies to determine how content Ethiopian patients are with their nursing care, those that have been conducted so far have had small sample numbers, contradictory findings, and were limited to a single hospital. Therefore, it is unclear how happy patients are with nursing care nationally. Private hospitals tend to care less about their patients than government or public ones, in comparison. This is due to the fact that government hospitals receive much lower payments and have a far larger patient population than private hospitals; as a result, healthcare staff may be less attentive to their patients' needs and satisfaction. Contrarily, private healthcare institutions treat their patients even when they charge more prices and serve fewer people than public (government) facilities. After conducting a research (Basu et al., 2012) have concluded that, Compared to patients at public hospitals, those in private hospitals are more satisfied. More satisfied than those who receive care in public hospitals are customers who receive it in private hospitals.

The study also showed that a wide range of factors, including government funding, the government's lack of interest in launching new health initiatives, and an increasing burden on hospitals as a result of population growth and urbanization, affected the government hospital's service quality. A study found that long wait times for services might affect CS with the quality of the hospital and the services they receive, which in turn lowers patients' loyalty to the hospital. Raising CS by identifying the primary areas that may be improved is the most successful strategy and core component of continuous quality improvement.

CS data is widely regarded to be crucial for assisting healthcare providers in refining their healthcare strategies and delivery techniques. Along with its role in enhancing the quality of health service delivery and the growing movement towards provider accountability, CS measurement is crucial to the development and delivery of high-quality hospital care that involves customers in the management of their problems and treatments(Shinde et al., 2014) stated that currently, Particularly in developing nations, the healthcare system places a high priority on CS.

According to numerous studies, a satisfied customer is one who repeatedly seeks medical care from a certain healthcare provider, complies to the medical recommendations, and follows service provider advise. This might result in quicker disease recovery and contented, healthier customers who advance the growth of the country (Renzi et al., 2015). Improved health outcomes are directly correlated with CS, according to published research. Achieving the highest level of patient satisfaction with nursing care also leads to higher customer compliance with treatment programs (Wagner & Bear, 2008). A number of causes, including rising prices, dwindling resources, and evidence of variances in clinical practise, have contributed to an increased need to evaluate and improve the quality of healthcare in many different countries.

The degree of CS is one of the strategies used to assess the quality of healthcare services because it has been demonstrated that doing so is associated with high CS and better health outcomes. However, it seems that customers' opinions on healthcare systems were not given much consideration by health care management in impoverished countries.

Batbaatar (2017) said it is essential for nurses to recognize the factors that influence client satisfaction in order to consistently improve the caliber of nursing care.

The degree to which a consumer is satisfied with nursing care might depend on a variety of factors. Mohammed et al., (2016) states that umerous studies have been conducted recently on the degree of CS with nursing care. Surveys show that almost one in two Ethiopian customers were not satisfied with the nursing care they received (Mulugeta et al., 2019). Customer admittance history, residence, the nurse's AV, and the presence of coexisting conditions all had an impact on CS, even though the relationship between them was not statistically significant.

The results of several researches revealed a statistical relationship between appropriate admission procedures, short wait times for services, preservation of patient privacy and confidentiality, and relevancy of information services offered to customers. However, some academic studies have also asserted that interpersonal and communication skills are a significant predictor of CS. Maternal satisfaction was determined by taking into account all aspects of the care, including the plan, the approach, and the outcome. The structural elements included good physical conditions, hygienic conditions, and the AV of enough human resources, pharmaceuticals, and supplies. Process determinants included interpersonal behaviour, privacy, promptness, cognitive care, perceived provider competency, and emotional support.

The health of the mother and the infant was an outcome-related determinant. Mothers' satisfaction levels were influenced by a variety of factors, including accessibility, cost, socioeconomic status, and prior reproductive experiences. The caregiving process dominated the variables affecting maternal satisfaction in underdeveloped countries. Interpersonal interaction was the most often reported aspect, with the majority of the research concentrating on the politeness and non-abusive behaviour of providers. Encouragement of labouring women and staff, therapeutic dialogue, and staff competence and confidence were further components of interpersonal behaviour. Initiatives to improve quality in less developed countries may focus on improving healthcare delivery. Women cherish respectful treatment regardless of their socio-cultural or economic

background, as evidenced by the review; therefore, improved interpersonal skills require specific attention.

Additional research on maternal satisfaction in connection to home deliveries and the relative significance of various variables is required (Srivastava et al., 2015). The study's findings indicate that hospital management should focus their attention on a number of factors, including timely service delivery, compassionate staff, correct invoicing, clear communication regarding service delivery time, promptness of services, and staff members' eagerness to help customers. Assuring, being tangibly present, and showing empathy are less crucial because the customer depends on the recommendations of the treating physician (Meesala & Paul, 2018).

CS data is widely regarded to be crucial for assisting healthcare providers in refining their patient care strategies and delivery techniques. Along with its role in enhancing the provision of high-quality health services, CS measurement plays a vital part in the development and delivery of high-quality hospital care that involves customers in the management of their problems and treatment. It also has a big part to play in the movement towards greater provider responsibility. It is acknowledged as a trustworthy indicator of care quality, although being eclipsed by assessments of organizational aspects in the quality of health care equation.(Asamrew et al., 2020)

There are many variables that affect CS in healthcare settings, and they can be divided into three categories: individual, organizational, and external. The customer's specific qualities, expectations, and experiences with healthcare services influence CS at the individual level. CS is influenced by the care quality, staff attitudes and communication, accessibility, amenities, and other elements of the healthcare delivery system at the organizational level. CS is influenced by external factors, such as healthcare policies, societal conventions, cultural beliefs, and economic conditions, that are outside the healthcare provider's control. The SERVQUAL model, developed by Parasuraman et al. (1985), is one of the most used theoretical models for evaluating consumer satisfaction in service-related businesses, such as healthcare.

The concept suggests that the discrepancy between customers' expectations and perceptions of service quality—which can be assessed using five characteristics—determines the satisfaction of customers. These dimensions include tangibles, reliability, responsiveness, assurance, and empathy. This approach has been used in a variety of healthcare settings and has been discovered to be an effective tool for pinpointing areas where service quality needs to be improved. Several additional theoretical frameworks and models may also be pertinent in the situation of St. Paul Hospital in Ethiopia to comprehend the factors that influence consumer satisfaction. Donabedian (1966) proposes that three criteria—structure, method, and outcome—can be used to assess the quality of healthcare services.

The organisational aspects, including as workforce levels, tools, and facilities, that affect CS may be examined using this model. In addition, the Rosenstock-developed Health Belief Model (HBM) may be helpful for analysing the many aspects of CS, such as patient beliefs, attitudes, and health-seeking behaviours. With a focus on St. Paul Hospital in Ethiopia, this theoretical framework generally direct the review of the available research on the level of determinants of CS in public hospitals. The framework is utilized to find pertinent theoretical ideas and models, combine and analyze empirical data, and create the study's goals and research questions. The results of this literature analysis give readers a thorough grasp of the factors that affect customer happiness at St. Paul Hospital and help researchers establish plans for enhancing Ethiopia's healthcare system's patient contentment and quality.

2.3 Emperical review of the literature

Related studies have shown the influence of some factors and their interaction with the final CS. Physician service, laboratory and radiology services, pain management, and inpatient pharmacy service were the majority of variables within the patient and healthcare provider interaction domain that were significant predictors of net overall CS. Several studies have found that TC, which includes medical treatment, diagnostic accuracy, and effectiveness of care, significantly influences CS in public hospitals.

Ephraim-Emmanuel et al. (2018) found that the quality of medical care provided by public hospitals in Nigeria was a significant determinant of CS. IC, which includes the quality of communication, empathy, and respect shown by healthcare providers, has also been found to be a significant determinant of CS in public hospitals.

A study by Lu et al. (2021) found that the interpersonal quality of care was positively associated with CS in Chinese public hospitals. AV of healthcare services, including access to healthcare facilities, waiting times, and appointment AV, has been found to be another significant determinant of CS in public hospitals. McCaughan et al. (2021) found that the AV of appointments and waiting times were significant predictors of CS in public hospitals in Northern Ireland. The PE of a hospital, including cleanliness, comfort, and overall atmosphere, has also been found to significantly influence CS. Another study found that the PE was one of the most significant determinants of CS in public hospitals in Nigeria.

The OC, including the effectiveness of treatment and the overall health outcomes of customers, has been found to be another significant determinant of CS in public hospitals. A study found that the OC was positively associated with CS in Chinese public hospitals. Overall, the literature suggests that TC, IC, AV, PE, and OC are all important determinants of CS in public hospitals. Hospitals should focus on improving these factors to enhance CS and improve overall healthcare outcomes.

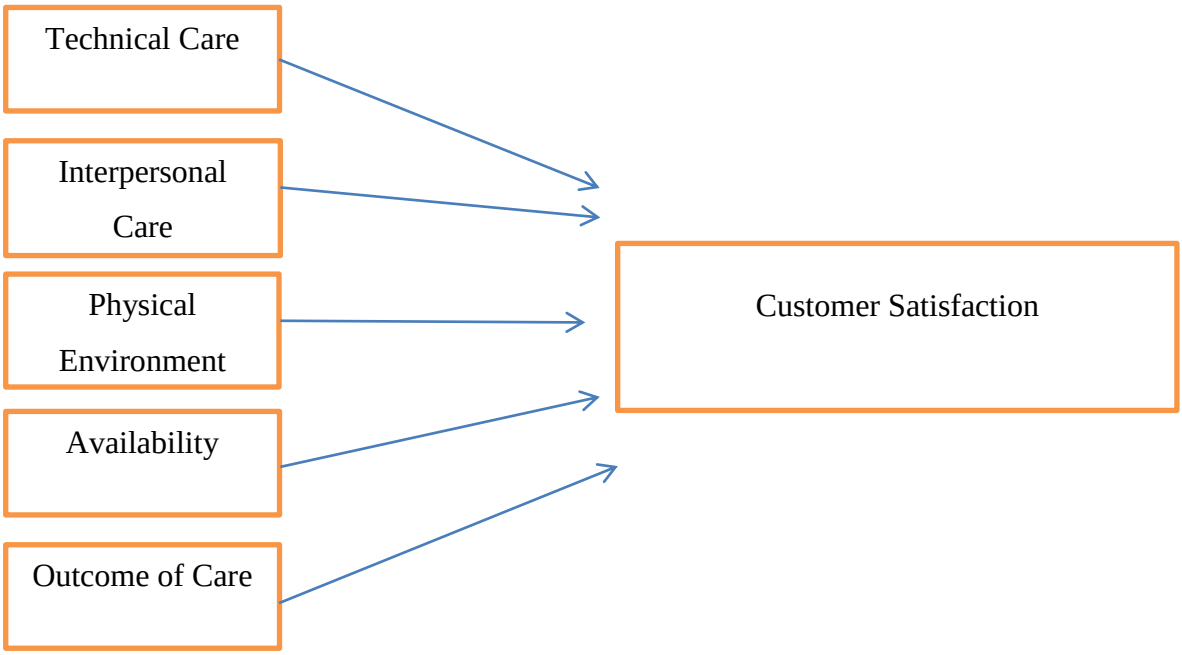
2.4 Conceptual Framework

Numerous research evaluating customer impression have employed the traditional Donabedian paradigm, which divides care aspects into structure, procedure, and result. The primary topics of predictors of happiness across the five categories of TC, IC, PE, AV, and OC are organised in this research using the Donabedian framework. This conceptual structure is supported by the Expectancy Disconfirmation Theory (EDT), one of the well-known marketing theories that has received a great deal of study attention (Yen & Lu, 2008).

The idea of disconfirmation recognised that one of the most effective ways to describe CS is through the gap that arises between expectations, wants, and observed performance. According to this hypothesis, the degree of pleasure is controlled by the disconfirmation between perceived performance and expectations and its direction (positive or negative), intensity, and magnitude. Five major variables that affect CS are included in the framework: TC, IC, AV, PE, and OC.

TC is a term used to describe the standard of medical care given to patients, including the precision of the diagnosis, the suitability of the therapy, and efficient drug administration. IC refers to the degree of compassion, respect, and consumer input in decision-making that occurs between doctors and patients. AV stands for accessibility, which includes how simple it is to make appointments and how quickly medical treatment is given. PE refers to the hospital's cleanliness, comfort, and safety, whereas AV refers to things like the quantity of doctors and medical apparatus. The efficacy of medical care and the general health outcomes attained by clients are measured by OC.

The outcome variable CS, which is impacted by the factors of TC, IC, AV, PE, and OC, is also included in the framework. Each factor can have a positive or negative effect on CS, as shown by the arrows in the diagram that show the direction of influence. In conclusion, the conceptual framework highlights the intricate linkages between these variables and their impact on CS overall by visualising the main drivers of CS in public hospitals.



Source: Donabedian framework

Figure 1 Conceptual framework of dependent and controlled variables

Customer Satisfaction is a crucial component of healthcare administration, and public hospitals must prioritise raising the calibre of their services in order to guarantee high levels of CS. The purpose of this study was to investigate the causes of CS in St. Paul Hospital in Ethiopia. I identified the gaps in the current knowledge by a thorough literature assessment and developed research questions to direct our investigation. The SERVQUAL model, which offers a helpful framework for analysing the components that lead to CS, served as the theoretical foundation for the study.

The study used a method of quantitative investigation and used an organised survey for gathering information. The results of this research wasadd to the body of knowledge on CS in public hospitals and have an impact on Ethiopia's healthcare administration and policy-making.

2.5 Research Hypothesis

Based on a survey of the literature, the following hypotheses describe the breadth and depth of the study.

H1. In St, Paul Hospital, there is a positive and significant relationship between Technical Care and Customer Satisfaction.

H2. In St, Paul Hospital, there is a positive and significant relationship between Interpersonal Care and Customer Satisfaction.

H3: In St, Paul Hospital, there is a positive and significant relationship between Availability and Customer Satisfaction.

H4: In St, Paul Hospital, there is a positive and significant relationship between Physical Environment and Customer Satisfaction.

H5. In St, Paul Hospital, there is a positive and significant relationship between Outcome of Care and Customer Satisfaction.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

The primary goal of this chapter is to provide an overview of the research methodology and design that were used to analyse the study topic. Because the optimum completion of the research in this stage depends on gathering the correct data from the right source using the right technique and then analysing it using the right analytical tool, the approaches and processes indicated below are essential.

3.2 Research Design

Quantitative cross-sectional survey design is used for the research design for the study on the factors that influence CS in public hospitals. Data from a sample of the target population was collected at one point in time using this design. Customers who had visited Ethiopia's public hospitals, particularly St. Paul Hospital, comprised the sample in this instance.

The study used a structured questionnaire to gather information on the factors that influence CS which are TC, IC, AV, PE, and OC. A sample of clients who had visited Ethiopia's St. Paul Hospital were given the survey. A technique/ formula was used for determining the sample size based on population size, margin of error, and confidence level.

The Cochran formula was used to calculate the sample size. The outpatients who satisfied the inclusion requirements were selected randomly. The statistical program SPSS v20 was used to analyse the survey data. The distribution of survey responses and the demographic makeup of the sample were described using descriptive statistics, such as frequencies and percentages.

Regression analysis and other inferential statistics were used to evaluate the hypotheses and find reasons of CS. The study procedure took ethical factors into account. Customers listed below are an exemption for data collection: Customers who are in excruciating

agony, expectant mothers, customers who are under 18 years old, over 65 years old, and those who are unable to communicate.

3.3 Study variables

3.3.1 Dependent variable

The result of interest and observed variable in the study is Customer Satisfaction, which is impacted by the controlled variables. Demographic characteristics including age, gender, education, and customer type operate as moderating variables in the research. A Likert scale was used to measure CS and determine the amount of satisfaction that respondents reported. Extremely unhappy, unhappy, neutral, happy, and extremely happy were the available alternatives.

3.3.2 Independent variables

The study's controlled variables are the factors that influence CS, named TC, IC, AV, PE, and OC.

TC provides information on the knowledge, skills, and ethics of healthcare workers. IC refers to the degree of concern for clients demonstrated by observation, involvement, sharing, active listening, companionship, complementing, consoling, wishing, forgiving, and accepting. PE refers to the pleasantness of the environment, room comfort, bedding, cleanliness, noise level, temperature convenience, food service, lavatory comfort, clarity of signs and instructions, and the layout of equipment and services. AV refers to enough numbers of doctors, nurses, facilities, and other resources. OC measures how effective the treatment was in enhancing the patient's health state or medical condition.

3.4 Source of data

Data were taken from both of the major sources. Guardians, who come with the customers/patients to assist them or who are helping customers that are following care in the hospital and outpatients who are receiving care at St. Paul Hospital are the major source of the information obtained. They are regarded as reliable information sources since they have firsthand experience with the services obtained. An inquiry was made to the clients using a questionnaire in English and Amharic language version.

3.5 Measurement

The measurement aims to assess the predictors of CS on public hospitals, specifically on St. Paul Hospital in Ethiopia. The following are the measurement components for each determinant;

1 TC: The measurement of TC was assessed through the diagnosis accuracy, information provided about treatment plan, nursing care and professionals' ethics. The researcher used these measurements to measure the TC which is one of the controlled variable.

2 IC: The measurement of IC was assessed through patient-staff interactions. The researcher used a survey questionnaire to gather data on how customers perceive the level of friendliness, empathy, and communication skills of the hospital staff.

3 AV: The measurement of AV was assessed through the hospital's resources such as the number of staff AV, and accessibility of healthcare services during emergency, AV of medical equipments, ease of scheduling, Waiting period to see the doctor. The researcher used a survey questionnaire to gather data on how customers perceive the AV of hospital resources.

4 PE: The measurement of the PE was assessed through the hospital's cleanliness, safety, direction easiness, appearance and comfort level. The researcher used questionnaire to gather the information regarding PE.

5 OC: The measurement of the OC was assessed through the customer's perception of the improvement in their health condition after receiving treatment from the hospital. The researcher used a survey questionnaire to gather data on how customers perceive the effectiveness of the hospital's medical treatment.

6. CS: The measurement of the CS was assessed through the customers overall happiness, whether they recommend the hospital to others or if they will return to the hospital again.

3.6 Data Collection Procedures

Questionnaires were used to collect primary data. A questionnaire was selected as the method of data collection due to the rapid feedback and direct replies from respondents that can be acquired fast and simply. The questionnaire consists of three sections. The first section consists of demographic information while the second section consists of information about the controlled variable and the third section consists of information about the observed variable**.** The question was written in both Amharic and English. Customers who had gotten medical attention at St. Paul Hospital and their guardians were given the questionnaire. The purpose of the surveys was to gather data on TC, IC, AV, PE, OC, and CS.

3.7 Sample Size Determination

The population consisted of outpatients receiving care at St. Paul Hospital as well as the customer's guardians. As a result, the number of samples needed for this situation was determined by computing the smallest number of samples necessary for accuracy in estimating amounts while taking into account the standard normal deviation set at a level of confidence of 95% is (1.96), the percentage of respondents who chose a choice or response (50%=0.5), and the confidence interval (0.05=±5). Up until the necessary sample was attained, samples were chosen at random from among the ones that met the requirements. The equation "$n_0= Z^2pq/e^2$"

'e'- The intended degree of accuracy (or margin of error) is expressed.

'P' - The estimated percentage of the population that possesses the relevant trait.

'q' - 1-p.

A Z table contains the z value.

A sample size of 384 consumers was used since a Z value of 1.96 using normal tables at a 95% confidence level was obtained. Given a desired degree of accuracy, a desired level of confidence, and an anticipated fraction of the attribute present in the population, the Cochran formula enables one to determine the appropriate sample size. Cochran's formula is thought to be particularly useful in scenarios with big populations. A sample

of any given size provides more information about a smaller population than a bigger one, hence there is a 'correction' via which the number supplied by Cochran's formula can be decreased if the overall population is relatively small (Kotrlik et al., 2001).

3.8 Data Analysis

Following collection and processing, the data was further modified in accordance with the study's goal to search for patterns and correlations between variables, and appropriate analysis and interpretation were carried out. Data management and statistical analysis were performed using SPSS version 20 (Statistical Package for Social Sciences v20). A 5-point Likert scale containing the expressions 1- extremely unhappy, 2- unhappy, and 3- neutral, 4- happy, 5, extremely satisfied was used to assess CS with the healthcare service. The properties of the data that were gathered, such as the mean, standard deviation, and frequency distribution of the variables, were summarised and described using descriptive statistics.

The associations between the controlled variables (TC, IC, AV, PE, and OC) and the observed variable (CS) were examined using inferential statistics in order to assess the study hypotheses. The main inferential statistical method is utilized to ascertain the link between the independent and observed variables was multiple regression analysis. The regression model assisted in identifying the CS drivers that significantly affect customers' OS in a public healthcare scenario. Other inferential statistical tests, including Durbin Watson, F test, ANOVA, Beta coefficient, and R square, were also employed to analyze categorical data, compare means, and look for significant differences between groups. Statistical tool SPSS v20 was used for the data analysis.

3.9 Reliability and validity

3.9.1 Reliability

In terms of research, consistency, stability, and dependability of measurements or research tools are referred to as reliability. It is essential to guarantee the quality and accuracy of the data gathered. It describes how reliable or constant the results of an instrument for study are throughout time, across various things, or between various raters. It shows if the measuring procedure is reliable and consistent, guaranteeing that the

findings acquired are not only a product of measurement mistakes or random changes (Creswell, 2014).

Cronbach's alpha coefficient, which assesses how closely items on a scale or questionnaire are related to or consistent with one another, is the most widely used metric of internal consistency dependability. Cronbach's alpha levels above 0.70 are often regarded as satisfactory, with higher values indicating stronger internal consistency dependability (Nunnally& Bernstein, 1994).

3.9.2 Validity

The degree to which a research or assessment correctly assesses what it seeks to measure is referred to as validity. It evaluates the degree to which a study's findings are reliable and significant. Here is an illustration of a reference that offers a summary of studies on validity. The extent to which a research correctly measures or represents the idea or construct it aims to evaluate is referred to as its validity. It evaluates the degree to which the study yields reliable conclusions that may be extrapolated or applied to a broader population or the intended construct (Kopcha, 2014).

3.10 Ethical Issues of the study

The following ethical issues were taken into account:

3.10.1 Confidentiality

The guarantee that their responses would be kept private and confidential was offered to the respondents. Confidentiality is maintained of this information, which is only used for educational reasons.

CHAPTER FOUR
RESULT AND DISCUSSION

4.1 Introduction

This part includes the findings from the research as well as the data processing, examination, evaluation, and inspection of all the consumer data gathered in St. Paul Hospital. A demographic analysis of the participants is the primary portion. In the section that follows, descriptive, correlational, and regression analysis are performed and results from them are captured. The next section interprets the data results which is the discussion part. The data was analysed using social science statistical software (IBM SPSS version 20).

4.2 Respondent rate

A questionnaire was used to poll customers. 390 customers in all were reached, although 6 gave inaccurate answers. 384 of the participant answered the questionnaire as a result. The overall response rate is roughly 98.5% after incorrect replies are subtracted.

4.3 Demographic Information

The demographic information included in this study includes age, gender, educational attainment, and client type. Data on the frequency of demographic factors are shown in the following table.

Table 1 Demographic information

	Demographic Characterstics	Frequency	Percentage
1	Age		
	Below 20	55	14.3%
	21-30	65	16.9%
	31-40	123	32%
	41-50	88	22.9%
	Above 51	53	13.8%
2	Gender		
	Male	211	54.9%
	Female	173	45.1%
3	Education Level		
	None	156	40.6%
	Under 12	69	18.0%
	Under graduated	159	41.4%
4	Customer Type		
	Patient	210	54.7%
	Guardian	174	45.3%

Source; questionnaire result

According to the demographic data, respondents between the ages of 31 and 40 made up the biggest group, totaling 123 (32%). The second-highest number, 88 (21.9%), was represented by individuals aged 41 to 50. With a total of 65 (16.9%), the age group from 21 to 30 is the third biggest. The next largest group of participants, with a total of 55 (14.3), are under 20-year-olds. The age group above 51, which is 53 (13.8%), is the youngest. This suggests that the majority of participants are adults. According to this, the participants are primarily adults. 211 (54.9%) of 384 participants were men and 173 (45.1%) women participated in the study. The majority of participants are fairly educated, as seen by the fact that degree education accounts for 159 (41.4%) of participation. There

were more patients than guardians among 384 participants the 210 (54.7%) are patients and 174 (45.3%) are guardian.

4.4 Reliability Test

Cronbach's alpha coefficient, which assesses how closely items on a scale or questionnaire are related to or consistent with one another, is the most widely used metric of internal consistency dependability. Cronbach's alpha levels above 0.70 are often regarded as satisfactory, with higher values indicating stronger internal consistency dependability (Nunnally& Bernstein, 1994).

Table 2 Reliability result

Cronbach's Alpha	No of items
0.863	**26**

The Cronbach's Alpha is 0.863, which is larger than 0.70, indicating that the survey is reliable.

4.5 Descriptive analysis

On a five-point Likert scale, where 1 represents being extremely dissatisfied and 5 represents being extremely satisfied, St. Paul Hospital's CS rating is calculated. The purpose of descriptive statistics is to shed light on the characteristics, distribution, and organisation of data using measures in numerical data and visual representations. Each variable is taken into account independently in order to comprehend the satisfaction level. The observed variable's total CS is represented by 3 variables, while each controlled variable is represented by 23 components. The average score is then generated using a scoring system that is established by the criteria based on the findings of the descriptive statistics of each statement of controlled variables.

Table 3 Descriptive statistic of variables

	N	Minimum	Maximum	Mean	Std. Deviation
TC	384	2.50	5.00	3.8997	.57701
IC	384	3.00	4.83	3.8537	.37754
AV	384	3.00	5.00	3.8031	.40877
PE	384	2.60	5.00	3.8422	.47998
OC	384	2.00	5.00	3.8872	.53915
OS	384	2.67	4.67	3.7561	.50336
ValidN (listwise)	384				

The table shows that each variable's mean is high. This shows that the majority of these variables' inquiries received satisfactory answers. The mean of Technical Care(TC) is the highest which shows that it gets the highest satisfactory answer and Overall Satisfaction has relatively the lowest mean showing that it gets relatively lowest satisfactory answer.

4.6 Correlation analysis

A statistical method called correlation analysis is used to quantify the magnitude and direction of the association between two or more variables. It determines a correlation coefficient, like Pearson's, which offers a numerical assessment of the strength of a link between variables. While correlations that are negative show an inverse link between factors those that are positive show a direct association. The correlation coefficient is between zero and one. A high correlation coefficient denotes a strong connection, which means that as one variable rises, the other one is likely to follow suit. A negative correlation coefficient, on the other hand, denotes an inverse link, wherein when one variable rises, the other tends to fall.

The Pearson's correlation coefficient, which is calculated during correlation analysis, assesses the degree and direction of the link between factors. Values around 0 suggest a weak or nonexistent linear connection. The statistical measure, which is often employed,

assesses the magnitude and direction of the linear connection between two continuous variables (Cohen et al., 2013).

- **The relationship between TC and Overall CS**

Table 4 Pearson correlation matrix between TC and OS

		TC	OS
TC	Pearson Correlation	1	.850**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.850**	1
	Sig. (2-tailed)	.000	
	N	384	384

The result shows that Pearson correlation between TC and OS is .850 which is positive indicating that TC and OS have a positive relationship and correlation is significant at the 0.01 level.

- **The relationship between IC and Overall CS**

Table 5 Pearson correlation matrix between IC and OS

		IC	OS
IC	Pearson Correlation	1	.683**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.683**	1
	Sig. (2-tailed)	.000	
	N	384	384

The result shows that Pearson correlation between IC and OS is .683 which is positive indicating that IC and OS have positive relationship and correlation is significant at the 0.01 level.

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- **The relationship between AV and Overall CS**

Table 6 Pearson correlation matrix between AV and OS

		AV	OS
AV	Pearson Correlation	1	.674**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.674**	1
	Sig. (2-tailed)	.000	
	N	384	384

The result shows that Pearson correlation between AV and OS is .674 which is positive indicating that AV and OS positive relationship and correlation is significant at the 0.01 level.

- **The relationship between PE and Overall CS**

Table 7 Pearson correlation matrix between PE and OS

		PE	OS
PE	Pearson Correlation	1	.626**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.626**	1
	Sig. (2-tailed)	.000	
	N	384	384

The result shows that Pearson correlation between PE and OS is .626 which is positive indicating that PE and OS have positive relationship and correlation is significant at the 0.01 level.

- **The relationship between OC and Overall CS**

Table 8 Pearson correlation matrix between OC and OS

		OC	OS
OC	Pearson Correlation	1	.350**
	Sig. (2-tailed)		.001
	N	384	384
OS	Pearson Correlation	.350**	1
	Sig. (2-tailed)	.001	
	N	384	384

The result shows that Pearson correlation between OC and OS is .350 which is positive indicating that OC and OS have weak positive relationship correlation is significant at the 0.01 level.

4.7 Multiple Regression analysis

Multiple regression is a statistical method for analysing the connection between two or more controlled factors and an observed variable. It enables forecasting and an understanding of the relationship between variations in the controlled variables and variations in the observed variable. While accounting for the impact of other factors in the model, multiple regression calculates the distinct contribution of each controlled variable (Tabachnick & Fidell, 2019).

Prediction and comprehension of the relationship between changes in the controlled variables and changes in the observed variable are made possible by multiple regression. It also mentions multiple regression, which calculates each controlled variable's unique contribution while also taking other factors into consideration. In multiple regression analysis, assumptions are essential since they guarantee the accuracy and dependability of

the outcomes. The typical multiple regression assumptions are listed below (Hair et al., 2014).

4.7.1 Sample size

According to Ullah (2012) The first presumption looks at whether the sample is sufficient enough to do factor analysis. To evaluate the material's compatibility, testing method The KaiserMeyer-Olkin (KMO) was utilised. A good sample is one in which the KMO result surpasses the minimal standard value of 0.6.

Table 9 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.849
Bartlett's Test of Sphericity	Approx. Chi-Square	1280.550
	df	15
	Sig.	.000

The result shows KMO value of .849 which is greater than .6, therefore it indicates the sample is adequate and this is significant at 1% significant level.

4.7.2 Normality Test

It is frequently crucial to evaluate the assumption of normalcy, which stipulates that the data should follow a normal distribution, while doing statistical studies. To evaluate normality, a variety of statistical tests and graphical techniques are available. Many statistical techniques frequently demand the assumption of normalcy. The validity and precision of statistical results may be damaged by violating the assumption of normalcy, which can also introduce biases and make conclusions inaccurate. Researchers can assure the proper use of statistical techniques and increase the reliability of their studies by performing normality tests and verifying that the data fulfil the assumption of normality (Pallant, 2016).

A statistical metric called skewness indicates the asymmetry or lack of symmetry in a data distribution. It measures how much the data depart from a distribution that is exactly symmetrical. Skewness is a significant statistic since it sheds light on the properties and

structure of the data distribution. There are three potential values for skewness. The tail on the right side of a positively skewed distribution is longer or more dispersed than the tail on the left. There are fewer extreme high values and more data points that are centred on lower values. The tail on the left is longer or more dispersed than the tail on the right in a negatively skewed distribution. When the skewness value is 0, the distribution is said to be fully symmetrical or regularly distributed. Such a distribution has equal tail lengths and equally scattered data on either side of the mean. (Doane et al., 2011). Kurtosis and skewness distribution criterion most frequently accepted value is from -2 to +2 (Field , 2013).

Table 10 Skewness and Kurtosis Test

		TC	IC	AV	PE	OC	OS
N	Valid	384	384	384	384	384	384
	Missing	0	0	0	0	0	0
Skewness		-.476	-.154	.397	-.182	-.519	.095
Std. Error of Skewness		.125	.125	125	.125	.125	.125
Kurtosis		-.687	-.299	-.220	-.599	.393	-.781
Std. Error of Kurtosis		.248	.248	.248	.248	.248	.248

The skewness and kurtosis values for all the factors are shown in the table above to vary from (-2 to +2). This demonstrates that all of the variables' skewness and kurtosis values fall within the allowed range for normalcy. The second presumption is accurate since all of the variables have a regular distribution.

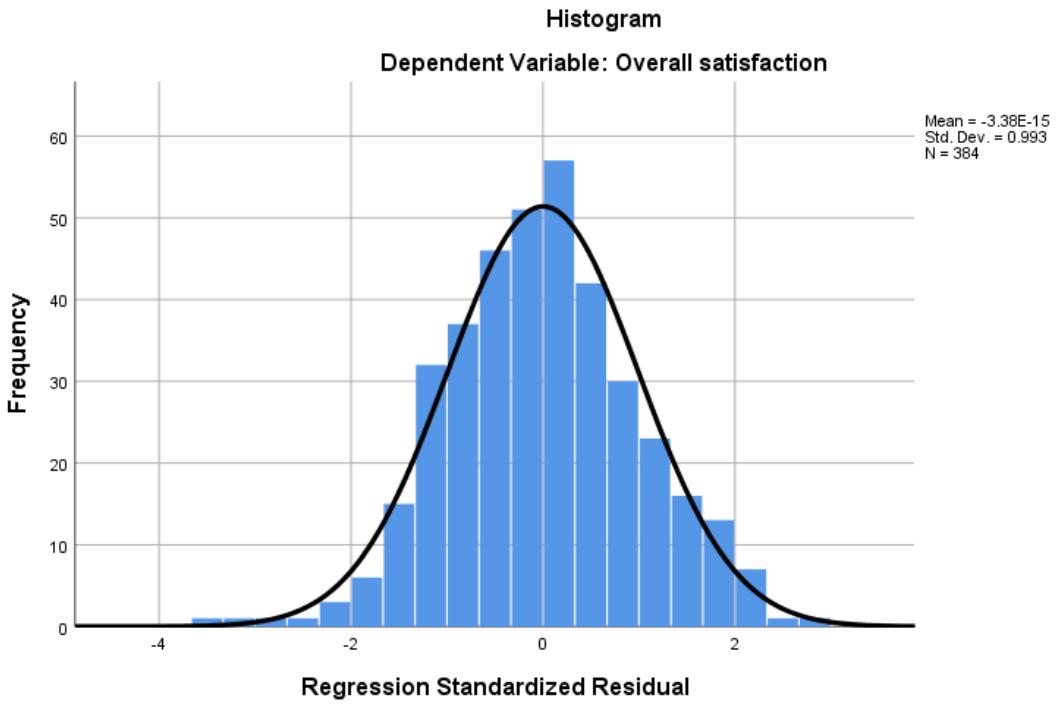

Figure 2 Normality Graph

4.7.3 Linearity Test

According to this presumption, each controlled variable and the observed variable have a linear connection. It is presumed that the observed variable and the controlled variables have a linear relationship. In other words, while holding other factors constant, the variation in the observed variable is precisely proportional to the change in each controlled variable. All controlled variables are positively associated with the observed variable in the correlation analysis, which is used to evaluate linearity. As a consequence, there was a linear connection between the controlled and observed variables (Fox, 2008).

4.7.4 Homoscedasticity Test

Homoscedasticity is the state in which the residuals' fluctuations (the discrepancies between actual values and expected values) is constant at all levels of the controlled variables. The spread of the residuals is assumed to be constant if the residuals' fluctuation is consistent over the range of the controlled variables. (Field, 2013). Residual plots or statistical tests like the Breusch-Pagan or White test can be used to assess

heteroscedasticity. Observing the distribution of the data the Homescediasticity test assumption is fulfilled. The plot is shown in Appendex II.

4.7.5 Independence Test

The statistical approach known as independence testing is used to look at the connection between two category variables. It establishes if the variables are significantly associated or dependent on one another. This analysis can shed light on the underlying mechanisms or variables impacting the variables of interest and is essential for comprehending the nature of the connection.

A statistically significant link or dependence between two category variables is determined using this test. The residuals of a regression model's residuals can be checked for the existence of autocorrelation using the Durbin-Watson statistic. The assumption of independence between observations is violated when autocorrelation occurs, which happens when the residuals from a regression model are associated with one another. The Durbin Watson has a range of 0 to 4.

The residuals are independent when the value is 2, there is no autocorrelation when the value is between 0 and 2, and there is a negative autocorrelation when the value is between 2 and 4. It is frequently seen as ideal to have a value near 2 (between 1.5 and 2.5), which denotes little or no autocorrelation. (Durbin & Watson, 1971). The Durbin-Watson number in the table, 2.152, suggests that there is no autocorrelation between the controlled factors.

Table 11 Independence test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.891[a]	.795	.792	.22957	2.152

4.7.6 Non-Multicollinearity Test

To determine the presence and degree of multicollinearity among the controlled variables in a regression analysis, multicollinearity testing is utilised. Multicollinearity, which can

result in unstable coefficient estimates and inaccurate interpretations of the regression model, happens when there is a high correlation or linear relationship between two or more controllable variables.

Testing for multicollinearity determines how closely the controlled variables in a regression model are correlated or related linearly. It aids in locating circumstances that could include significant multicollinearity. If a correlation matrix reveals correlations of 0.90 or greater among the controlled variables, there may be a multi-collinearity problem (Kutner et al., 2004).

Table 12 Correlation

		TC	IC	AV	PE	OC	OS
TC	Pearson Correlation	1	.621**	.584**	.685**	.334**	.850**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	384	384	384	384	384	384
IC	Pearson Correlation	.621**	1	.578**	.453**	.201**	.683**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	384	384	384	384	384	384
AV	Pearson Correlation	.584**	.578**	1	.441**	.195**	.674**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	384	384	384	384	384	384
PE	Pearson Correlation	.685**	.453**	.441**	1	.263**	.626**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	384	384	384	384	384	384
OC	Pearson Correlation	.334**	.201**	.195**	.263**	1	.350**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	384	384	384	384	384	384

OS	Pearson Correlation	.850**	.683**	.674**	.626**	.350**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	384	384	384	384	384	384

This assumption is not violated since there are no correlation coefficients in the table that are bigger than 0.9, which shows that multicollinearity does not exist.

4.7.7 Multiple linear regression analysis

The effects of the controlled factor on the observed factor must be predicted and understood using multiple linear regression analysis. It offers a useful framework for understanding intricate linkages and formulating predictions based on actual evidence (Tabachnick & Fidell, 2013). It is a statistical method for simulating the connection between two or more controlled variables and an observed variable. Making predictions based on the model enables researchers to comprehend how changes in the observed variable are related to changes in the controlled variables.

In multiple regression analysis, the significance level and confidence interval are key statistical measures used to assess the relationships between variables and determine the precision of the derived coefficients. The significance level in multiple regression is a predetermined cutoff used to determine if a controlled variable has a statistically significant impact on the observed variable.

The possibility of obtaining the anticipated coefficient (or a more extreme amount) is reflected by the null hypothesis, if it is true. When a predictor variable's p-value is less than 0.05 and the significance threshold is set at 0.05 (5%), it is said to be statistically significant and to have a significant impact on the observed variable (Montgomery et al., 2021). A confidence interval shows the range of values that the actual population parameter is anticipated to fall within. In order to establish the potential ranges of values for the predictor variable coefficients, confidence intervals are widely utilised in multiple regression.

We would expect the true value of the coefficient to fall inside the 95% confidence interval 95% of the time if the regression analysis were run many times. A lower confidence interval indicates a more accurate estimate (Field et al., 2012). With a 95% confidence interval, a significance threshold of 0.05 was used.

Table 13 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.891[a]	.795	.792	.22957	2.152

R gives the various correlation coefficients between the variables a number between 0 and 1. A higher score indicates a more significant link. The outcome reveals R to be 0.891, indicating that the linear connection between the four controlled variables accurately predicts the observed variable.

R square, measures how much variation in the observed variable can be explained by the controllable variables in a regression model. It shows how closely the model matches the data. R-squared values range from 0 to 1, and higher values indicate greater suitability. A score of 1 means the model correctly predicts the variation in the observed variable, while a score of 0 means it is unable to account for any of the changes. If R is closer to 1, it works (Hair et al., 2019). The outcome displays an R square of 0.795, indicating that the linear combination of the controlled variables accounts for 79.5% of the variation in the observed variable (CS), with a standard error of 0.23229.

The R-squared value in multiple regression analysis is updated to become R-squared adjusted.It is created to take into consideration the number of controllable variables in the model and offer a more accurate measurement of the variance explained by the model as a whole.This problem is addressed by penalising the inclusion of unnecessary variables in adjusted R-squared.

It penalises the inclusion of extraneous variables that do not considerably improve the mo

del's capacity for prediction.By deducting a penalty term that rises with the number of pre dictors and falls with the sample size, R-squared adjusted modifies the R-squared value. The difference for the final model is negligible; it is (0.795-0.792 = 0.003), or around 0.3%, between R square and Adjusted R square. There would be around 0.3% less variation in the result if the model came from the population as opposed to a sample.

ANOVA

A statistical technique called ANOVA, or Analysis of Variance, is used to examine how differences among several groups or categories in a dataset vary. ANOVA is frequently used in the context of multiregression analysis to evaluate the overall relevance of the regression model as well as the individual importance of the predictor variables. Understanding the link between several controllable factors (predictor variables) and an observed variable (the variable I wish to predict or explain) is the aim of multiregression analysis. ANOVA aids in establishing if the regression model as a whole significantly outperforms a baseline model or whether the changes that have been found may just be the result of chance. The overall variance in the observed variable is represented by the total sum of squares.

The total of squares is divided by the degrees of freedom to produce the mean squares. The mean square for regression is divided by the mean square for residuals to calculate F statics. ANOVA is useful in assessing how well the regression model fits overall. The model is thought to be fit if P is less than 0.05. On the other hand, if the value of F is large, there is a possibility that the null Hypothesis was rejected. The null hypothesis in this situation is that CS is not significantly affected by the controlled variables. At a.000 level of significance, F is 292.673, indicating that the regression model is fit and the null hypothesis is disproved.

Table 14 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.120	15.424	292.673	.000[b]
	Residual	19.921	.053		
	Total	97.041			

Beta Coefficient

A standardised Beta coefficient is used to measure how strongly each controlled variable affects the observed variable and may be used to demonstrate the relevance of the controlled variable in predicting the observed variable. Beta is used to describe the correlation coefficient for the average change in the observed variable for a unit change in the controlled variable. It measures the relationship between the independent and observed variables in a linear regression model. A positive coefficient indicates a positive relationship between the independent and observed variables. Any relationship between the independent and observed variables is completely absent when the coefficient is negative. How tightly the variables are connected is shown by the magnitude of the coefficient.

Table 15 Beta coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.506	.151		-3.347	.001
	TC	.488	.034	.559	14.535	.000
	IC	.236	.042	.177	5.599	.000
	AV	.256	.038	.208	6.812	.000
	AV	.256	.038	.208	6.812	.000
	PE	.053	.034	.051	1.584	.114

The equation for the null hypothesis was as follow;

OS = -.506 + .488 TC +. 236 IC + .256 AV + .053 PE + .069 OC.

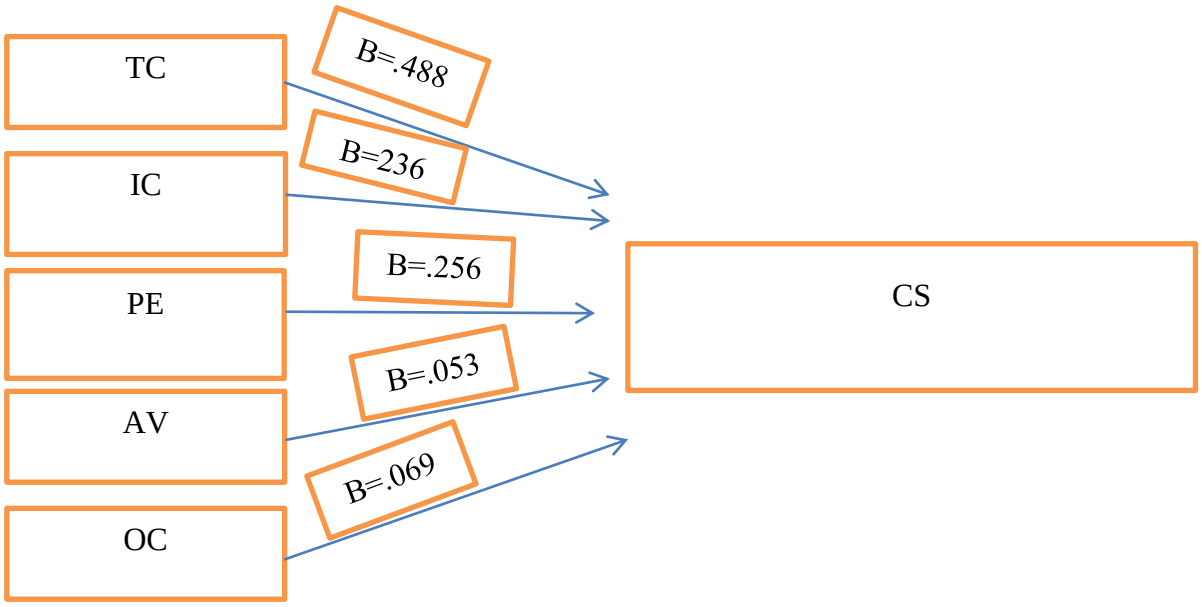

Figure 3 Result of multiple regression

The following hypotheses, based on a review of the literature, provide the scope and depth of the study.

H1. There is a positive and significant relationship between TC and CS in public hospitals.

The outcome demonstrates this, with an intercept of -.506. This indicates that the value of CS is -506 with a standard error of.151 when the other variables—the controlled variables—are set to zero.

The TC and CS results show that, on average, when maintaining other components (IC, AV, PE, and OC) constant, CS rises by 0.488 units for every unit increase in TC. This

connection is valid at the 1% significance level with a standard error of.034. This demonstrates that TC and CS have a positive and significant relationship, meaning that when TC rises, CS follows suit. We reject the null hypothesis at the 1% level of significance since the t stat value for TC is 14.535 and significance (p-value) is zero.

H2. There is a positive and significant relationship between IC and CS in public hospitals.

The result indicates that for every unit increase of IC, CS increases by 0.236 units on average holding other factors constant (TC, AV, PE and Outcome care quality) and this relationship is true at 1% significance level which means it is also significant at 5% with a standard error of .042. This shows as that IC is positively related to CS which means that as IC increases CS also increases. The t stat value for IC is 5.599 and significance (p-value) is zero, thus we reject the null hypothesis at 1% significance level.

H3. There is a positive and significant relationship between AV and CS in public hospitals.

The result indicates that for every unit increase of AV, CS increases by 0.256 units on average holding other factors constant (TC, IC, PE and Outcome care quality) and this relationship is true at 1% significance level which means it is also significant at 5% with a standard error of .038. This shows as that TC is positively related to CS which means that as AV increases CS also increases. The t stat value for AV is 6.812 and significance (p-value) is zero, thus we reject the null hypothesis at 1% significance level.

H4. There is a positive and significant relationship between PE and CS in public hospitals.

The result indicates that for every unit increase of PE, CS increases by 0.53 units on average holding other factors constant (TC, IC, AV, and Outcome care quality) and this relationship is not true at 1% significance level, it is also not significant at 5%. This

shows as that PE is not positively related to CS. The t stat value for PE is 1.584 and significance (p-value) is .114, thus we accept the null hypothesis.

H5. There is a positive and significant relationship between OC and CS in public hospitals.

The result indicates that for every unit increase of OC, CS increases by 0.069 units on average holding other factors constant (TC, IC, PE and Outcome care quality) and this relationship is true at 1% significance level which means it is also significant at 5% with a standard error of .023. This shows as that OC is positively related to CS which means that as OC increases CS also increases. The t stat value for AV is 3.005 and significance (p-value) is zero, thus we reject the null hypothesis at 1% significance level.

4.8 Discussion of the result

The purpose of this study is to investigate how AV, PE, TC, IC, and TC all interacted. This section covers the study's key findings and compares them to those of similar earlier studies.

Information was gathered via a survey questionnaire. The intended audience for the study is St. Paul Hospital's clients. The purpose of the questionnaire's first section is to gather data on the respondents' demographic characteristics. According to the information gathered, the majority of respondents were male adults between the ages of 31 and 40. They were also found to be individuals who were reasonably well-off and had greater rates of treatment compliance. The results of the descriptive analysis are shown in the table above, and the highest value for the TC category—3.8997—indicates that consumers are satisfied with the service. Data on the TC, IC, AV, PE, and treatment outcome components were to be gathered in the second section of the questionnaire. In the third section, queries pertaining to the observed variable, CS, were posed.

The output of the correlation analysis reveals a substantial and positive link between the observed variable (OS) and the controlled variables (TC, IC, AV, PE, and outcome care). With TC having the greatest correlation (0.850), IC coming in second with 0.683, AV coming in third with 0.674, PE coming in at 0.626, and OC having the lowest correlation (0.350).

Four controllable variables—TC, IC, AV, and outcome care—were found through multiple regression analysis to have a favourable and substantial impact on CS. The amount of effect varies, though, with TC taking the lead and being followed by IC, AV, then OC. The investigation on PE revealed that it had a somewhat beneficial effect on CS. The results of the study indicate that TC and CS have a favourable and statistically significant association. This conclusion is also supported by earlier investigations.

Fatima et al. (2018) found that TC was a good predictor of CS in Pakistan's public hospitals. It was shown that when patients received higher-quality TC, they were more likely to indicate higher levels of satisfaction with their healthcare experience. Kamenaga et al. (2018) identified that in Japanese public hospitals, TC was a strong predictor of CS.

The results of this study further demonstrate that IC and CS have a strong and advantageous association. According to Kron et al. (2017) , IC has a major impact on CS in Australian public hospitals. Customers who indicated a high degree of IC with their healthcare were also more likely to express a high level of OS, according the study. According to Kandampully et al. (2018), CS in Chinese public hospitals was significantly predicted by IC. Customers who received high-quality IC were more likely to report extreme happiness with their healthcare experience.

The information gathered is consistent with the theory that AV and CS have a positive and substantial association. In Chinese public hospitals, AV was a strong predictor of CS, according to a research by Chang et al. (2021). Customers who believed that the AV of healthcare services was high were more likely to express a high degree of happiness with their healthcare experience, according to the study.

According to the study, the PE hypothesis has a favourable and not significant impact on CS. The results of certain investigations on the connection between PE and CS have been conflicting. For instance, a research by Tan et al. (2018) discovered that while the PE was a significant contributor to CS in Singaporean public hospitals, it was not the most significant contributor. According to the study, there are other significant drivers of CS, including hospital amenities, waiting times, and the standard of medical treatment.

The results of this study further demonstrate that OC and CS have a strong and advantageous association. In public hospitals in China, a research by Mummaneni et al. (2019) discovered that the OC was a reliable indicator of CS. According to the study, clients who experienced better health outcomes as a result of their use of healthcare services were more likely to express a high degree of pleasure with that experience. Similar to this, a research in Ethiopian public hospitals discovered that the OC was a strong predictor of CS. According to the study, patients who experienced good health outcomes after obtaining medical care were more likely to express high levels of satisfaction with their care. Another study Akindele et al. (2018) discovered that in Nigerian public hospitals, the OC was a strong predictor of CS. Customers who reported better health outcomes, such as reduced pain and more mobility, were more likely to express high levels of satisfaction with their healthcare experience, according to the study.

In all, the study's controlled variables explained 79.5% of the variation in consumers' satisfaction (R2 = 0.795). The results of this study also showed that TC is the most crucial element that significantly and favourably affects customer happiness.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATION

The results summary, from which inferences were made and which simply addressed the investigation's main research issues, is covered in this chapter. The study's shortcomings and recommendations for more research were also mentioned. Finally, potential areas of research were looked at.

5.1 Summary

The following summary is derived from the data analysis and discussions. 384 questionnaire were included in the final sample size of the 390 questionnaires distributed.

According to the findings, 14.3% of the respondents are below age 20, 16.9% are between age 21 and 30, 32% of the respondents are between age 31 and 40, 22.9% of the respondents are between age 41 to 50 and 13.8% of the respondents are above age 51.

Regarding the gender, male account for 54.9% and female account for 45.1%. The correlation revealed that the determinants TC, IC, AV, PE and OC are all positively correlated with CS with coefficients of r=0.850, r=0.683, r=0.674, r=0.626 and r=0.350 respectively with 1% significance level. The regression analysis found that TC has the greatest impact (B=0.488), followed by AV (B=0.256), IC (B=0.236), OC (B=0.069) and PE (B=0.053). The TC therefore has the most influence on CS in a positive and meaningful way, whilst the PE has the least impact and a negligible one. The four determinants, TC, IC, AV, and OC, have their null hypotheses rejected, but the null hypothesis for the PE variable is not, indicating that there is no meaningful association between this variable and the observed variable CS.

5.2 Conclusion

This study was done to find out what influences the customer service scores (CS) of patients at St. Paul Hospital. For this, TC, IC, AV, PE, and OC were five controllable variables that were taken into account. At a significance level of 1%, it was discovered that TC was the most important variable to express the CS. The second most significant

variable to express the CS at a significance level of 1%, after TC, was deemed to be AV. At a significance level of 1%, IC became the third variable to effectively reflect the CS, and at a significance level of 5%, OC became the last variable to do so. PE, however, was determined to be not significant at a 5% significance level. Therefore, this finding concludes that the four variables that are TC, IC, AV and OC are found to account for 79.5% of the customers' satisfaction.

5.3 Recommendation

The hospital, St. Paul Hospital and other government hospitals need to work on improving the TC as it is strongly affect CS. It would enhance the overall customer experience which leads to increased customer retention rates, improved healthcare outcomes, and a better reputation for the hospital.

Healthcare providers should work on improving the TC as it help them enhance CS and improve the overall quality of care. Policy makers need to inform policy decisions and regulations that promote customer-centered care and quality improvement in public hospitals by giving more focus on the TC and other determinants as it helps ensure that customers receive high-quality care. Ministry of Health should be working to improve the TC given at different government hospitals to fulfill its objectives.

5.4 Limitation of the study

Studies frequently have limitations, as a result the limitation of this study was that it was only carried out at St. Paul's Hospital, limiting the applicability of the research findings to all Ethiopian hospitals. Additionally, because all conclusions were dependent on the data provided by the respondents, they may be susceptible to potential bias and prejudice on the part of those engaged. Also, because of the time constraints, the researcher was unable to find adequate time for the data collection, which resulted in a small sample size. Because it is challenging to gather data from inpatients due to the complexity of hospital rules and regulations, the study solely included outpatients.

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APPENDIX- I

Addis Ababa University

College of Business and Administration

Masters of Business administration

Research Questionnaire

Dear Respondent

The questionnaire is designed to seek information on the determinants of CS: in case of St. Paul hospital in Partial Fulfillment for masters degree in Business administration. The overall objective of this questionnaire is to gather first-hand information on the aforementioned issue I would like to assure you that the information you are going to provide wasbe exclusively used for academic purpose ,waskept confidential and please don't write your name . Your contribution to this research is very greatly appreciated. Thank you in advance for your cooperation.

Section I: Demographic information:

1. Age:

Below 20 ☐ 21-30 ☐ 31-40 ☐ 41- 50 ☐ Above 50 ☐

2. Gender:

Male ☐ Female ☐

3. Education level:

None ☐ Under grade 12 ☐ Under graduated ☐

4. Customer type

Patient ☐ care giver/guardian ☐

Section II- Determinants of CS(Controlled variable)

The following factors are expected to be determinants of CS. Please fill your level of satisfaction by ticking on the number in the specified box using five point scales.

1- Very unsatisfied, 2- unsatisfied, 3- neutral, 4- satisfied 5- Very satisfied.

	1	2	3	4	5
TC					
TC1. How satisfied are you with the accuracy of the diagnosis provided by the doctor?					
TC2. How satisfied are you with the information provided to you about your treatment plan?					
TC3. How satisfied are you with the quality of nursing care you received during your stay?					
TC4. How satisfied are you with the ethics of the professionals?					
IC					
IC1. How satisfied are you with the friendliness of the staff?					
IC2. How satisfied are you with the amount of time the doctors and nurses spent with you?					
IC3. How satisfied are you with the responsiveness of the staff to your needs?					
IC4. How satisfied are you with the staff making you comfortable?					
IC5. How satisfied are you with the staff's respect for privacy and confidentiality					

IC6. How satisfied are you with the empathy and understanding shown by the healthcare professionals?					
AV					
AV1. How satisfied are you with the ease of scheduling your appointment?					
AV2. How satisfied are you with the waiting time to see a doctor or receive treatment?					
AV 3. How satisfied are you with the AV of medical equipment and supplies?					
AV 4. How satisfied are you with the number of physicians available?					
AV 5. AV of healthcare services during emergency situations					
PE					
PE1. How satisfied are you with the cleanliness of the hospital?					
PE2. How satisfied are you with the comfort of the facilities, such as the waiting area and patient rooms?					
PE3. How satisfied are you with the overall appearance of the hospital?					
PE4. How satisfied are you with the directions easiness for navigation?					
PE5. How satisfied are you with the AV and cleanliness of restroom facilities?					
Outcome of the care					
OC1. How satisfied are you with the results of your treatment?					
OC2. How satisfied are you with the information provided to you about managing your health after leaving the hospital?					
OC3. How satisfied are you with the overall quality of care					

you received at the hospital?					

Section III- Observed variable

	1	2	3	4	5
OS					
OS1 .How do you rate your happiness on the overall service of the hospital?					
OS2. How are you satisfied to recommend this hospital to others?					
OS3. How satisfied are you to return to the hospital for future healthcare needs?					

አዲስ አበባ ዩኒቨርሲቲ

ማስተርስ አፍ ቢዝነስ አድሚንስትሬሽን ዲፓርትመንት

ውድ መጠይቁ የሚደረግላችሁ ተሳታፊዎች

ይህ መጠይቅ የተዘጋጀው ‘‘ቅዱስ ጳውሎስ ሆስፒታል ላይ የደምበኞችን እርካታ የሚገልጹ ነገሮች’’ በሚል ርዕስ በ አዲስ አበባ ዩኒቨርሲቲ ድህረ ምረቃ ዲግሪ ማሟያ የተዘጋጀ ነው። ስለዚህም የተዘጋጀውን መጠይቅ በአግባቡ ተመልክታችሁ እንድትሞሉልኝ በትህትና እጠይቃለሁ:: ይህ የምትሞሉት መጠይቅ ለመማር ማስተማር ተግባር የሚውል እና መረጃው በሚስጥር የሚያዝ ይሆናል:: የምትሰጡት ጥራት ያለው መረጃ ለዚህ ምርምር ከፍተኛ አስተዋፅኦ አለው:: ስም መፃፍ አያስፈልግም:: ለሚያደርጉልን ትብብር በቅድሚያ ከልብ አመሰግናሁ::

ክፍል 1: ጠቅላላ መረጃ መመሪያ።

1. እድሜ:

ከ20 በታን ☐ 21-30 ☐ 31-40 ☐ 41- 50 ☐ ከ51 በላይ ☐

2. ጾታ:

ወንድ ☐ ሴት ☐

3. የትምህርት ደረጃ:

የለም ☐ ከ 12ኛ ከፍል በታች ☐ የዲግሪ ☐

4. የደምበኛው አይነት

ታካሚ ☐ አሳካሚ ☐

ክፍል 2፡ የደምበኞችን እርካታ የሚያሟሉ ነገሮች

ከዚህ በታች ያሉት ዝርዝሮችን በማየት ምርጫዎት ላይ ምልክት በማስቀመጥ ይለፉ።

1- በጣም አልረካሁም, 2- አልረካሁም, 3- ምንም አይሰማኝም, 4- ረክቻለሁ 5- በጣም ረክቻለሁ.

	1	2	3	4	5
የቴክኒክ እንክብካቤ					
TC1. በሚሰጠው የህክምና ምርመራ ምን ያህል ረክተዋል?					
TC2. ህክምናው ከታቀደ ቡሃላ በሚሰጥዎት መረጃ ምን ያህል ረክተዋል?					
TC3. በሚያገኙት የነርስ እንክብካቤ ምን ያህል ረክተዋል?					
TC4. በባለሙያዎቹ ስነምግባር ምን ያህል ረክተዋል?					
የግለሰቦች እንክብካቤ					
IC1. በባለሙያዎቹ ተግባቢነት ምን ያህል ደስተኛ ኖት?					
IC2. ነርሶች ከእርስዎ ጋር በሚያሳልፉት ግዜ ምን ያህል ረክተዋል?					
IC3. ለጠየቁት ጥያቄ ተገቢ ምላሽ በማግኘትዎ ምን ያህል ደስተኛ ኖት?					
IC4. በባለሙያዎቹ ምቾት እንዲያገኙ በሚደረገው ጥረት ምን ያህል ረክተዋል?					
IC5. ሚስጥራችሁን አጠባበቃቸው ላይ ምን ያህል ደስተኛ ኖት?					
IC6. ባለሙያዎቹ ባላቸው የመረዳት አቅም ምን ያህል ደስተኛ ኖት?					
መገኘት					
AV1. በቀጠሮ አሰጣጣቸው ምን ያህል ረክተዋል?					
AV2. በወረፋው እና በመጠበቂያው ጊዜ ምን ያህል ረክተዋል?					
AV 3. ባሉት የህክምና መሳሪያዎች ምን ያህል ደስተኛ ኖት?					
AV 4. ባሉት የባለሙያ ቁጥር ምን ያህል ረክተዋል?					
AV 5. በአደጋ ጊዜ ባለው አገልግሎት ምን ያህል ረክተዋል?					
አካባቢ					
PE1. በሆስፒታሉ ጽዳት ምን ያህል ደስተኛ ኖት?					
PE2. በማረፊያ እና መታከሚያ ክፍሎች ምቾት ምን ያህል ረክተዋል?					
PE3. በአጠቃላይ ባለው የሆስፒታሉ ገጽ ምን ያህል ደስተኛ ኖት?					
PE4. በአቅጣጫ ጠቋዋሚ ሰሌዳዎች ቅለት ምን ያህል ደስተኛ ኖት?					
PE5. በመጸዳጃ ቤቶች ብዛትና ጽዳት ምን ያህል ደስተኛ ኖት?					
የእክብካቤ ውጤት					
OC1. በህክምናው ውጤት ምን ያህል ደስተኛ ኖት?					
OC2. ከህክምናው ቡሃላ በሚሰጦት የጤና አጠባበቅ መረጃ ምን ያህል ደስተኛ ኖት?					

OC3. በአጠቃላይ በነበረው የእንክብካቤ አስጣጥ ሂደት ምን ያህል ደስተኛ ኖት?					

ክፍል 3፡ አጠቃላይ የደምበኛ እርካታ

	1	2	3	4	5
አጠቃላይ የደምበኛ እርካታ					
OS1. አጠቃላይ በሆስፒታሉ ድስተኛ ኖት?					
OS2. ለሌሎች ለመጠቆም ምን ያህል ደስተኛ ኖት?					
OS3. ተመልሶ እዚህ ሆስፒታል ለመምጣት ምን ያህል ደስተኛ ኖት?					

APPENDIX- II

Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Accuracy of diagnostics	384	1	5	3.66	.998
Information provided about treatment plan	384	3	5	3.91	.587
Quality of nursing	384	2	5	4.14	.868
Ethics of Professional	384	2	5	3.88	.769
Valid N (listwise)	384				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Friendliness of the staff	384	3	5	3.92	.566
Amount of time the doctors spend with you	384	1	5	3.85	.977
Responsiveness of staffs to your needs	384	1	5	3.86	.767
Making you comfortable	384	2	5	3.85	.659
Privacy and confidentiality	384	1	5	3.91	.708
Empathy and understanding shown by professionals	384	1	5	3.73	.622
Valid N (listwise)	384				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Ease of Scheduling your appointment	384	1	5	3.91	.771
Waiting time for treatment	384	1	5	3.60	.788
AV of medical equipment and supplies	384	3	5	3.92	.566
Number of Physicians available	384	2	5	3.86	.671
Healthcare service during emergency situation	384	2	5	3.72	.736
Valid N (listwise)	384				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Cleanliness of Hospital	384	1	5	3.61	.707
Comfort of facilities	384	1	5	3.72	.900
Overall appearance of the Hospital	384	2	5	4.04	.891
Direction easiness for navigation	384	3	5	3.92	.566
AV and cleanliness of restrooms	384	1	5	3.92	.955
Valid N (listwise)	384				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Result of treatment	384	1	5	4.04	.784
Information provided about managing your health	384	1	5	3.85	.900
Overall quality of care recieved	384	1	5	3.77	.790
Valid N (listwise)	384				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Happiness of overall service	384	3	5	3.92	.566
Recommending the Hospital to others	384	2	5	3.84	.693
Returning back to the Hospital in the future	384	1	5	3.51	.626
Valid N (listwise)	384				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TC	384	2.50	5.00	3.8997	.57701
IC	384	3.00	4.83	3.8537	.37754
AV	384	3.00	5.00	3.8031	.40877
PE	384	2.60	5.00	3.8422	.47998
OC	384	2.00	5.00	3.8872	.53915
OS	384	2.67	4.67	3.7561	.50336

Valid N (listwise)	384				

correlations

Correlations

		TC	OS
TC	Pearson Correlation	1	.850**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.850**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Correlations

		IC	OS
IC	Pearson Correlation	1	.683**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.683**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

		AV	OS
AV	Pearson Correlation	1	.674**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.674**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Correlations

	PE	OS

PE	Pearson Correlation	1	.626**
	Sig. (2-tailed)		.000
	N	384	384
OS	Pearson Correlation	.626**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Correlations

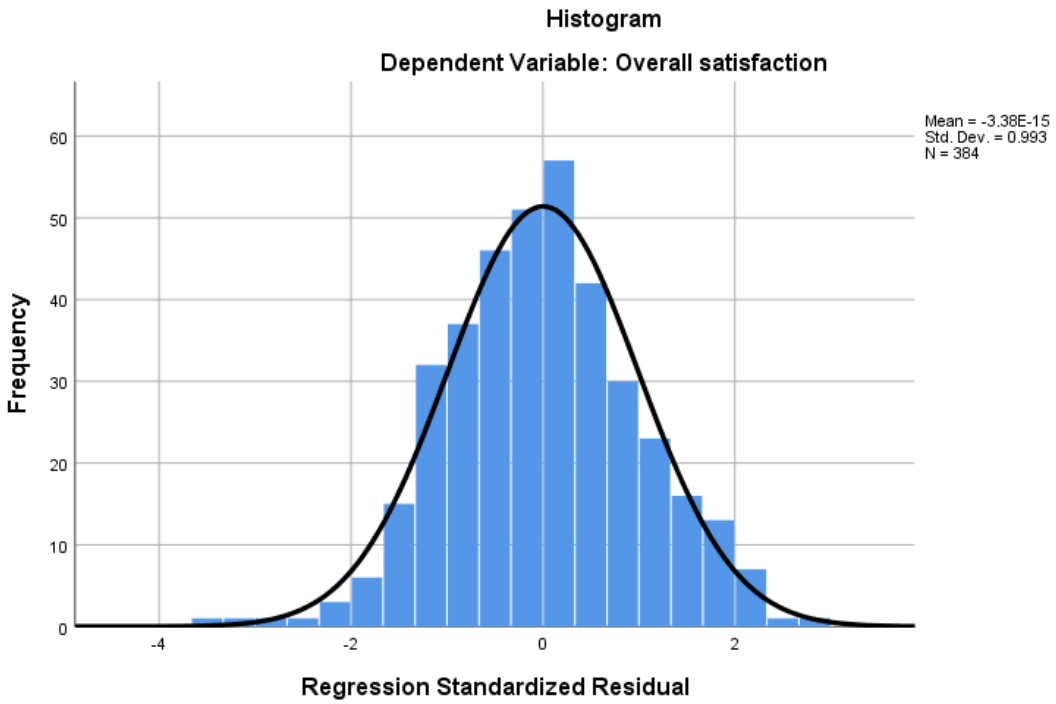
		OC	OS
OC	Pearson Correlation	1	.350**
	Sig. (2-tailed)		.001
	N	384	384
OS	Pearson Correlation	.350**	1
	Sig. (2-tailed)	.001	
	N	384	384

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

Normality

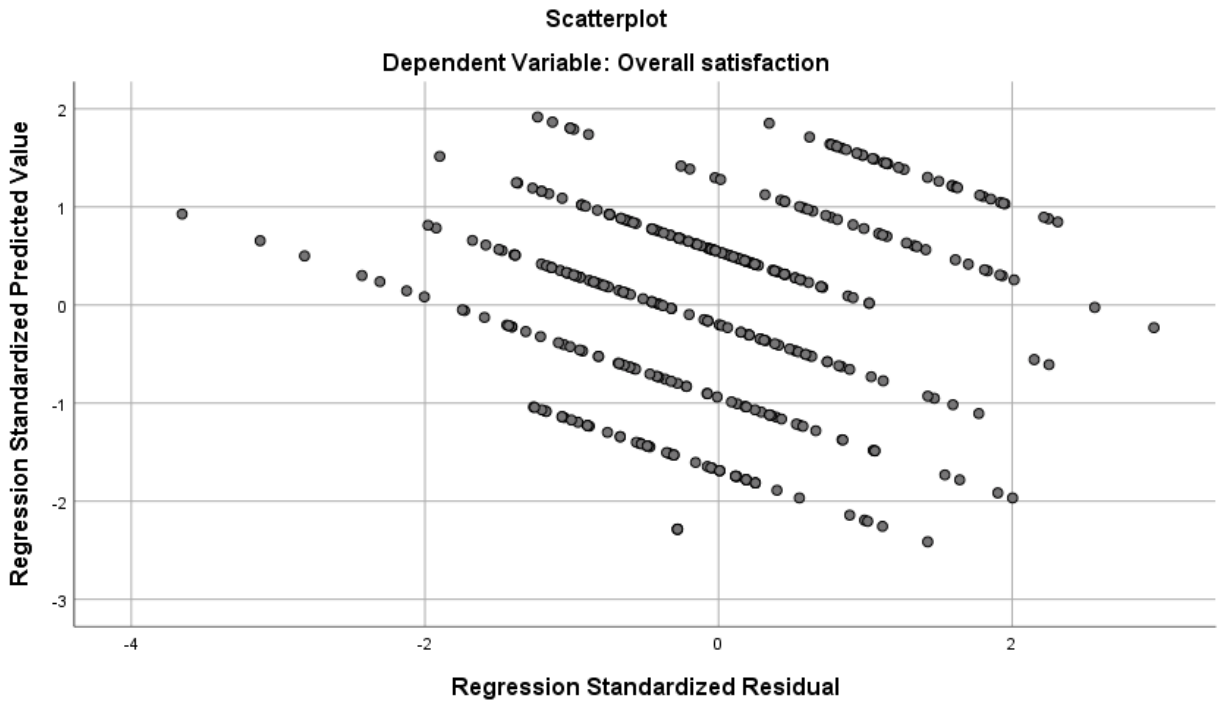
Statistics

		TC	IC	AV	PE	OC	OS
N	Valid	384	384	384	384	384	384
	Missing	0	0	0	0	0	0
Skewness		-.476	-.154	.397	-.182	-.519	.095
Std. Error of Skewness		.125	.125	.125	.125	.125	.125
Kurtosis		-.687	-.299	-.220	-.599	.393	-.781
Std. Error of Kurtosis		.248	.248	.248	.248	.248	.248



Linearity

Homoscedasticity



Independence test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.891[a]	.795	.792	.22957	2.152

a. Predictors: (Constant), OC, AV, PE, IC, TC

b. Observed variable: OS

Non multicollinearity

Correlations

		TC	IC	AV	PE	OC	OS
TC	Pearson Correlation	1	.621**	.584**	.685**	.334**	.850**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	384	384	384	384	384	384
IC	Pearson Correlation	.621**	1	.578**	.453**	.201**	.683**

	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	384	384	384	384	384	384
AV	Pearson Correlation	.584**	.578**	1	.441**	.195**	.674**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	384	384	384	384	384	384
PE	Pearson Correlation	.685**	.453**	.441**	1	.263**	.626**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	384	384	384	384	384	384
OC	Pearson Correlation	.334**	.201**	.195**	.263**	1	.350**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	384	384	384	384	384	384
OS	Pearson Correlation	.850**	.683**	.674**	.626**	.350**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	384	384	384	384	384	384

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

ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	77.120	5	15.424	292.673	.000[b]
	Residual	19.921	378	.053		
	Total	97.041	383			

a. Observed variable: OS

b. Predictors: (Constant), OC, AV, PE, IC, TC

Beta coefficient

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.506	.151		-3.347	.001

TC	.488	.034	.559	14.535	.000
IC	.236	.042	.177	5.599	.000
AV	.256	.038	.208	6.812	.000
PE	.053	.034	.051	1.584	.114
OC	.069	.023	.074	3.005	.003

a. Observed variable: OS