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Articles

The Influence of Service Quality on the Satisfaction of Real Estate Consumers.

See Page 1

Articles

Exploring the Impact of Customer Perceived Value on Customer Satisfaction Amongst Students.

See Page 48

Articles

The Impact of Social Media Usage, Knowledge Sharing on Students' E-Learning Performance

See Page 124

Inaugural Issue

Table of *Contents*

From The Editor

We are delighted to introduce POOMS Marketing, a journal dedicated to advancing the art and science of marketing. This platform seeks to inspire fresh perspectives and foster dialogue that bridges marketing theory and practice in today's rapidly evolving marketplace. Our inaugural issue presents compelling articles on topics such as consumer behavior, digital innovation, & brand strategy. We invite readers to explore these insights and contribute to shaping the future of marketing research.

Articles

Journal Contact

The Influence of Service Quality on the Satisfaction of Real Estate Consumers: The Case of *Port-Harcourt.*

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Abstract

Encouraging client loyalty through high-quality service delivery is a company's response to the ever-present problem of customer satisfaction in the service sector. In Port Harcourt, River State, Nigeria's real estate market, this study explores the relationship between customer satisfaction and service quality. The study employed a descriptive research methodology and a quantitative technique to obtain responses from 164 real estate homeowners in Port Harcourt. This subset of the overall population consisted of around 284 real estate clients. The SERVQUAL model which includes variables like Service assurance together with tangibility, reliability as well as service empathy and finally responsiveness was employed in the study, which used the convenience sample approach. Customer satisfaction and service quality elements have a strong positive link, according to the data, which were examined using SPSS software and shown as charts, frequency tables, and percentages. According to the study, real estate organizations may use the SERVQUAL model's insights to improve customer satisfaction. However, it is noted that the study's emphasis on Port Harcourt limits its generalizability, and the use of convenience sampling is acknowledged as a restriction.

Keywords: Service quality, customer satisfaction, real estate

Introduction

In real estate business, service quality can be regarded as consistency in anticipating and complying with client requirements as well as their expectations, noting than delivering quality services to customers is, an essential component for ensuring the long-term survival of any business establishment. Service quality can be termed as dependent or subjective relationship clients adhere to in regards to the standard of product or service they envisage to receive and what they actually get (Gerhard et al., 1997). A key driver of business sustainability, service quality is vital for firms' fulfillment. The quality

of customer service is an essential indicator of exceptional expertise and frequently considered as an essential component in sustaining competitive advantage in several industries. (Preko, & 2014)

Since consumers are the only ones who can truly determine the quality of a service, a company may establish an excellent track record for providing high-quality services as long as it consistently meets the needs as well as expectations of its clients Parasuramn et al., (1991). Unlike other industries, the real estate business is unique, in regards to customer fulfillment; distinguished by clients with varying wants as well as needs. Since it impacts client retention and market shares for businesses, client satisfaction is recognized as one of the most crucial and significant factors in today's fierce business climate Hadi et al., 2019).

When expectations, desires or preferences are not met exactly as expected, clients may get emotionally upset while reacting negatively to the discrepancy within their expectations and the actual experience; this is known as client discontentment (Hadi et al., 2019). A product or service's consumer experience is perceived, evaluated, and psychologically reacted to; collectively provide customer pleasure. Recurring business, loyalty, as well as client retention are all correlated with client happiness; yet, unhappy consumers may attempt to lessen the disparity by giving up on or discarding the item or they may attempt to lessen the dissonance by looking for evidence that would support its high worth. (Preko, & 2014)

In the contemporary era, there is a great chance for master-planned developments that are complemented by integrated housing complexes; potential development sites have become available due to enhanced infrastructure advancements Dobholkar & Overby, (2005). This involves the construction of better roads, as well as the development of conventional gauge railroads, airports, and information and communication technology. To ensure a hassle-free property purchasing and leasing experience, specialized agencies in Nigeria provide extensive market knowledge and expertise. Nigeria's real estate sector has seen a number of prosperous developments around the nation. The firms manage the sales as well as marketing of new homes for these emerging neighborhoods in collaboration with landowners as well as builders, and other developers. Dobholkar & Overby, (2005).

The influence of service quality from the light of customer satisfaction has been a subject of debate as to what dimensions adequately address service quality, Sanita & Mutuku, (2019) conducted a study aimed at realizing consistent quality influences, they sought to address the effect of dimensions influencing service quality particularly in the real estate sector in Kenya; drawing from the outcome of their investigation, they compromised that; service reliability including assurance as well as empathy, not overlooking tangibility and responsiveness prominently influence customer's satisfaction in real estate domain.

Similarly, a crucial quest to assess service quality provisions was undertaken by Yeheyes (2018), the paramount concern was to identify possible service quality deliverables associated with Afro Tsion real-estate. They claimed that the industrial property market has grown to be a key area of attention for businesses. The real estate business has developed into numerous separate industries as buying real estate involves a large financial commitment and because every piece of property is different. To assess property values as well as streamline operations, professionals are frequently relied upon. Assessment of service quality is an issue in some real estate establishments' types. The conceded that assurance did not attest to affect the firms' service quality while tangibility proved to affect it including empathy as well as responsiveness.

Dananjoyo et al. (2022) put forth a persuasive case highlighting the significance of service quality's impact on customer satisfaction within the real estate industry, specifically focusing on the residential housing segment. Their research delves into the clear and unambiguous examination of the influence of sustainable service quality on customer satisfaction in the realm of real estate.

concluding that; If consumers were not satisfied with the quality of the dwelling (home), they would look for alternate possibilities that offered superior products as well as amenities. According to this, home architects ought to be equipped as well as determine the wants of householders by considering their driving forces, as householders are continuously searching for better options to meet their individual requirements. Thus, after meeting clients' demands through higher-quality services, real estate developers will be able to build a stellar reputation. Dananjoyo et al., added sustainable

construction as direct influencer of real-estate customers while noting that service tangibility, assurance including empathy as well as reliability portray a significant influence regarding customer gratification in the real-estate sector.

Statement of the problem

One cannot stress any further the importance of real estate buyers in property brokerage operations; they work in the service industry and have an impact on the manner in which real estate customers in Nigeria perceive the overall quality of services provided. According to Araloyin & Olatoye (2011), there is more competition in the commercial real estate market in Nigeria than there is in other industries within the city due to the growth of residential real estate companies in the area and the growing awareness of concerns about service quality among consumers. They also asserted that there has been little attention paid to the requirements as well as happiness of customers in the one that powers legitimate property agencies in Nigeria. (Araloyin & Olatoye) concluded that frequency in communication including enactment of guaranteed service as well as on time services categorically influence service quality at the level of real estate industry in Nigeria.

After conducting a thorough investigation into the importance of quality of services within the real estate industry, Dananjoyo et al. (200) came to the conclusion that sustainable construction directly influences real estate buyers. They also noted that service tangibility, assurance, empathy, and reliability have a substantial influence on customer contentment within the real estate sector. The 1975 Act: No-24 which introduced the surveying profession as well as Properties Certification Authority in Nigeria's (ESVARBON) legally permits the operation of real-estate agents to act in accordance with the purchase, sale, or lease of real estate or any ownership stake therein under the terms stipulated by the act. But numerous professionals including those lacking a formal educational background in a relevant field have lately entered the Nigerian real estate service industry as well as expanded their primary businesses to include real estate-related services. In order to find property that is landed, one is no longer compelled real-estate agency services resulting from the substantial rise in overall proliferation of real-estate services in the present complex business sphere in Nigeria. Previous research has also

demonstrated that real estate practices do not adequately address requirements of all parties engaged in sales and purchases of real estate.

Araloyin & Olatoye (2011), Sought to address customers' perception regarding service quality predominantly in real estate business in Nigeria, utilizing variables like; guarantee of frequent communication, performance of promised service as well as provision of on time service. These elements fall short of addressing clients perception regarding the quality of service clients receive and the promised service. Therefore, dimensions influencing service quality particularly in the real-estate sector explicitly; service reliability including assurance as well as empathy, not overlooking tangibility and responsiveness can address service quality related issues in Nigeria real-estate market better. We are therefore investigating customer satisfaction as reliant to these stated dimensions of service quality

Research questions

Primarily, our main concern pose as a question in this research work was; does service quality influence the satisfaction of Real-estate consumers in Nigeria

Precise Inquiry Points

What is the influence of service reliability on the satisfaction of real estate consumers in Nigeria?
What is the influence of service assurance on the satisfaction of real estate consumers in Nigeria?

What is the influence of service tangibility on the satisfaction of real estate consumers in Nigeria?

What is the influence of service empathy on the satisfaction of real estate consumers in Nigeria?

What is the influence of service responsiveness on the satisfaction of real estate consumers in Nigeria?

Research Objectives

Evaluating the Influence of Service Quality on the Satisfaction of Real-estate consumers River State Nigeria served as the central objective of this scientific inquiry. A proper, clear or well-articulated planning paves the way for the realization of a distinct work; this cannot be overlooked in respect to a

research endeavor; this attribute has been observed in this research by drawing clear as well as distinct objectives capable of portraying that which this piece of work seeks to address.

Significance of the study

It will determine crucial standards of excellence in Port Harcourt-River State Nigeria's real estate market, enabling growth of regulations; competence in enhancing services provided to clients. Furthermore, given the current economic climate marked by rise in globalization, including economic expansion competitiveness, it could reinforce competitive edge of vendors of services within real estate market as well as guarantee their chances of surviving fierce competition.

Additionally, the findings from the study will act as eye-opener or an orientation for those who provide real estate services in order to help them achieve competitive advantages and emerge among desired providers of services in Port Harcourt-River State Nigeria's real estate market.

 This study will provide real estate entrepreneurs with creative ways to increase client happiness by examining the influence of service quality on customer satisfaction in Nigeria's real estate market.

Literature Review & Hypothesis Development

 In order to evaluate and quantify service quality across a range of industries, A. Parasuraman, Valarie Zeithaml, and Leonard Berry created the SERVQUAL (Service Quality) model framework in the 1980s. The theory is predicated on the notion that consumers assess the quality of a service by drawing comparisons between their perceptions—their actual experience of the service—and their expectations, or what they think the service ought to be. The perceived quality of the service decreases when expectations and perceptions diverge more. Ten factors, including "accessibility, reliability, responsiveness, competence, courtesy, communication, credibility, security, understanding the customer, and tangibles," were initially identified as determinants of service quality when Parasuraman et al. (1985) introduced the SERVQUAL model. Five dimensions emerged from the consolidation of these determinants over time: tangibles, assurance, responsiveness, reliability, and empathy. With a

focus on important elements like appearance, dependability, promptness, competence, and customer understanding, this model provides a thorough framework for evaluating and quantifying service quality across a range of industries.

When it involves services, there are less physical clues to measure quality as compared to the case products; hardness including style together with color, as well as packaging, including fit are just a few of the observable indicators that consumers use to assess quality when making purchases. The real-estate assets, machinery, as well as staff of the service provider comprise the majority of evidence that is visible. When there's no physical proof available, customers have to rely highly on other indicators to determine quality. Scholars have not yet examined the specific characteristics of these additional indicators, although some writers have proposed circumstances wherein further information is unavailable, pricing takes on the role of a crucial quality indicator. Considering services are intangible, it might be harder for a business to comprehend how clients see its offerings along with the level of Quality Company offering services could offer suggestions regarding how to sway feedback from consumers in the way they want if they are aware of how the customer will assess the service (Parasuraman et al., 1985). To better understand the relationship between service quality and customer satisfaction, it is crucial to add the European Performance Satisfaction Index (EPSI)

EPSI Model

According to Yeheyes (2018), the EPSI model was developed in 1998 and is currently utilized in 20 European nations, making it a recognized global model. With seven latent variables, or non-observable variables, the model is alternatively referred to as a structural equation model. It is predicated on the idea that in order for any business to succeed financially over the long run, it is imperative that it pay attention to its clients. A company's capacity to adjust to the shifting demands and preferences of its customers is critical to its long-term performance. The EPSI is made to compare and offer a benchmark of support for such a solution based on a complex collection of parameters that impact customer support.
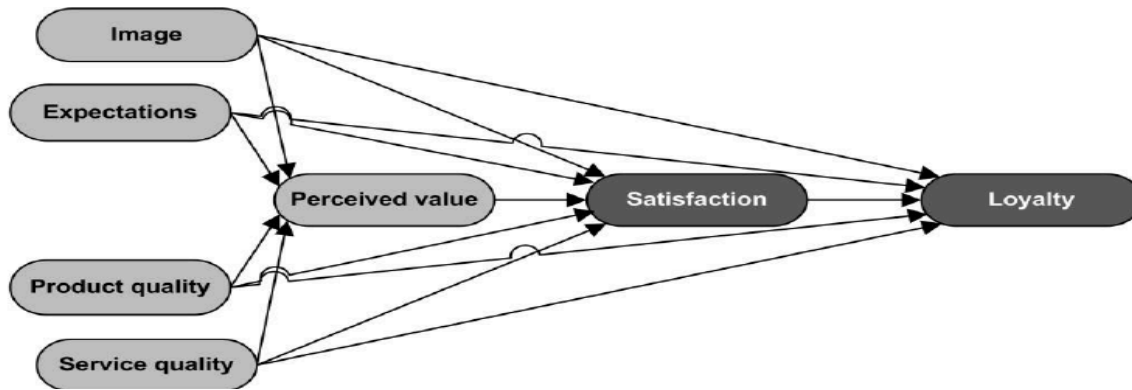
Figure: The EPSI model

Skowron & Skowron, (2013)

Dissonance theory

Festinger's 1957 dissonance theory serves as the foundation for the Assimilation hypothesis, according to investigations conducted by (Sanita & Mutuku, 2019). According to the dissonance hypothesis, customers mentally compare their expectations regarding a product to how well it performs as it is viewed. Assimilation theory brought this perspective the customer post-usage assessment to the literature on contentment (satisfaction). Other researchers claim that buyers try to adjust their expectations about a particular product closer to reality in order to steer clear of experiencing cognitive dissonance. by reshaping expectations to match perceived merchandise performance or by decreasing the relative significance of the confirmation experienced, It is possible for customers to lessen the tension that might develop when a product fails to live up to their expectations. All of these strategies can increase consumer satisfaction. Assimilation Theory is deemed to have some drawbacks by Isac & Rusu (2014). To begin with, the technique makes the assumption that expectations and contentment are related, but it doesn't explain how an expectation disconfirmation might affect one's level of fulfillment or unhappiness. Furthermore, according to the notion, customers are sufficiently driven to modify their expectations or opinions regarding the effectiveness of the item. a significant association amid anticipation and satisfaction can be observed when adjusting for genuine product performance according to certain investigators.

Thus, it suggests that as long as the evaluation procedures start without negative customer expectations, discontent can never happen. Considering it helps the end user as a whole to sort of cognitively compare expectations about the good or service with what they perceive as its performance, this theory is helpful to this study. The dissonance will undoubtedly manifest itself if there is a difference between what is anticipated and what is perceived performance. The present study established the concept of post-usage assessment to examine satisfaction via an understanding of the assimilation theory.

Service Quality

While the definition of quality can vary depending on the circumstances and the perspectives of all stakeholders, it often relates to achieving or exceeding particular goals, standards, and behaviors. Although quality has emerged as a key priority for industrial development, opinions differ on what quality is and how best to get it. Widely disparate results in the performance of completed items might result from production based on varied quality targets and differing understandings of quality. Before these goals can be expressed and converted into quantifiable targets, executives must have a clear idea of the quality objectives they want their staff to attain (Forker 1991). They must first comprehend what qualifies in order to get this strategic emphasis.

Palmer (2011) defines service quality as; *"The production of an essentially intangible benefit, either in its own right or as a significant element of a tangible product, which through some form of exchange, satisfies an identified need."*

Additionally impacting future cash flows, customer happiness boosts profitability and earnings, which has strategic ramifications. Customer satisfaction has attracted a great deal of attention, especially in the field of consumer marketing, and its scientific basis is very well established, despite differing views on topics like the contribution of expectations to customer happiness (Yeheyes, 2018), .Quality from the Japanese perspective is considered; zero defect that is, doing it right the first time. a number of factors, including the circumstance wherein it is used, the word "quality" may signify several things.

The term "quality" describes a commodity's level of perfection or standard. It refers to attributes or elements of a process including service, or product that either meets exceedingly the expectations of the client. If we consider the entire globe to be a single market and every company to be a rival, we may argue that there is fierce rivalry; as a result, client happiness is crucial to an organization's success (Kayastha 2011).

Durability, dependability, performance, including specification as well as compliance are examples of qualities that are frequently associated with goods and services. Goods and services that continuously satisfy or beyond consumers' needs and expectations are considered high-quality. It refers to how well a good or service meets the demands and expectations of the user. High-quality results are a result of meeting client expectations and providing value. One can gauge quality by comparing it to pre-established guidelines or requirements. A high-quality item or service is frequently characterized by compliance to standards or guidelines. Excellence and quality are sometimes used interchangeably. Aiming for the highest possible result with respect to workmanship, aesthetics, usability, or virtually any other pertinent aspect is what constitutes the desire to pursue quality.

The quality of services rendered by entity or company is referred to as service quality. Multiple features including assurance together with empathy, reliability, tangibility as well as responsiveness are frequently used to quantify service quality. The general standard of excellence or contentment which clients feels whenever engaging with a service provider is referred to as service quality. This indicates the degree to which a service fulfills expectations of the clients. Especially for companies in the service sector, service quality plays a critical role in the prosperity and competitiveness of enterprises. Given that customers are more likely to rely on their experiences following a first transaction than on a store brand's reputation or recognition, service quality is a significant factor in determining the intention to make repeat purchases. *(Park, Bhatnagar, & Rao, 2010)*

In order to cultivate client happiness, commitment, as well as referrals that are favorable, greater service quality must be achieved. Organizations frequently apply several tactics, including staff development, workflow optimization, and feedback from consumers systems, to augment service excellence and

fulfill or surpass client anticipations. For companies trying to stay ahead of the competition in the market, measuring and tracking service quality is a continuous effort. Cronin and Taylor argued that service quality could best attain actual quality if emphases were directed towards actual service performance than insistence on perception as well as expectation.

A popular methodology for evaluating as well as quantifying service quality is SERVQUAL, which was created by Parasuraman, Zeithaml including Berry in 1985. Consumers employ five essential criteria to assess the efficacy of the services they get, according to claims broad forward in SERVQUAL. Commonly used shorthand to help recall these dimensions is known as RATER. Consumer views and expectations regarding service quality are explicitly demonstrated through application of these five dimensions: service responsiveness including tangibility, empathy, as well as reliability; gathered using SERVQUAL paradigm, which takes the shape of a survey questionnaire.

Service reliability: It is true that an aspect of high-quality services is reliability, which SERVQUAL characterizes in a broader sense as the capacity to deliver the service that was promised precisely as well as consistently. it involves elements regarding service delivery that are consistent, predictable, as well as error-free. In the opinion of Parasuraman, ensuring consistency as well as dependability in view of meeting consumer expectations is crucial in the context of service reliability. This could entail reducing faults including delays to services, executing services on schedule, as well as giving correct information. By providing their clients with appealing services, service providers earn a profit, Tortorella, (2005). In turn, their users or customers have expectations regarding the dependability of the service or services they pay for. These clients are concerned about being able to use the service they paid for whenever they want to. Every time a transaction takes place, they are concerned about whether the quality of the transaction lives up to their expectations. These are all concerns about service reliability: the service's ability to operate well during the duration that the service provider is offering it (i.e., during its "design lifetime"). In summary, service dependability pertains to the "repeated successful delivery" of experiences, or transactions, in a given service over an extended period of time.

Service assurance: Although these characteristics are the main focus of Parasuraman's work, service assurance may have originated or developed in the area of service administration and consumer engagement fields on its own. Superior quality is the best assurance of client loyalty, the strongest defense against competitors, and the only path to continued development and profitability for businesses (Rachman, 2017). Assurance gauges how well service providers are able to build trust with their clients, which is crucial for encouraging clients to choose the company over rivals. It is also a critical component of SERVQUAL, which focuses on staff members' knowledge, demeanor, and capacity to instill confidence in customers, especially trust. Employee assurance comes in the shape of their capacity to inspire faith in the promises made to the customer (Rachman, 2017). According to Kongogo et al. (2013), assurance and empathy are composed of the seven initially developed dimensions: communication, security, credibility, competence, understanding/knowing students, courtesy, and access.

Service tangibility: The real-world indicators as well as proof clients utilize in assessing and comprehend intangible service offered to them are referred to as service tangibles in the words of Parasuraman. The SERVQUAL model identifies tangibles as the outward look of the buildings, tools, staff, and marketing materials that are connected to the service. Aspects of a service that are "felt" but not actually purchased are referred to as tangibles. Businesses use tangibles, or the "visible" parts of their services, to increase external consumer satisfaction, (Panda & Das, 2014, p. 1). Due to the intangible nature of services and the difficulty customers frequently have evaluating the level of quality of a service prior to, during, or following consumption, tangibility is essential. The European school of thought is based on the idea that consumers assess service quality from both a functional and technical perspective. The physical setting of the location where the service is being provided and/or traded is crucial, but this is overlooked by the European school of thought. This gap is filled by the American school of thought, which defines service quality as the difference between the total perception and expectation gap and the actual service delivery (Panda & Das, 2014; Parasuraman et al., 1985, 1988, 1991, 1994). In order to increase the perceived quality of their services and foster client trust, service

providers should focus on tangibles. Higher client satisfaction and loyalty might result from better tangibles.

Service empathy: In terms of client interactions, empathy refers to the ability of service providers to understand and feel the feelings of their clients. It involves perceiving the needs of a customer, being aware of their emotions, and responding to them in a kind and understanding manner. According to Wieseke et al. (2012), on page 317, empathy is described as "a person's ability to sense another person's thoughts, feelings, and experiences, to share other people's emotional experience, and to react to the observed experiences of another person." Service empathy is essential for creating positive customer experiences and fostering customer loyalty. According to research by Daniels, Glover, & Mellor, Citation 2014; Markovic, Iglesias, Singh, & Sierra, Citation 2015; Meneses & Larkin, Citation 2012), empathy is a social feeling that is essential to comprehending the nature of relationships between employees and customers in a business setting. These investigations provide useful evidence of a positive association between employee empathy (EE) and employee–customer interactional processes, as well as the impact of EE on CS, because they only display the expected linkages in the model, which is the historically original model (Kristensen et al., 2000).

Service responsiveness: The SERVQUAL model developed by Parasuraman defines service responsiveness as the result of combining effective communication, including politeness, promptness, readiness to reply, and a willingness to assist. Only a small number of researches have examined the influence of being responsive from the viewpoint of the consumer to comprehend their happiness and behavioral reactions (Sharma et al., 2020a). However, from the viewpoint of upstream supply chain participants, The empirical association between responsiveness and customer satisfaction has been investigated in prior studies (Gorane and Kant, 2017; Sandberg and Jafari, 2018; Olorunniwo et al., 2006). Service quality is seen more favorably when it meets or exceeds client expectations in these areas. Companies that prioritize these important aspects may utilize the SERVQUAL methodology to evaluate as well as enhance the services they provide. Anwar, (2017) carried out a study in a university

and found out that, For major students, a fundamental component of service quality is the university's capacity to verify that they are delivering a service on time.

With the consumer's satisfaction acting as a mediator, Dananjoyo &Udin (2022) aimed at quantifying client's devotion according to sustained service quality characteristics, including; sustainability as well as dependability, construction together with assurance, tangibility, including empathy and responsiveness. They contribute to the body of literature by endorsing and validating a framework which assessed relationship between client's happiness and sustainable service quality connection to client commitment. The research investigation established that client's happiness was a direct result of the determinants of sustainable service quality. In the broader setting of the residential real estate market, the study found out that the determinants of sustainable service quality had a crucial influence in determining client happiness. (Dananjoyo & Udin 2022).

Customer satisfaction

Managers are becoming more and more interested in using client contentment as criterion for measuring the quality of service offered. it is often accepted that the most accurate predictor of an organization's potential profitability is one with exceptional client endorsement ratings. a Post purchase assessment of the product's quality in relation to pre-purchase expectations could be used to widely define contentment (satisfaction). There are many contexts in which one might encounter customers' satisfaction, and it is related to both products as well as services. Customer expectations have a significant impact on this extremely subjective evaluation. Consumer experiences with the company as well as their own personal results are also factors that determine clients, gratification. According to several academics, a pleased client in the commercial sphere is "one that obtains substantial enhanced Value". Marketers are increasingly impacted by clients' expectations in contemporary fierce corporate environment, thus it is critical that they satisfy this need. As it relates with consumers, each firm has to determine consumer contentment. Therefore, the standard or product quality alone cannot be utilized to describe consumer fulfillment. Relationships amid client and item or service being purchased, as well as the supplier of the good or service are key to ensuring

clients' satisfaction with the service.   Client gratification (satisfaction) is a very subjective measure that is heavily impacted by subjective aspirations or expectations. Certain interpretations rely on the notion that; the service as well as an item's ability to meet or exceed a person's requirements determines whether the client is satisfied or dissatisfied. Numerous experts advise businesses to stay focused on an endpoint that's more directly related with consumer egalitarianism in order to prevent issues arising because of the diversity in client requirements and aspirations. Rather than inquiring about customer satisfaction, experts advise businesses to find out the way clients' hold them responsible. an extent wherein a consumer feels that; a person, business, or organization has successfully delivered a good or service that satisfies their demands at the circumstances whereby they are knowledgeable about and utilize the item in question or service is considered client gratification or satisfaction. Customer-provider relationships are collectively formed, thus satisfaction is not innate in any party. Rather, it is a reaction to these relationships. a supplier or manufacturer can affect client contentment to the level that they have control over the relationship's numerous aspects. (Cengiz, 2010).

Methodology

The design of a research study refers to a structure or a collection of methods and procedures employed to gather and analyze data related to specific variables outlined in a particular research problem (Ranganathan & Aggarwal, 2018). Furthermore, Kassu (2020), added that to offer a relevant framework, a research design is vital for study. The purpose of this research was to assess customer satisfaction on real estate in Port Harcourt. In order to represent the modern environment in which the study was carried out, this survey employed a descriptive and causal research design. Saunders, et al. (2009) & Miller (1991) assert that descriptive research provides a precise representation of individuals, occurrences, or circumstances. It is a procedure for gathering data with the goal of generating expected results in relation to the topic under consideration, Hot et al (2012). Analytical studies were used in this survey to gather information about real estate clients' thoughts, emotions, and behaviors inside the organization (Mohajan, 2020).

Population, Sample and Sampling Technique

The whole set of cases from which researchers select their sample is referred to as the population, (Taherdoost, 2016). Wright & Pandey (2010) define the target population or audience as a group of people or objects for which the study will be generalized. All of the real estate clients in Port Harcourt - River state will make up the study's population. Homeowners of both residential and commercial properties are served by the Port Harcourt real estate market. This suggests that the researcher will concentrate on those who purchase homes to rent to renters, including students and businesspeople. Additionally, pay attention to those who purchased homes in Port Harcourt for their own usage, such as private families and singles. The population of real estate clients in Port Harcourt was approximately 284, and it is from this population that the researcher plans to make an inference.

The act of choosing a subset of people or components from a larger population in order to draw conclusions or make generalizations about that community is known as sampling. Since it is sometimes inconvenient or impossible to investigate a community as a whole, researchers employ samples in order to make inferences about the larger group. The main objective of sample selection for research is not so much to analyze the characteristics of the sample as it is to comprehend the characteristics of the full population from which the sample was taken, (Mulisa, 2022). The study sample size was 164 real estate home owners selected from the entire population that was estimated at about 284 real estate clients.

Clustered sampling, which is random, and convenience sampling, which is non-random, will both be used in this investigation. This method—often called a multistage sampling technique—is selected to improve the sample's representativeness. The choice to utilize a multi-phase approach stems from the residential habits of real estate clients in Port Harcourt, where a significant proportion live in close proximity to one another across different districts. According to Acharya et al., 2013, when there is no comprehensive list of all population members and it is not acceptable to obtain one, multi-stage sampling is commonly utilized.

Clients will first be grouped into clusters or neighborhoods, and then particular clusters are chosen through the use of random sampling. This guarantees a varied representation in various residential

regions. The study will next use convenience sampling at the individual level after the cluster selection. Taherdoost (2016) explains that with convenience sampling the selection of participants will be based on their availability and willingness to participate in the study. Convenience sampling makes it possible to include people who are easily accessible, which adds to the practicality of data gathering. Therefore all real estate consumers who will be willing to partake in filling out the questionnaires in those clusters will constitute the target sample and the researcher aims at 164 questionnaires that will be issued for data collection and analysis.

Data collection instruments

Standardized questionnaires were used as a tool of data collection in order to acquire primary data from research participants. Participants were asked to select the choice in the survey that most accurately represented their answers to the questions, from a list of predetermined response possibilities. Survey replies are typically simple to tabulate or score, and the resultant data are straightforward to analyze. This is particularly true if the majority of the questionnaire's items are checkable options, (Patten, 2016). In addition to being efficient and straightforward, Patten noted that questionnaires are affordable and helpful for gathering data on delicate subjects. An added advantage of questionnaires is that respondents may take their time and carefully consider their responses while responding to surveys. An excerpt of the survey will be included with this article. The questionnaire only included closed-ended questions and used 5-point Likert scales for all of its questions in order to keep it simple. It was organized into six main subsections: Information on Customer Satisfaction in the Real Estate Sector; Details Regarding Service Reliability; Information on Service Assurance; Information on Service Tangibility; Information on Service Empathy; and Information on Service Responsiveness. The sections above make it quite evident that client satisfaction in the real estate sector is based on five independent variables: service tangibility, service assurance, service responsiveness, service empathy, and service reliability.

After using primary data as the foundation for achieving the goals of this study, secondary data was gathered to support the investigation. This data was obtained from trustworthy secondary sources,

including books, journals, websites, and previous material, that were essential to achieving the study goal.

Variables on which Data is Collected and their Measurement

This work's title, "The Influence of Service Quality on the Satisfaction of Real Estate Consumers," makes clear that a real estate client's level of satisfaction is influenced by the caliber of services offered by real estate companies. In other words, service quality affects customer happiness, which is the dependent variable, while service quality is measured by five factors. Among these variables are; Service assurance together with tangibility, reliability as well as service empathy and finally responsiveness

A Likert scale—a tool for assessing attitudes, behaviors, and opinions—is used. Because Likert scales offer a range of possible responses, they are useful for more accurately capturing respondents' thoughts or degree of agreement with a given problem. A five-point Likert scale was used to gauge the level of agreement among Port Harcourt real estate clients.

Pre-testing a research instrument is crucial to identify any problems, limitations, and deficiencies with the questionnaire and allows for change prior to data collection. Pre-testing aimed to prevent evaluation and linguistic inconsistencies while also assessing participants' comprehension of the questions. In this light few questionnaires were verified employing an insignificant number of real estate clients, which established a reliable basis for evaluating put forward instruments.

Validity and reliability assessment

According to Wanjala et al., 2017), a measure regarding tool's validity, is how well it anticipates and gathers the data needed to accomplish the aims of the research. S. E. Phillips (1994) asserts that professional design is essential. The supervisor inspectors' comments and recommendations enhanced the questionnaire's quality (validity). Seven volunteers who were chosen at random from the general community were used to pretest the study instruments before the data was collected in a physical setting. According to Macharia (2016), validity increases a tool's dependability. That being said, a powerful tool is an essential one. Reliability is the ability of an instrument to gather data reliably and

consistently under comparable conditions and with similar participants. A measurement is deemed trustworthy when someone takes the same evaluation more than once and gets a similar result. The researcher used an inner uniformity indicator called Cronbach's alpha values, which evaluates the breadth of the testing questions, while analyzing only one underlying issue. The study process's parameters had a threshold assessment reliability value of 0.7 set for them. At 0.7, the score, which ranges from zero to one, is considered good. L'hadi Bouzidi and Jaillet, A. (2009) state that, an indicator falling between 0.7 and 0.8 is considered good. For a study to be considered confirming, the alpha score must be more than 0.7 (especially when it comes to a previously tested grading system). Validity is the degree to which a tool evaluates exactly what it is meant to evaluate. If a measuring instrument yields the same results every time, under the same conditions and with the same set of participants, it is considered trustworthy. Reliability is the quality of consistent or dependable results in the most fundamental sense. Reliability is a component of truth assessment (Sullivan, 2011). Validity in research refers to how well a survey answers its research question or simply how reliable its results are. The precision of an assessment over outcome assessments such as tests or polls is referred to as validity. The validity of the assessment tool in this instance refers to how well it really measures the main outcome of interest. Validity isn't a property of the tool for every student; rather, it's a property regarding application of a tool in respect to a specific set of students in accordance with a certain setting (Sullivan, 2011). Measurement instruments need to be reliable and accurate in order for research findings to be taken seriously. Therefore, the validity and reliability of any assessment method used to assess study findings should be examined, mentioned, or backed up by references. These assessments can be seen in school and instructor evaluations, for instance. In order to demonstrate the validity of the research, it is essential to use a tool with high dependability.

Limitations of Data Tools

While this study concentrated solely on the real estate market in Port Harcourt, which represents only a small fraction of Nigeria, drawing conclusions about the entire real estate sector in Nigeria based on this study may be challenging. Additionally, the study employed a multistage sampling approach,

utilizing clustered sampling initially and later incorporating convenient sampling. However, it is important to note that convenient sampling carries the inherent risk of bias. Consequently, the findings of this study may not be fully representative of the overall population.

To enhance simplicity in analysis, this study opted for a structured questionnaire, relying exclusively on closed-ended questions. However, it is crucial to acknowledge that this approach may restrict respondents from expressing nuanced or detailed insights and genuine feelings regarding the subject matter. Finally, the use of questionnaires posed challenges for the researcher during the study. Collecting a significant number of responses from real estate clients proved to be time-consuming, and dealing with the reluctance of some respondents posed a significant challenge.

Data Analysis

Every research effort must adequately assess and express the meaning acquired from field data in order to add relevance and uniqueness to the problem being addressed. The main data analysis program utilized for this project was SPSS making it easier to evaluate the field data that was gathered. Pie charts, bar charts, and percentage tables were also used in descriptive analysis to demonstrate data correctness. A Cronbach coefficient (Cronbach alpha coefficient) study was done for the independent and dependent variables. Regression analysis was utilized to determine the relationship between the variables, and multiple correlation analysis (MCA) was employed to create the indexes.

Ethical consideration

This unique piece adhered to ethical guidelines as well as standards including; obtaining contributors' knowledgeable consent, protecting individuals' privacy and confidentiality, and ensuring they were not injured in any way. Lastly, due credit was given to each secondary data source that was used.

Results & Findings

The fundamental focus of this section is analyses as well as demonstration of data used in the study and the discussion of the findings according to the specific objectives and hypotheses stated in the introduction .

Firstly, a total number of 164 questionnaires were given out all the 164 were used in the analysis giving a total response rate of 100%. Based on the demographic characteristics for this study, the sex, age and educational level of the respondents were assessed and the findings are presented below
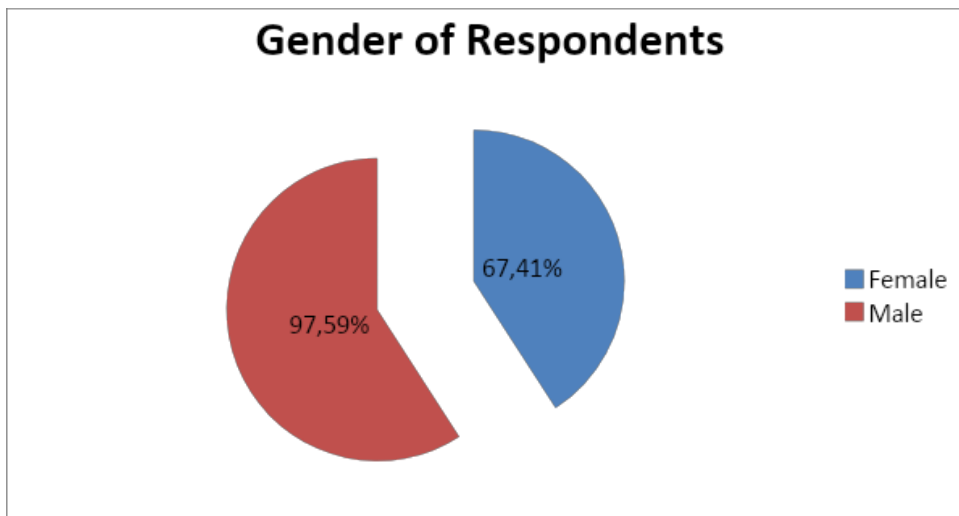
Figure 4. 1: Sex distribution of respondents

Source: Computed by author, 2023

Based on the findings, it was observed that 97 respondents, constituting 59% of the total participants, were male and 67(41%) were female. Male respondents made up the majority of the respondents because they are the dominant sex in real estate in Nigeria so they will know more of subject matter.
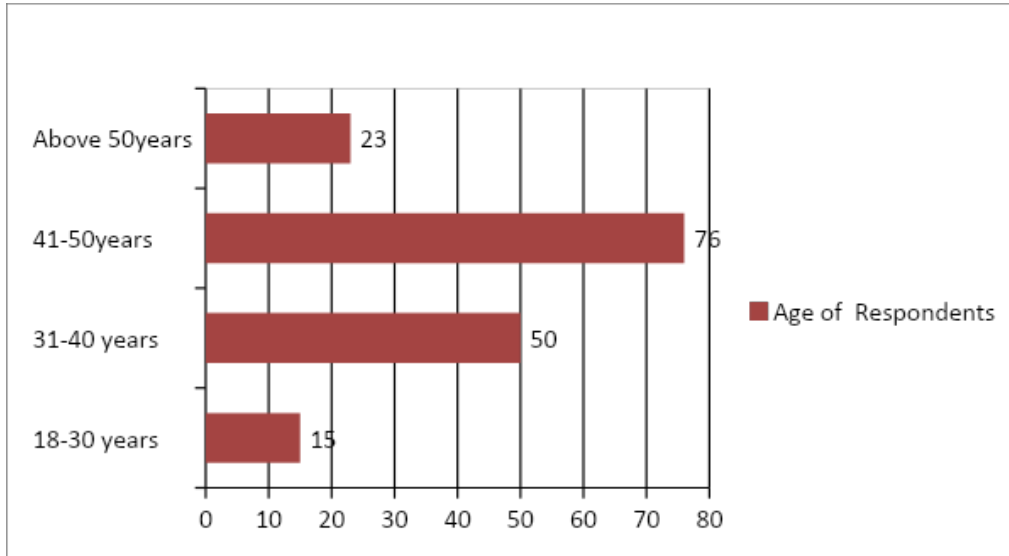
Figure 4. 2: Age distribution of respondents

Source: Computed by author, field data 2023

According to the results, it was observed that 15 participants, accounting for 9.1%, fell within the age range of 18 to 30 years, while 50 respondents (30.1%) belonged to (31-40) years, 76(46.3%) who made up majority of the respondents, 23(14.0%) for the respondents. Most of the participants as revealed were above 30 years which indicates that they have enough experience in the field to be able to answer the survey.
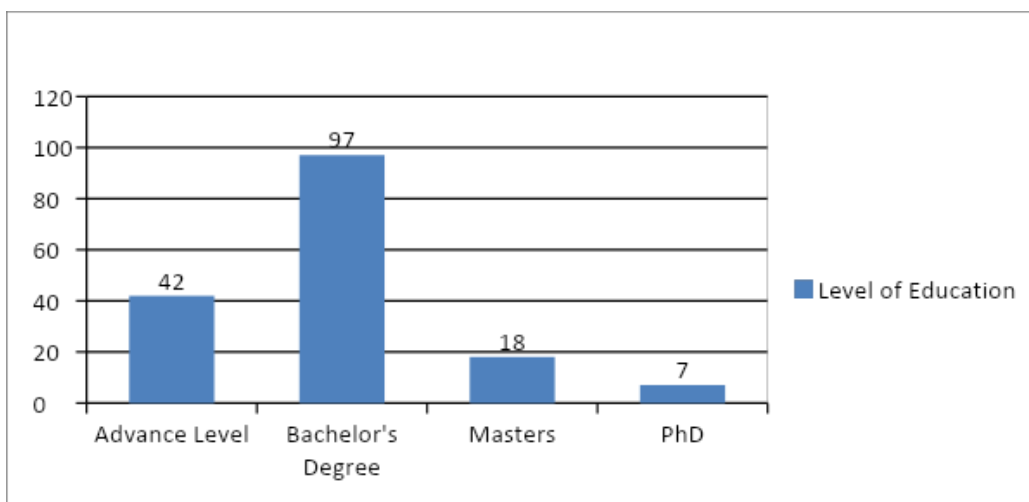
Figure 4. 3: Educational level distribution of respondents

Source: Field data 2023

After the data was analyzed, it was found that 42 participants (25.6%) had completed an Advanced Level as their greatest level of study, and 97 respondents (59.1%) had completed a Bachelor's degree. In addition, a total of 18 respondents (11.0%) held a Master's degree, whereas just 7 respondents (4.3%) reported having a PhD as their highest degree. A significant number of participants as shown by this statistics; held a bachelor's degree or above, indicating a strong grasps of real estate and service quality

Test of Reliability

The researcher performed a pilot test to confirm the validity of research tools in regards to measuring dependent as well as independent variable

Reliability Test for the Independent Variables

The Cronbach Alpha was computed for "SERVICE QUALITY" and it was studied with the use of five variables. As illustrated in the succeeding table

Table 4. 1: Cronbach alpha coefficient table for service quality (independent variable)

Dimensions	Items	Cronbach coefficients	Acceptability
Reliability	5	0.840	0.840>0.7; Acceptable
Assurance	4	0.755	0.755>0.7; Acceptable
Tangibility	4	0.752	0.752>0.7; Acceptable
Empathy	4	0.770	0.770>0.7; Acceptable
Responsiveness	4	0.726	0.726>0.7; Acceptable

Source;field data 2023

This piece revealed that the Cronbach Alpha for Service Reliability was 0.840, for Service Assurance was 0.755, for Service Tangibility 0.755, for Service Empathy was 0.770, and for Service Responsiveness was 0.726, all were greater than 0.7 which is the threshold value according to Cronbach (1951) which indicates that the instruments were reliable and sufficient for the study.

Table 4. 2: Cronbach alpha coefficient for customer satisfaction (dependent variable)

Reliability Test	
Cronbach coefficient	Items
0.831	4

Source; field data 2023

The assessment of customers' satisfaction was conducted using a set of four items (instruments) as seen on the questionnaire. The Cronbach Alpha was 0.831> 0.7, which means that the instruments used to study customer satisfaction were reliable and sufficient for the study.

Service Reliability

Table of frequencies and percentages was used to show the respondents' opinions on service Reliability as shown on the Table below.

Table 4. 3: Respondents opinions on service reliability

Service Reliability	SA	%	A	%	U	%	D	%	SD	%
The firm meets their promised time-frames for response	36	22.0	105	64.0	13	7.9	9	5.5	1	0.6
The firm is sympathetic and reassuring, when the customers have problems	37	22.6	101	61.6	19	19.6	6	3.7	5	3.1
They keep accurate record	33	20.1	114	69.5	10	6.1	7	4.3	0	0.0

They provide their services at the time that was promised	28	17.1	121	73.8	11	6.7	4	2.4	0	0.0
The staff are dependable	22	13.4	103	62.8	21	12.8	15	9.1	3	1.8

Source; field data 2023

Based on the findings as seen on the table; firstly it was seen that 36(22.0%) a significant proportion of the respondents indicated their strong agreement, while an additional percentage of respondents, amounting to 105(64%), expressed agreement with the statement that the firm meets their promised time-frames for responses. 9 of them constituting 5.5% and another 1 making up 0.6% rejected and strongly refused respectively to the statement. Some of the respondents - that is 13 individuals constituting 7.9% of the sample, expressed neutrality toward this assertion. Additionally, the findings reveal that 37 respondents (22.6%) agreed, and 101 respondents (61.6%) strongly agreed with the assertion that the company is compassionate and comforting when customers encounter problems. On the other hand, 19 respondents (19.6%) remained neutral to this statement, while 6 (3.7%) and 5 (3.1%) disagreed and strongly disagreed, respectively, with the notion that the company is compassionate and comforting during customer challenges.

Thirdly it was seen that 33(20.1%) and 114 participants accounting for 69.5%, strongly agreed as well as agreed, respectively, with the statement", 10 participants, that is approximately 6% were indifference about the opinion, 7(4.3%) of them disagreed to the claim and none of the participants were in extreme disagreement

Fourthly the table showed that 28(17.1%) and 121 participants, accounting for (73.8%) strongly agreed and agreed, respectively, with the statement; they deliver their services within the specified timeframes, 11(6.7%) had no opinion on the statement, 4(2.4%) disagreed to the statement while none strongly disagreed to the fact that they deliver their services within the specified timeframes

Finally the results shown on the table above indicates that 22(13.4%) of the respondents strongly agreed, 103(62.8%) agreed to the statement The staff are dependable, 21(12.8%) neither agreed or

disagreed to the statement The staff are dependable, 15(9.1%) disagreed and 3(1.8%) strongly disagreed to the statement The staff are dependable.

Service Assurance

Table of frequencies and percentages was used to show the respondents' opinions on service Assurance as shown on the Table below.

Table 4. 4: Respondents opinion on service assurance

Service Assurance	SA	%	A	%	U	%	D	%	SD	%
Employees should be trustworthy	17	10.4	119	72.6	17	10.4	7	10.3	4	2.4
Clients should experience a sense of security when engaging in transactions with employees	37	22.6	105	64.0	11	6.7	7	4.3	4	2.4
Employees should be polite	45	27.4	101	61.6	10	6.1	7	4.3	1	0.6
The company should offer sufficient assistance to its employees for better Performance	47	28.7	99	60.4	10	6.1	7	4.3	1	0.6

Source; field data 2023

it was seen that 17(10.4%) and 119 participants accounting for 72.6%, strongly agreed as well as agreed, respectively, with the statement Employees should be trustworthy, while 7(10.3%) and 4(2.4%) disagreed and strongly disagreed respectively to the statement Employees should be trustworthy while 17(10.4%) were neutral to the statement.

Secondly the results showed that 37(22.6%) and 101 that is about 61.6% of the sampled individuals accept and strongly accept respectively to the statement Customers should experience a sense of security when conducting transactions with the company's employees, 11(6.7%) of the respondents were neutral to the statement, 7(4.3%) and 4(2.4%) disagreed and strongly disagreed to the statement Employees should be trustworthy respectively.

Thirdly it was seen that 45(27.4%) and 101(61.6%) constituting participants affirmed as well as strongly affirmed the accession Employees should be polite, 10 of them were indifferent and 7 of them, that is 4.3% refused the claim. However, none of them was in strong disagreement that Employees should be polite

Finally the results shown on the table above indicates that 47(28.7%) of the respondents strongly agreed, 99(60.4%) agreed to the statement The company should provide sufficient support to its employees to enable them to perform their job effectively, 10(6.1%) neither agreed or disagreed to the claim, 7(4.3%) disagreed and 1(0.6%) strongly disagreed to the claim that; employees ought to receive ample support from the company to excel in their roles.

Service Tangibility

Table of frequencies and percentages was used to show the respondents' opinions on service Tangibility as shown on the Table below.

Table 4. 5: Respondents opinion on service tangibility

Service Tangibility	SA	%	A	%	U	%	D	%	SD	%
Employees are well dressed and neat	57	34.8	101	61.6	4	2.4	2	1.2	0	0.0
The physical facilities look in accordance with the type of services offered	17	10.4	134	81.7	6	3.7	4	2.4	3	1.8
Physical facilities are visually appealing	18	11.0	134	81.7	6	3.7	6	3.7	0	0.0

| Up-to-date records | 9 | 5.5 | 144 | 87.8 | 9 | 5.5 | 1 | 0.6 | 1 | 0.6 |

Source; field data 2023

Based on the findings as seen on the table firstly it was seen that 17(10.4.0%) and101 (61.1%) making up participants firmly affirmed as well as affirmed the accession Employees are well dressed and neat, while 2 making up 1.2% and 0.0% disagreed and strongly rejected respectively to the claim Employees are well dressed and neat while 4(2.4%) were neutral to the statement.

Secondly the results showed that 17(10.4%) and 134(81.7%) of the respondents agreed and strongly agreed respectively to the assertion that The physical facilities look in accordance with the type of services offered, 6 making up (3.7%) of the participants were neutral to the claim, 4(2.4%) and 3(1.8%) disagreed and strongly disagreed to the claim The physical facilities look in accordance with the type of services offered respectively.

 Thirdly it was seen that 18(27.4%) and 134(81.7%) constituting participants firmly affirmed as well as affirmed the accession Physical facilities are visually appealing, 6(3.7%) had a neutral opinion to the statement, while 6(3.7%) of the respondents disagreed to the statement and none of the respondents strongly disagreed that Physical facilities are visually appealing.

Finally the results shown on the table above indicates that 9(5.5%) of the respondents strongly agreed, 144(87.8%) agreed to the statement E Up-to-date records, 9(5.5%) neither agreed or disagreed to the statement Up-to-date records, 1(0.6%) disagreed and 1(0.6%) strongly disagreed to the statement Up-to-date records.

Service Empathy

Table of frequencies and percentages was used to show the respondents' opinions on service Empathy as shown on the Table below.

Table 4. 6: Respondents opinion on service empathy

Service Empathy	SA	%	A	%	U	%	D	%	SD	%

They respond promptly to customer requests	18	11.0	136	82.9	5	3.0	4	2.4	1	0.6
Employees are always willing to help customers	14	8.5	135	82.3	7	4.3	4	2.4	4	2.4
Prompt services offered by the employees	32	19.5	116	70.7	11	6.7	3	1.8	2	1.2
They are expected to tell customers exactly when the service will be performed	27	16.5	128	78.0	5	3.0	3	1.8	1	0.6

Source; field data 2023

In respect to the findings as seen on the table firstly it was seen that 18(11.0%) and 138(82.9%) constituting participants firmly affirmed as well as affirmed the accession They respond promptly to customer requests, while 4(2.4%) and 1(0.6%) disagreed and strongly disagreed respectively to the statement that They respond promptly to customer requests while 5(3.0%) were neutral to the statement.

Secondly the results showed that 14 (8.5%) and 135 (82.3%) segment of participants firmly agreed as well as affirmed the accession Employees are always willing to help customers, 7 (4.3%) of the participants were impersonal to the assumption, 4(2.4%) and 4(2.4%) disagreed and strongly disagreed to the statement Employees are always willing to help customers.

 Thirdly it was seen that 32 (19.5%) and 116 (70.7%) constituting participants firmly agreed as well as affirmed the judgment Prompt services offered by the employees, 11 (6.7%) had a neutral opinion to the statement, while 3 (1.8%) of the participants differed to the statement and 2(1.8%) of the respondents strongly differed that Prompt services offered by the employees

Finally the results shown on the table above indicates that 27 (16.5%) of the respondents strongly agreed, 128(78.0%) agreed to the statement They are expected to tell customers exactly when the

service will be performed, 5 (3.0%) neither agreed or disagreed to the statement They are expected to tell customers exactly when the service will be performed, 3 (1.8%) disagreed and 1(0.6%) strongly disagreed to the statement They are expected to tell customers exactly when the service will be performed .

Service Responsiveness

Table of frequencies and percentages was used to show the respondents' opinions on service Responsiveness as shown on the Table below.

Table 4. 7: Respondents opinion on service responsiveness

Service Responsiveness	SA	%	A	%	U	%	D	%	SD	%
They respond promptly to customer requests	19	11.6	133	81.1	8	4.9	3	1.8	1	0.6
Employees are always willing to help customers	16	9.8	129	78.7	11	6.7	3	1.8	5	3.0
Prompt services offered by the employees	3	1.8	132	80.3	11	6.7	4	2.4	2	1.2
They are expected to tell customers exactly when the service will be performed	14	8.5	127	77.4	13	7.9	6	3.7	4	2.4

Source; field data 2023

In regards to findings as seen on the table firstly it was seen that 19 (11.6%) and 133 (81.1%) segment of participants firmly affirmed as well as agreed the accession They respond promptly to customer requests, while 3(1.8%) and 1(0.6%) disagreed and strongly disagreed respectively to the statement Employees should be trustworthy while 8 (4.9%) were neutral to the statement.

Secondly the results showed that 16 (9.8%) and 129 (78.7%) constituting participants firmly affirmed as well as affirmed the verdict Employees are always willing to help customers, 11(6.7%) of the

respondents were neutral to the statement, 3(1.8%) and 5 (3.0%) disagreed and strongly disagreed to the statement the statement Employees are always willing to help customers respectively.

 Thirdly it was seen that 3 (1.8%) and 132(80.3%) marking up participants firmly agreed as well as affirmed the accession Prompt services offered by the employees, 11 (6.7%) had a neutral opinion to the statement, while 4(2.4%) of the participants differed to the claim and 2(1.2%) of the partakers strongly differed that Prompt services are offered by the employees.

Finally the results shown on the table above indicates that 14 (8.5%) of the respondents strongly agreed, 127 (77.4%) agreed to the statement Workers should receive enough assistance from the company to do their jobs effectively, 13(7.9%) neither agreed or disagreed to the statement Workers should receive enough assistance from the company to do their jobs effectively, 6(3.7%) disagreed and 4 (2.4%) strongly disagreed.

Customer Satisfaction

Table of frequencies and percentages was used to show the respondents' opinions on Customer Satisfaction as shown on the Table below.

Table 4. 8: Respondents opinion on customer satisfaction

Customer Satisfaction on real-estate sector	SA	%	A	%	U	%	D	%	SD	%
I would like to recommend this firm to friends and people I know	14	8.5	139	84.8	4	2.4	4	2.4	3	1.8
I consider myself to be loyal to this firm	24	14.6	127	72.4	6	3.7	5	3.0	2	1.2
The performance of this firm is superior to that of competitor's one	18	11.0	134	81.7	7	4.3	2	1.2	3	1.8

Am completely satisfied with the services delivered by this Firm	14	8.5	125	76.2	14	8.5	8	4.9	3	1.8

Source; field data 2023

In regards to findings as seen on the table firstly it was seen that 14 (8.5%) and 139 (84.8%) constituting participants, firmly agreed as well as affirmed the inquiry "I would like to recommend this firm to friends and people I know", while 4 (2.4%) and 3 (1.8%) disagreed and strongly disagreed respectively to the statement I would like to recommend this firm to friends and people I know while 4 (2.4%) were neutral to the statement.

Secondly the results showed that 24(22.6%) and 14.6(61.6%) of the participants approved and powerfully approved respectively to the claim I consider myself to be loyal to this firm, 6 (3.7%) of the respondents were neutral to the statement, 5 (3.0%) and 2(1.2%) disagreed and strongly disagreed to the statement I consider myself to be loyal to this firm respectively.

Thirdly it was seen that 18 (11.0%) and 134 (81.7%) constituting respondents; firmly affirmed as well as affirmed the inquiry The performance of this firm is superior to that of competitor's own, 7 of them, that is 6.1% were indifferent to the assertion, while 1(1.2%) of the respondents disagreed to the claim and 3(1.8%) of the participants strongly refused that The performance of this firm is superior to that of competitor's one.

Finally the results shown on the table above indicates that 14 (8.5%) of the respondents strongly agreed, 125(76.2%) agreed to the statement Am completely satisfied with the services delivered by this Firm, 14(6.1%) neither agreed or disagreed to the statement Am completely satisfied with the services delivered by this Firm, 8(4.1%) disagreed and 3(1.8%) strongly disagreed

Multiple Correspondence Analysis for construction of the indexes

Six overall indexes were established employing MCA Correspondences; since the items utilized were categorical in nature.. The table below gives the synopsis summary of the indexes computed using Multiple Correspondence Analysis.

Table 4. 9: Summary of synopsis of MCA; analysis for indexes construction

Dimensions	Principal inertia	Percent %	Cumul percent %
Service Reliability index; axes=2			
Dim 1	0.073926	91.9	91.9
Dim 2	0.005144	6.4	98.3
Dim 3	0.001368	1.7	100
Total	0.080438	100	
Service Assurance index; axes=2			
Dim 1	0.074726	72.2	79.2
Dim 2	0.019590	20.7	90.9
Dim 3	0-.000075	0.1	100
Total	0.094391	100	
Service tangibility index ;axes=2			
Dim 1	0.073523	92.5	92.5
Dim 2	0.004669	5.9	98.4
Dim 3	0.001291	1.6	100
Total	0.079483	100	
Service Empathy index; axes=2			
Dim 1	0.044111	80.2	80.2
Dim 2	0.010512	19.5	99.3
Dim 3	0.000392	0.7	100
Total	0.055015	100	
Service Responsiveness index; axes=2			
Dim 1	0.117957	54.2	54.2
Dim 2	0.080185	36.8	91.0
Dim 3	0.019674	9.0	100

Total	0.217816	100	
Customer satisfaction index; axes=2			
Dim 1	0.170536	68.2	68.2
Dim 2	0.064592	25.8	94.1
Dim 3	0.014745	5.9	100
Total	0.249872	100	

Source; field data 2023

As illustrated in the results in respect to MCA, 6 indexes were established using two axes.

The service reliability index was impacted by three dimensions that together accounted for an overall primary inertia of 0.080438,. At a primary inertia of 0.073926, the first dimension was a major contributor, accounting for 91.9% of the Service Reliability Index. By comparison, the second dimension and its corresponding primary inertia contributed 6.4% to the Service Reliability Index. the third dimension contributed 1.7% to service Reliability index with a principal inertia 0.001368

Service Assurance index, was predicted using three dimensions with the first dimension contributing to 79.2% contributed to service assurance upholding a principal inertia amounting to 0.074726. The primary inertia of the second dimension, which contributed 20.7%, was 0.019590 similarly, the last dimension, with a primary inertia of 0.000075, had the least effect, adding only 0.1% in regards to service assurance.

Three dimensions therefore contributed to service empathy, service responsiveness and customer satisfaction as seen in the figure above.

Descriptive Statistics

Table 4. 10: Synopsis of the variables' descriptive statistics

Variables	Obs	Mean	Std. Dev	Min	Max
Service Reliability	164	1.99	0.759	0.654	0.926

Service Assurance	164	2.16	0.759	0.463	1.305
Service Tangibility	164	1.70	1.277	-0.939	1.942
Service Empathy	164	1.99	1.243	0.342	1.250
Service Responsiveness	164	1.99	1.253	0.403	0.569
Customer Satisfaction	164	2.04	0.610	-0.642	1.093

Source: Computed by author, field data 2023

From table 4.12, it is indicated that the mean value for service Reliability was 1.99 with a standard deviation 0.759 which shows that there is no moderate variability in the values of service reliability.

Also Service Assurance ranges from a minimum standard deviation of 0.463 and a maximum standard deviation value of 1.305, with a mean value of 2.16. Also Service Tangibility had a mean value of 1.70 as well as a standard deviation 1.277, indicating -0.939 as representative minimum value as well as 1.942 maximum value, Service Empathy ranges from 0.342 minimum value to 1.250 maximum value. And also Service responsiveness reviled 1.99 as its mean value as well as 1.253, standard deviation; moreover, customers' satisfaction indicated a standard deviation of 0.610 as well as mean value of 2.04

To determine whether there were any significant correlations between the independent variables—which might suggest multicollinearity in the model—a correlation analysis was conducted before testing the model stated in chapter three.

Pairwise correlations

Table 4. 11: Pairwise correlation' matrix

	Service Reliability	Service Assurance	Service Tangibility	Service Empathy	Service Responsiveness
Service Reliability	1				

Service Assurance	0.75	1			
Service Tangibility	0.684	0.744	1		
Service Empathy	0.653	0.681	0.866	1	
Service Responsiveness	0.831	0.642	0.840	0.743	1

Source: field data 2023

The results from the pairwise correlation as indicated in prior table, reveals a substantial correlation amid independent variable (Reliability including Assurance,

Tangibility, Empathy as well as Responsiveness) as all the correlation coefficients exceed the threshold value of 0.7.

Regression Analysis

Table 4. 12: Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.277[a]	.077	.054	.528
a. Predictors: (Constant), Reliability, Assurance, Tangibility, Empathy, Responsiveness				

Source: Computed by author, field data 2023

The specification of the five variables; Reliability of services, Assurance, Service Tangibility, Empathy as well as Responsiveness in the theory revealed their combined effect on customer satisfaction (R^2=0.077). In this model an R^2 value of 77% of the observed variability in customer satisfaction.

Table 4. 13: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
ANOVA[a]						
1	Regression	7.818	5	1.564	4.737	.000[b]
	Residual	52.158	159	.330		
	Total	59.976	164			
a. Dependent variable; (customer satisfaction)						
b. Predictors;- constant (reliability including tangibility, assurance, empathy as well as reliability						

Source: Field data 2023

This variance is highly significant as indicated by the F value (F=4.737 and P<0.000) and an examination of the model summary in conjunction with Analysis of ANOVA indicates that the model explains the most possible combination of predictor variables that could contribute to the relationship with the dependent variable. The aggregate significance assessment of all the variables in the model is highly significant at 5% level (P< 0.05), as indicated by the computed p-value of 0.00. This implies that the variables have a significant impact on the model's prediction.

Table 4. 14: Coefficients

Model		Unstandardized coefficients		Standardized coefficients	-t	-Sig.
Coefficients						
		B	-Std,Error	-Beta		
1	-Constant	.991	.267		3.709	.000
	Reliability	.156	.066	.169	2.158	.039
	Assurance	.130	.055	.178	2.391	.018
	Tangibility	.243	.073	.266	3.315	.001

	Empathy	.155	.063	.265	2.276	.038
	Responsiveness	.112	.071	.113	2.274	.024
a. Dependent Variable: Customer Satisfaction						

Source: Field data 2023

Link between client happiness as well as service reliability; the correlation between a one-unit improvement in Service Reliability and a matching rise in customer satisfaction is indicated by the favorable coefficient of 0.169. Considering that the likelihood value (0.039) is smaller than 0.05, the results are also considered significant at the 5 percent level. This supports the finding that service reliability affects customer satisfaction in a significant and direct way as well as substantial influence of Reliability of services on client contentment.

The outcomes further indicate that the coefficient for Assurance is positively estimated at 0.178, indicating a favorable impact of service Assurance on customer satisfaction. This implies that an escalation in the value of Assurance is associated with an increase in client happiness. Additionally, the results are highly significant at the 1% level, given that the probability value (0.018) is less than 0.01. Consequently, these findings emphasize a positive and statistically significant effect of Service Assurance on customer satisfaction.

According to the investigation, service tangibleness has a positive estimated coefficient of 0.266, which suggests that it has a positive effect on customer satisfaction. This implies that a rise in customer satisfaction is proportional to a one-unit rise in the value of service tangibleness. Furthermore, with a likelihood value of 0.001, or less than 0.01, these outcomes are exceptionally significant at the 1% level. As a result, the results highlight the favorable and statistically significant impact of Service Tangibility on client satisfaction.

The analysis reveals that the coefficient for Service Empathy is positively estimated at 0.265, indicating a positive influence of Service Empathy on customer satisfaction. This implies that an increase in the value of Empathy is associated with an increase in customer happiness. Moreover, these results are

statistically significant at the 1% level, with a probability value of 0.038, which is less than 0.01. Hence, the findings affirm a positive and statistically significant impact of Service Empathy on customer satisfaction.

The results of the data analysis show that service responsiveness has a positive estimated coefficient of 0.113, indicating a positive effect on customer satisfaction. According to this, a rise in customer satisfaction is correlated with an increase of one unit in regards to the value of service responsiveness. These outcomes also have a likelihood ratio of 0.024, which is below the threshold of 0.01, and are highly significant at the 1% level. Consequently, the findings highlight how responsiveness to consumer needs has a constructive as well as substantial influence on satisfaction of customers. The model for this study is therefore represented as

CS= 4.737 +0.169Service Reliability +0.178Service Assurance+ 0.266 Service Tangibility + 0.265Service Empathy+ 0.113 Service Responsiveness +£

Discussion of Findings

This study is designed to analyze the effect of service quality on customer satisfaction in real estates in Nigeria.

H1: Service Reliability has a substantial impact on client satisfaction with real Estate Consumer in Nigeria

Results from the regression analysis showed an observed significant effect of service reliability on customer satisfaction supports Hypothesis One (H1), which posited that Service Reliability has a substantial impact on customer fulfillment within the real estate consumer context. The data analysis results affirm the validity of this hypothesis by demonstrating a statistically significant relationship between service reliability and customer satisfaction in the real estate industry in Nigeria. The findings of this study go a long way to agree with the findings of Muhamud, (2017) whose findings from his study to find out the relationship between service quality and customer satisfaction, indicate that

service quality affects customer satisfaction especial service reliability this is because it makes customers confident to invest more since the services are consistent and efficient.

H2 Service assurance significantly influence customers' satisfaction on real estate consumers in Nigeria

The outcomes of the Ordinary Least Squares (OLS) estimation outlined above provide evidence supporting Hypothesis Two (H2) of the study. This hypothesis posited that Service Assurance has a significant effect on customer satisfaction within the context of real estate consumers in Nigeria. The statistically significant effect observed in the results confirms the validity of Hypothesis Two, suggesting that Service Assurance indeed plays a significant role in influencing customer satisfaction in the real estate sector in Nigeria. The findings of this work agrees with that of Kuo et al, (2009) concluded that service quality positively affects customer satisfaction and loyalty, especially service assurance.

H3: Service Tangibility has a substantial impact on customer satisfaction with real Estate consumers in Nigeria.

The claim stated in the study's third hypothesis (H3) is supported by the findings of the Ordinary Least Squares (OLS) estimate. According to this hypothesis, service tangibleness significantly affects customer satisfaction in the Nigerian real estate consumer setting. Hypothesis Three is supported by the highly significant influence in the OLS results, which indicates that Service Tangibility has a considerable effect on client gratification in the Nigerian real estate business. The findings of this work agree with that of Ananth et al., (2010). They also concluded from the study that service tangibility plays an important role when it comes to customer satisfaction and loyalty.

H4: Service Empathy has a substantial impact on customer satisfaction with real Estate Consumer in Nigeria

Results from the regression analysis The analysis's remarkable finding, which points to a connection between client contentment and service empathy, validates the study's fourth hypothesis (H4). In the

context of real estate consumers, Hypothesis Four proposed that Service Empathy significantly impacts client happiness. The data analysis's empirical evidence supports the validity of H4, indicating that customer happiness in the real estate industry is significantly influenced by service empathy., stating that Service Empathy has had a weighty impact on client fulfillment with real Estate Consumer in Nigeria. The findings concurred with those of Ismail, et al., (2006), who found out that clients expect service providers to be more caring, by providing reliable services with individualized attention to get customer confidence.

H5: Service Responsibility has a major impact on customer contentment with real Estate Consumer in Nigeria

The significant effect observed in the Ordinary Least Squares (OLS) estimation, specifically the relationship between service responsiveness and customer satisfaction, provides support for Hypothesis Five (H5) of the study. Hypothesis Five posited that Service Responsiveness has a significant effect on customer satisfaction within the real estate consumer context in Nigeria. The empirical findings from the OLS estimation affirm the validity of H5, indicating that Service Responsiveness indeed has a significant impact on influencing customer satisfaction in the real estate sector in Nigeria.. Similarly, the outcome of the investigation concurred with Saghier et al., (2013) , whose study concluded that the ability of the service provider to be responsive to their customer needs contribute greatly to customer satisfaction.

Conclusions

The results of the research showed that factors of service quality used in this study which includes Service Reliability, Assurance, Tangibility, Empathy, and Responsiveness all contribute positively to customer satisfaction with real Estate consumers in Nigeria. These findings conclude that the SERVQUAL model could be used by real estate companies to improve on customer satisfaction

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Exploring the Impact of Customer Perceived Value on Customer Satisfaction Amongst Students: Case of *Gloria Jeans Coffee Shop in Kyrenia, Northern Cyprus*

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Abstract

Understanding the complex relationships between customer satisfaction (CS) and customer perceived value (CPV) is essential for businesses looking to not only survive but also grow and make a lasting impact in the fiercely competitive coffee shop industry, where every interaction and sip counts. A great deal of research has been done to explore the complex interaction between these variables, revealing the elements that contribute to customers' total happiness. This study investigates the connection between Gloria Jean's coffee shop customers' perceived value (CPV) and customer satisfaction (CS). Structured questionnaires were utilized to gather primary data for the study, which followed a quantitative descriptive research design. A sample of 230 individuals was chosen from the population of the study using convenience sampling technique, which consisted of all GAU students who had visited Gloria Jean's coffee shop and had a positive experience. The estimated number of these students was 448. Regression analysis helped to ascertain the relationship between the variables when data was analyzed using the SPSS software. According to the study, there is a considerable and positive correlation between price, product/service quality, physical environment, and customer satisfaction. According to the findings, improving these elements helps to raise customer happiness. The study offers useful advice to coffee shop owners who want to maximize customer satisfaction by managing customers' perceived value effectively.

Keywords: customer perceived value, customer satisfaction, price, service quality and product quality

Introduction

The 80th biggest island in the world according to (Pashiardis et al., 2023), is Cyprus. It is situated in the Mediterranean with a land area of 9,251km². Cyprus with it fare climate (Hadjinicolaou et al., 2011) and the most important of all its political stability (Charalmbous & Ioannou, 2017), has

attracted the eyes of many around the globe ranging from tourist (Katircioglu et al., 2007) who come to enjoy the beautiful island with its clean water bodies, good natural attractive features as well as students who come in to pursue their educational programs (Ari, 2018) most of which come from Africa, Asia just to name a few. Some of the popular universities (Arslan & Güven, 2007) in the island are Girne American University, Eastern Mediterranean University, Cyprus International University just to name a few all of which dish out knowledge to students across the globe. Girne American University, which is the focal point based on its popularity and the quality of services it offers (Yi et al., 2014), will be the focal point for this study.

The global economy is characterized by fierce rivalry, and companies are always under pressure to match the expectations of their consumers by providing high-quality goods and services (Felix, 2015). As a result, posing an important element as far as evaluating performance and longevity attributed to a firm is concerned. Businesses must comprehend what influences customer happiness and how to raise it (Schneider et al., 1999). The value perceived by customers is one of the key elements affecting customer satisfaction (Mcdougall & Levesque, 2000).

Customer perceived value refers to the buyer's total assessment of what a good or service is worth while taking into account the expenses needed to produce it (Alex & Thomas, 2011) According to Asgarpour, Hamid, and Saliaman (2014), consumer perceptions of value are determined by evaluations made before, during, and after the consumption of the good or service. Prior studies (Seo & Um, 2022) have identified the primary variables impacting customer perceived value as being price, product quality and service quality. Again, customer satisfaction may be described as the level of joy or fulfillment a consumer feels following the consumption of a good or service (M.N.A. Raji & A. Zainal, 2016) It can be assessed either per transaction or cumulatively. Both customer perceived value and customer satisfaction are essential factors that have drawn the attention of researchers in recent times, either studied independently or linked together with other factors such as loyalty, profitability, etc (Talapatra et al., 2022). Many researchers have linked these two variables since they constitute essential elements for organizational success (Eggert and Ulaga, 2002; McDougall, 2000; Wallin Andreassen,

1998). This study aims to connect the two variables while being highly contextualized to Gloria Jeans coffee shop in the Kyrenia city center area of Northern Cyprus.

There exist criterions on which service quality is measured. Study uses the SERVQUAL model to give a thorough examination of the many aspects of service quality and how they affect customer satisfaction. Coffee businesses may utilize the research' conclusions to raise client satisfaction levels and improve the quality of their services.

We will not narrow scope to the three mentioned variables above but rather we will try to examine and see if the physical environment can as well affect customer perceived value on customer satisfaction. In the study of customer behavior (Animashaun et al., 2016) and service marketing (Williams & Wang, 1985), the physical setting of an establishment has drawn considerable attention (Ryu & Han, 2011). It speaks about the observable features of a commercial environment that clients may experience with their five senses. These components include the physical space's organization, beauty, cleanliness, comfort, and ambience (Ertzberger, 2009).

The influence of the physical environment on consumer perceptions and actions has been highlighted in several research. A physical environment that is well-designed and maintained may improve how valuable customers consider it to be and increase customer satisfaction (Ali, F., Omar, R. and Amin, 2013). It makes a good first impression and prepares the ground for successful interactions between clients and companies (Riel & Fombrun, 2007).

The physical environment can influence customer perceived value by shaping their overall assessment of the service or product offering (Baker et al., 2002). For instance, in a retail store, an aesthetically pleasing and well-organized interior can convey a sense of quality and value. Customers may perceive higher value in a store that invests in creating a visually appealing environment compared to a store with a cluttered or unattractive layout (Son et al., 2021)

The physical surroundings can affect a customer's emotions, comfort, and well-being, according to research. Customers' emotional states and general contentment may be significantly impacted by a

welcoming and comfortable environment, adequate lighting, and relaxing background music (Iyendo et al., 2016). As an illustration, a restaurant may improve the client's experiences by promoting relaxation and enjoyment with soft lighting, comfortably seating, and a welcoming ambiance.

As a further indicator of service quality, the physical environment may be employed. Customers could associate a well-designed and well-maintained physical workplace with better professionalism, greater attention to detail, and superior service (Seo & Um, 2022). On the other hand, an untidy or uninviting environment could make people doubt the worth of the item or service being supplied (Muharrem EYİDOĞAN, Mustafa ÇANAKCI* & Ertan ALPTEKİN, Ali TÜRKCAN, 2009)

According to studies, a company's physical environment may affect the intentions and actions of its customers. Customers are more likely to spend more time, investigate items or services, and return if the physical atmosphere is welcoming and appealing.

Problem statement

Producers or organizations wish to achieve their objectives in cost minimization and profit maximization. So it will be a bone of contention to analyze and know the impacts of customer perceived value on customer satisfaction so it can drill the organization on which aspects she has strength and on which aspects she still need to improve on so as to meet the main objectives of cost minimization and profit maximization. Not leaving aside customers, they are interested in the best even with a limited budget since human beings are rational. As such this research is purposeful for both parties. With respect to this topic, different authors have written diverse thoughts based on their understanding of the topic at hand but most of the articles were mostly concerned with price, (PRASILOWATI et al., 2021) product quality (Alex & Thomas, 2011) as well as service quality (Bashir et al., 2020) to be the factors that are affecting customer perceived value on customer satisfaction. So to further expand the research, a physical environment which also stands out as an influencing element regarding customer perceived value was included. Numerous studies therefore have concentrated extensively on service quality, overlooking customer perceived value which stands as a key element of competitive advantage from the marketing and management perspective such as, (Alex & Thomas,

2011), (Kusumawati & Rahayu, 2020) and (Kim & Lee, 2017). We therefore concentrated on investigating specifically the influence of customer perceived value on the satisfaction of Gloria Jeans' customers

Research questions

The main research question of this study was; does customer perceived value influence customer Satisfaction in Gloria Jeans coffee shop in Kyrenia North Cyprus?

Specific research questions

Does price affect customer satisfaction in Gloria Jeans coffee shop in Kyrenia North Cyprus?

Does service quality affect customer satisfaction in Gloria Jeans coffee shop in Kyrenia North Cyprus?

Does product quality affect customer satisfaction in Gloria Jeans coffee shop in Kyrenia North Cyprus?

Does the physical environment affect customer satisfaction in Gloria Jeans coffee shop in Kyrenia North Cyprus?

Main Research Objective

The overall goal of this study is to offer insightful information on the influence of customer perceived value on customer satisfaction at Gloria Jeans coffee shops in the Kyrenia city center area.

Specific research objectives

To Examine the influence of product quality on customer satisfaction

To Examine the influence of price on customer satisfaction

To Examine the influence of service quality on customer satisfaction

To Examine the influence of physical environment on customer satisfaction

Significance of the study

The study can help coffee shops develop and succeed in the fiercely competitive food and beverage business by identifying the major factors that affect customer satisfaction and making suggestions for improvement

The study can as well help as literature review for future studies related to the impacts of customer perceived value on customer satisfaction.

In a highly competitive market, coffee shops that effectively leverage insights from this research to enhance their physical environment may gain a competitive advantage. This could result in increased customer loyalty, positive word-of-mouth, and ultimately, improved business performance. The findings of this research can provide coffee shop owners and managers with strategic insights. Understanding how the physical environment contributes to customer perceived value and satisfaction can inform decision-making related to store layout, ambiance, and overall customer experience.

The physical environment is often considered an indicator of service quality. This research can validate or refine such indicators, providing a nuanced understanding of how the physical setting contributes to customers' assessments of service quality. Insights from this research can guide coffee shops in optimizing their service design. From aesthetics to functionality, a well-designed physical environment aligns with positive perceptions of service quality, ultimately influencing customer satisfaction.

Literature Review & Hypothesis Development

Customer Perceived Value

Boksberger & Melsen, (2011) highlighted that the various measurements of customer perceived value are made up of the functional value (anything the product or service does), emotional value, and lastly social value. Chiu et al., (2014) clarifies functional value as the measurement of perceived value where there is the expectation of purchase. While with the emotional part of perceived value one makes

interest towards a specific product and sees it inwardly. Callarisa Fiol et al., (2009) social perceived value has to do with the firm's social awareness such as the it's reputation and it is a very important factor taken into consideration in decision making. They are equally precise that social perceived value is made up of two aspects which is the social image that the firm portrays and the firm's reputation. This notwithstanding, in this study, focus will be on the overall customer perceived value impacting customer satis

This strategy has been found to be of major importance to the ravaging growth of coffee shops in Australia (Chen & Hu, 2010) as additional benefits associated to the firm's product and services leads to organizational success (Asgarpour et al., 2014) As earlier discussed in our introduction the components of perceived value consist of price, product quality, service quality and the physical environment (Asgarpour et al., 2014); PRASILOWATI et al., (2021); (Hyun & Han, 2012). The following paragraphs explain in detail each of the factors.

Price
One of the key elements that affects how customers behave is price. Pricing significantly affects how customers perceive value, quality, and satisfaction (Huang et al., 2014). Customers often link more expensive items with greater quality and less expensive things with inferior quality. Customers could, however, see a fall in price as an indication of a bargain or a reasonable price, which might favorably influence their purchasing choices . The study also demonstrates that when a good or service fails to differentiate itself from the competition, customers are more likely to be price sensitive ("Editorial Board," 2021)

 The influence of price on how customers perceive value is critical in that, Clients require a significant amount of money in exchange for an item or service (Tâm et al., 2016). Customers frequently sense value when they believe the price they pay is fair considering the caliber of the commodity or service they receive. Price may also play a key role in deciding how pleased consumers are given that customers typically anticipate fair and reasonable pricing (Müller & Georg, n.d. 2018).

The value of a product plays a vital role in the minds of consumers. They are often willing and prepared to go for an extra quantity of a product they deem of value, this is as seen in many research. For example, in 2015, Perrea et al., launched a research to examine the behavior of consumers with wine consumption. They discovered that consumers were ready to pay an extra dime for a bottle of wine given they were informed of its quality. Purchasers were willing to pay more for a camera when they believed it had more functions (Daziano et al., 2017). However it's not always obvious how price and customers' perceived value are related. Even when a product or service is less expensive than its competitors, individuals may occasionally have strong opinions about it (Chiu et al., 2014). This is because purchasers examine a number of factors, including price, when deciding the overall value of a good or service. Customer perceptions of value may be significantly impacted by customer service, quality, and other factors (Boksberger & Melsen, 2011).

Product Quality

Torrico et al., (2018) the product-based approach defines product quality as an exact and quantifiable variable whereby the changes in qualities reflect differences in the amount of some components and features possessed by a product. Product quality has a very determining role in consumers purchasing choices and it is a major element in sustaining long-term relations with customers (Dian & Prajanti, 2019). Therefore, it is the overall decision of value since the greater the perceived product quality is, the higher the levels of perceived value. This concept of product quality is a call for concern to restaurants because consumer demand is highly sensitive to changes in product quality (Economics et al., 2014) Both service and product quality are categories of perceived quality (Suchánek et al., 2014). The extent to which a product meets or exceeds a customer's expectations is referred to as product quality. According to Chou et al., (2020)) after conducting a study on product quality, they discovered that the key element determining consumer behavior is product quality. Customers regularly attribute goods of higher quality to greater customer loyalty and contentment or satisfaction. Additionally, people are more drawn to pay an extra dime for a product that they believe to be of good quality given that high quality products are deemed to be price-sensitive (Alex & Thomas, 2011).

Customer perceptions of value and satisfaction are significantly influenced by product quality. thinking of a product's features, longevity design as well as the trustworthiness of a product (Dian & Prajanti, 2019). it is crucial to take into consideration the quality degree. This is because the value as well as experience that customers encounter with respect to a product, rely primarily on the quality of the product. According to research, better levels of customer loyalty and satisfaction are correlated with higher product quality (Naini et al., 2022).

Service Quality

The delivery of predominant quality is quickly expanding as a major point used by service firms to place themselves in their respective industries (PRASILOWATI et al., 2021) Restaurant service quality is among the factors that make up consumer's consumption experience (Hyun & Han, 2012). Similar to price, customers evaluate service quality in accordance with the concept of fairness Chapman,1986 as cited in Asgarpour et al., (2014) since their view of service quality emanates from evaluating what was experienced against what they expected as referred by (Chow et al., 2007). Moreso, it has an essential ability since it is an important influence that supports competitive advantage in service firms (Palmer, 2001 as cited in (Chow et al., 2007) Therefore, as part of a strategy, organizations ought to focus on rendering more elevated levels of service quality to their consumers so as to be more competitive and have a better stand in the industry (PRASILOWATI et al., 2021). According to Seo & Um, (2022) services are more often intangible, usually made up of activities and the customer may participate in the production process to a certain extent.

 (Jeon & Jeong, 2017), outlined criterions or frameworks on which can be used to measure the service quality of a business. According to this criterion, there are two variables that play a leading role in the measurement. That is, consumer's expected service as well as perceived service. Agarwal et al., (2022) were also some of the authors that stepped in to say something. They brought up a criterion which they called it as the gap model in which according to them, service quality is measured by the gap that exists between expected service of a consumer and the actual service that the consumer experiences (Chinomona et al., 2014). They outlined ten different dimensions on which it is measured. These are;

understanding the customer, access, reliability, security, communication, responsiveness, credibility, competence, tangibles and courtesy. Five of these ten mentioned above have been shortlisted to form the SERVQUAL measurement model. The shortlisted five are; empathy, access, tangibles, reliability and responsiveness. Gopi & Samat, (2020) as well, they came up with the SERVPERF measuring model for service quality. This model was judged to measure service quality accurately more than the SERVQUAL. Services ought to be just in time to avoid any form of delays as customers who felt the services are delayed or that they have to pay an extra for the services will not be motivated to come back (Afthanorhan et al., 2019).

Physical Environment

Human beings react with the physical environment either by means of approach or avoidance (Han & Ryu, 2009). They further explain that while the approach is a positive response to the environment expressed by the desire to stay, avoidance is the negative response for example expressed by the desire to leave. Characteristics of the physical environment in restaurants for example, the stylistic layout, surrounding conditions and seating arrangements provide clients with the expected services and perceived value (Ryu & Han, 2011). The term "physical environment" describes the location in which a service is rendered or a product is bought. According to Iyendo et al., (2016) research, the physical environment has a big impact on how satisfied and loyal customers are. The physical environment can be measured in terms of ambient conditions, spatial layout, and functionality. Customers who perceive a nice physical environment are more likely to be satisfied and brand loyal (Çetinsöz, 2019).

A company's physical space has a significant impact on how well customers are treated. It contains specifics such as the architecture, decor, lighting, and cleanliness of the real space (Lockwood & Pyun, 2020). A well-planned and well-maintained physical environment can assist to boost customer satisfaction, whereas a badly designed or managed physical environment can have a negative impact on the customer experience (Felix, 2015).

The hotel sector is one illustration of the value of the physical environment. Customer happiness and loyalty in hotels may be significantly impacted by the physical environment. According to studies, a

customer's assessment of the hotel's quality and their entire experience can be influenced by things like the design, lighting, and cleanliness of their room (Wibisono et al., 2022). The hotel sector is one illustration of the value of the physical environment. Customer happiness and loyalty in hotels may be significantly impacted by the physical environment (Shinegi & Widjaja, 2022). According to studies, a customer's assessment of the hotel's quality and their entire experience can be influenced by things like the design, lighting, and cleanliness of their room (Mohd Ali et al., 2023).

Satisfaction

The competitive environment inherent in the restaurant sector makes it important for firms to make their customers satisfied so as to remain in the market over the long haul. Satisfied customers are absolutely captivated by goods and services provided (Putri Dahlan et al., 2023). Castillo & Del Río, (2023) explained customer satisfaction as a technique of client's response to the evaluation of the obvious divergence between prior wants and real execution of the product as noted after its utilization.

According to Han & Ryu, (2009), the major customer satisfaction determinants in restaurants are: the environment, service received during meal, physical provisions and the food itself (Alfiani & Rachmawati, 2020), state that firms have to be customer oriented and the usage of the primary standards of persistent improvement justify the significance of assessing and analyzing customer satisfaction.

The competitive nature of the restaurant sector necessitates a keen focus on customer satisfaction as a strategic imperative for businesses aiming to thrive in the long term (Kwame Opoku et al., 2023). Satisfied customers form the bedrock of a successful business, as they become not just repeat customers but also enthusiastic advocates for the goods and services provided (Kamran-Disfani et al., 2017). In essence, customer satisfaction represents the fulfillment of the customer's expectations based on the perceived performance of a product or service after its consumption.

Customer satisfaction in the restaurant sector is influenced by a multifaceted interplay of factors. Among these, the following determinants have been identified as key drivers of customer satisfaction: the Environment the ambiance and atmosphere of a restaurant significantly impact a customer's overall

dining experience (Iyendo et al., 2016). Factors such as lighting, decor, seating arrangements, and the general feel of the restaurant contribute to the environment. A pleasant and well-designed environment can enhance customer satisfaction (Hyun & Han, 2012).

These determinants collectively shape the customer's perception of value and overall satisfaction with their dining experience. Thus, it is imperative for restaurants to meticulously address these factors to foster customer contentment. The importance of satisfaction of customers in this industry, that is the restaurant sector, is the same as in any other sector cannot be overemphasized on (Castillo & Del Río, 2023).

Customer Perceived Value and Satisfaction

The relationship between customer perceived value and customer satisfaction is a nuanced one, often overlooked in some models of customer satisfaction. The study has highlighted the distinct yet interrelated nature of these concepts (Mainardes & Freitas, 2023).

Awareness-Based Customer Value:

Customer perceived value can be considered an awareness-based concept. It considers both the perceived difference between what a consumer receives and what they're offering out, in addition to the actual advantages or benefits they anticipate from a good or service. Essentially, it is an assessment that represents the client's estimation of the benefits they receive in relation to the drawbacks. This assessment frequently entails analyzing the benefits and drawbacks of a purchase psychologically (de Kervenoael et al., 2023) .

Evaluative Customer Satisfaction:

On the other hand, customer satisfaction is predominantly an evaluative reaction. It is the customer's emotional and cognitive response to their consumption experience. Customer satisfaction is a post-purchase evaluation that assesses whether the actual experience met, exceeded, or fell short of their

expectations. It involves the emotional reactions and judgments a customer forms based on their interaction with the product or service (Li et al., 2023).

Interplay Between Value and Satisfaction:

The order of events clearly illustrates the interaction between customer happiness and perceived value. The foundation for the customer's expectations is their view of value. When the actual experience aligns with or exceeds these expectations, customer satisfaction tends to be high (Nájera-Sánchez et al., 2022). On the other hand, if the perceived value is low, expectations may be modest, and even a basic experience can lead to satisfaction (Alex & Thomas, 2011). It's crucial to recognize that the link between customer perceived value and satisfaction is not linear but interactive (Tseng et al., 2023). While perceived value forms the foundation of expectations, it also influences the depth of satisfaction. When customers believe they have received exceptional value, their satisfaction is likely to be higher, even if their initial expectations were moderate. Conversely, when perceived value is low, satisfaction may be challenging to achieve, even if expectations are low as well (Adyatrin, 2023).

Hypothesis for Gloria Jeans Coffee Shop in Kyrenia:

In the context of coffee shops in Kyrenia, it is reasonable to hypothesize that product quality, particularly the quality of the coffee and related offerings, significantly influences customer satisfaction. The coffee, being the core product, is the centerpiece of the customer experience (Wantara & Tambrin, 2019). Its taste, freshness, and presentation are pivotal in shaping customer perceptions. In addition, the auxiliary goods, such as pastries and other consumables, add to the whole assessment of the product's quality. Coffee businesses that are great at producing high-quality goods—from delicious pastries to well-prepared coffee have a clear edge when it comes to attracting and maintaining repeat business (Adyatrin, 2023).

Cognizant of this, one can predict with ambiguity that placing a focus on product quality would lead to greater consumer satisfaction in the distinctive atmosphere of Kyrenia's Gloria Jeans coffee shop.

Coffee businesses that regularly supply high-quality items are likely to provide a memorable and enjoyable experience for their customers (Suchánek et al., 2014).

In summary, there is a historical as well as an empirical support for the link existing in between product quality and customer satisfaction (Ishtiaq Ishaq et al., 2014). The relationship is clearly visible in the context of Kyrenia's Gloria Jeans coffee shop, where the core product's quality (coffee as well as other offerings) play the key role on the determination of a customer's level of satisfaction.

H1: Product quality will positively and significantly influence Customer satisfaction.

Relating price to satisfaction

One dynamic and complex issue that has a big impact on consumer satisfaction is the cost of goods and services. Price has a complicated effect on customer satisfaction because of the complex interactions between many components.

Direct and Indirect Effects of Price:

The seminal work of (Geissmar et al., 2023) underscores that the performance expectation of a product is predominantly influenced by its price. In a nutshell, pricing is frequently a major factor in determining what customers anticipate. The perception of a product deemed costly relative to these expectations may have a direct or indirect impact on consumer satisfaction (Chou et al., 2020). Pricing and pleasure thus have a relationship that goes beyond simple direct correlations and takes into account the indirect effects of pricing when seen through the prism of performance expectations (Businge et al., 2023).

Pricing and Customer Experience:

Xu et al., (2022) succinctly encapsulates the importance of pricing in customer satisfaction, noting that pricing can either enhance or undermine the overall customer experience. The price customers pay for a product or service significantly influences their perceptions of its value (Gaberamos & Pasaribu, 2022). When pricing aligns with the perceived value, it can elevate satisfaction. However, when pricing

creates a sense of sacrifice or seems incongruent with the expected value, it may negatively impact satisfaction (Efendi et al., 2023).

Demand-Focused Pricing:

Organizations that implement demand-focused pricing strategies, as explained by (Thesis, 2023) are attuned to the dynamic nature of pricing in the market. They recognize that the demand and prices for services can vary from low to high. Customers are more likely to believe that a company's pricing is reasonable and accurately represents the value they receive when it successfully adjusts its prices in response to market demand. Customers may become dissatisfied, though, if prices stay fixed and do not change in response to changes in demand, especially if they believe they are paying too much (Dian & Prajanti, 2019).

Mixed Findings in the Literature:

The relationship between price and satisfaction is not uniformly straightforward. (Karki & Panthi, 2018) acknowledge that the connection between price and satisfaction is nuanced. They contend that when price reflects product quality, it positively impacts customer satisfaction. Customers are prepared to pay more for greater quality in some situations (Xu et al., 2022). However if they deem the reverse to be true in this case, this will negatively affect satisfaction as they will turn to be reluctant about the purchase

Evidence of Positive Impact:

Karki & Panthi, (2018) provide further contemporary evidence supporting the positive impact of price on customer satisfaction were found to positively correlate in their study conducted in Nepalese eateries in Finland. This implies that even in situations when prices are quite high, buyers may find satisfaction in the idea of fair pricing.

Expected Impact in the Present Research:

Given the intricate and context-dependent nature of the relationship between price and satisfaction as indicated in the research presently under publication (Mainardes & Freitas, 2023, Han & Ryu, 2009, Gaberamos & Pasaribu, 2022) it is reasonable to predict that the pricing strategy employed by coffee shops in Kyrenia will have a significant influence on customer satisfaction. If customers feel that the prices are fair for the caliber and worth of the products and services provided, their level of satisfaction is probably going to increase (Efendi et al., 2023). However, if pricing is viewed as unfair or excessive given the perceived value, it might negatively impact satisfaction. Depending on variables including client expectations, the competitive environment, and the overall quality of the provided goods and services, the impact's intensity may change (Huang et al., 2014). There are many facets and contextual differences in the dynamic that exists between pricing and consumer pleasure. It is impacted by things like perceived value, consumer expectations, and price tactics used by companies (Dian & Prajanti, 2019). With the ability to either improve or worsen the total customer experience, pricing strategy is anticipated to play a significant role in determining consumer happiness in the context of Kyrenia's coffee shops.

H2: Price will positively influence Customer satisfaction

Relating service quality to satisfaction
Service quality measurement reexamination as recommended by the SERVQUAL, indicates that while some researchers put forward that high rates of perceived service quality leads to increases in the customer satisfaction others argue that service quality originates from customers satisfaction due to deficiencies in the accurate memorability of service quality (Gupta et al., 2022) Nevertheless, Gopi & Samat, (2020) stated that these two variables are core factors of the service- profit chain since high rates of perceived service quality leads to increases in the customer satisfaction Karki & Panthi, (2018) also concluded that customer satisfaction increased with service quality. Evident from the discussed literature, the following hypothesis is advanced for the research understudy:

H3: Service quality will positively influence Customer satisfaction.

Relating physical environment to satisfaction

The significance of the physical environment in influencing customer satisfaction has been underscored by various scholars. Ryu & Han, (2011) introduced the concept that the physical environment can be strategically leveraged to enhance satisfaction with services. According to their seminal work, the tangible aspects of a commercial setting, including its aesthetics, layout, and ambiance, contribute significantly to the overall customer experience (Iyendo et al., 2016).

further emphasize the interplay between the physical environment and customer satisfaction, highlighting its impact on how customers perceive pricing (Wibisono et al., 2022). The components of the physical environment, as identified by these researchers, have a direct influence on how customers evaluate the value they receive. An aesthetically pleasing and well-designed environment can positively shape perceptions of the service's worth, thereby contributing to higher levels of customer satisfaction (Çetinsöz, 2019).

H4: The physical environment will positively influence Customer satisfaction

Methodology

Research design

Research designs, in the words of John W. Creswell, are forms of inquiry that fall under the qualitative, quantitative, and mixed methodologies categories and offer precise guidance for study processes (Aalberg et al., 2012). Others contend that it relates to the approach we use to logically and cogently combine the many study components, guaranteeing that the research topic will be successfully addressed (Arezina, 2018). This survey used a descriptive and causal research approach to accurately reflect the contemporary setting in which the study was conducted. According to Rahi, (2017) and Miller & Salkind, (2012) descriptive research offers an accurate depiction of people, events, or situations. It is a process for acquiring information in order to produce anticipated outcomes on the subject at hand (Hakim, n.d. 2000)

Population, Sample and Sampling Technique

Population

The population is the entire collection of cases from which researchers choose their sample (Hameed: Taherdoost, 2016). The target audience, according to (Wright & Pandey, 2010), is a set of individuals or things that the study will be generalized to. The population of interest for this study comprises all customers of Gloria Jeans who are GAU students. That is to say all GAU students who have once visited Gloria jeans and have an experience will be the target population of the study. The population of students who have once visited Gloria jeans is estimated to be about 448 from which we can draw a sample. The inclusion criteria were: (1) adults over the age of 18, (2) fluent in English and (3) residents of the local community.

Sampling size

Sampling is the process of selecting a portion of individuals or elements from a larger population in order to derive information or generalize about that group. Because it is not always feasible or practical to study a community as a whole, researchers use samples to draw conclusions about the wider population. Understanding the features of the entire population from which the sample was drawn is the primary goal of sample selection for study, rather than analyzing the sample's characteristics in isolation. (MULİSA, 2022). To derive an inference from the complete population, 230 students will be sampled from the target population of 448 GAU students, which constitutes the population of this study. A sample calculator available online was used to do this.

Sampling technique

Convenience sampling will be used in the study to collect the required data. According to Hameed: Taherdoost, (2016), this sampling technique chooses participants based on their availability and desire to take part in the research. Convenience sampling is very useful when it's easy to reach the target group and fits in with the practical requirements of the research process (Aalberg et al., 2012). This strategy will improve the data collection process's practicality by incorporating easily available persons. Convenience sampling has several advantages, including efficiency in terms of time and money. As such, it is a good option for research with tight deadlines and little funding (Etikan, 2016).

Instrument of Data Collection and Source

Standardized questionnaires were utilized to gather primary data from research participants. In the survey, participants were asked to choose from a list of pre-selected response options the option that best reflected their responses to the questions. Most survey responses are easy to tabulate or score, and it is usually easy to evaluate the resulting data. This is especially true if the vast majority of the questions on the questionnaire are selectable alternatives (Patten, 2020). Pattern pointed out that questionnaires are inexpensive, useful for obtaining information on sensitive topics, and rapid and uncomplicated. Survey respondents may take their time and thoroughly examine their answers, which is an additional benefit of using questionnaires.

This item will be accompanied with an excerpt from the survey. The questionnaire was kept basic by using 5-point Likert scales for all of its questions and only having closed-ended options. It was divided into five primary subsections: customer satisfaction, the dependent variable, and the following four categories: product quality, pricing, service quality, and physical environment (where these four were capturing the independent variable, customer perceived value).

Secondary data was acquired to help the inquiry once initial data was utilized as the basis to accomplish the study's objectives. This information was gathered from reliable secondary sources that were crucial to accomplishing the study's objective, such as books, journals, websites, and earlier research.

Variables on which Data is Collected and their Measurement

According to this study, which is titled "The Impact of Customer Perceived Value on Customer Satisfaction," consumers' perceived values affect their level of contentment. Accordingly, the independent variable is consumer perceived value, and the dependent variable is customer satisfaction. The subsequent captures the independent variables: Product quality, Price of the product, Service quality and Physical environment.

To evaluate attitudes, actions, and views, a Likert scale is employed. Likert scales are helpful for more precisely recording respondents' opinions or level of agreement with a particular topic since they provide a range of possible replies. Students at GAU were asked to rate their degree of agreement using

a five-point Likert scale. Pre-testing a research tool is essential to find any issues, constraints, and shortcomings with the survey and enables adjustments before data is gathered. Pre-testing was done to gauge participants' understanding of the questions and to avoid assessment and language errors. In order to do this, a small sample of students who filled out the questionnaires was requested to confirm the survey, creating a trustworthy foundation for assessing the survey tool.

Validation and Reliability of Instruments (Face, Content, Construct Validity etc.)

Wanjala et al., (2017) state that a tool's validity may be evaluated by how effectively it predicts and collects the data required to meet the study's objectives. According to Messick, (1994), competent design is crucial. The inquiries and suggestions from the supervisor inspectors improved the quality (validity) of the questionnaire. Prior to the actual data collection, ten students were utilized as pre-testers for the study's instruments. O'Leary et al., (2016) asserts that validity boosts a tool's reliability. Nevertheless, having a strong tool is vital. The capacity of an instrument to collect data consistently and reliably with similar participants and under similar settings is known as reliability. When someone completes the same assessment more than once and has a comparable result, the measurement is considered reliable. The investigator employed Cronbach's alpha values, an inner uniformity indication that assesses the range of testing questions, to examine a single underlying problem. A threshold assessment reliability value of 0.7 was assigned to the study process parameters. The score, which goes from zero to one, is regarded as good at 0.7. According to Hadi Bouzidi & Jaillet, (2009) a test's validity is deemed acceptable if it only includes items that allow for the evaluation of competencies related to training objectives, an indication in the range of 0.7 to 0.8 is deemed satisfactory. An alpha score of more than 0.7 is required for a research to be deemed confirming (particularly in the case of a previously validated grading system).

The extent to which a tool assesses precisely what it is intended to assess is known as its validity. A measuring tool is deemed reliable if it consistently produces the same results with the same group of subjects under the same circumstances. In its most basic form, reliability is the capacity to produce consistent or predictable outcomes. Truth evaluation includes reliability as a component (Sullivan,

2011). How effectively a survey responds to its research topic, or how dependable its findings are, is referred to as validity in research. Validity is the degree to which an evaluation exceeds the accuracy of outcome assessments, like exams or polls. In this case, the assessment tool's validity pertains to the degree to which it accurately assesses the primary result of interest.

Validity is a feature of how the tool is used with a particular group of students in a certain environment, not a feature of the instrument for every student (Sullivan, 2011). For research findings to be regarded seriously, measurement tools must be precise and dependable. As a result, each evaluation technique utilized to evaluate study findings has to have its validity and reliability checked, discussed, or supported by references. For example, teacher and school evaluations include these assessments. Using a tool with high reliability is crucial to proving the validity of the study.

Data analysis

In order to bring significance and originality to the issue being studied, every research endeavor has to properly evaluate and articulate the meaning derived from field data. The Statistical Package for Social Sciences (SPSS) was the primary data analysis tool used for this study, which made it simpler to assess the collected field data. To illustrate the accuracy of the data, percentage tables, pie charts, and bar charts were also included in the descriptive analysis. Concerning the independent and dependent variables, a Cronbach coefficient (Cronbach alpha coefficient) analysis was conducted. Multiple correlation analysis (MCA) was used to build the indexes and regression analysis was used to ascertain the connection between the variables.

Results & Findings

This section comprises data presentation and analysis of the study findings. The data presentation and analysis was done according to research objectives and hypotheses as stated in chapter one. Data was analyzed with the aid of descriptive statistics and presented with the aid of frequency tables, pie charts, and bar charts. A total number of two hundred and thirty (230) questionnaires were administered for

this study, two hundred and eighteen (218) were recovered and eight (8) were discarded leaving a total number of two hundred and ten (210) to be used in this study making a return rate of 92.2%.

Presentation of Findings (Descriptive Statistics)

Two hundred and eighteen (218) were recovered and eight (8) were discarded leaving a total number of two hundred and ten (210) to be used in this study making a return rate of 92.2%.

Reliability Test

The researcher carried out a pilot test to test for the reliability of instruments for both the dependent and independent variable.

A Cronbach alpha coefficient was computed for the explanatory variable or independent "Customer Perceived Value" which was studied through four variables shown in Table 4.1

Table 4.1: Cronbach Alpha Coefficient for the Independent Variables

Dimension	Number of Items	Cronbach Alpha Coefficient	Acceptability
Product Quality	5	0.759	0.759>0.7 Acceptable
Price	5	0.729	0.729>0.7 Acceptable
Service Quality	7	0.813	0.813>0.7 Acceptable
Physical Environment	5	0.748	0.748>0.7 Acceptable

Source: Field survey 2023

The Cronbach Alpha coefficient of Product quality was 0.759, Price had a Cronbach Alpha 0.729, Service Quality has a Cronbach Alpha coefficient of 0.813 and Physical Environment had Cronbach Alpha coefficient of 0.748 and according Cronbach (1951) any Cronbach Alpha coefficient of an

instrument above 0.7 which is the threshold value makes the instruments sufficient and reliable for the research. This means all the instruments used in this study are deemed sufficient and reliable for the study.

A Cronbach Alpha coefficient was also computed for the dependent variable "Customer Satisfaction" as show on table 4.2 below

Table 4.2: Cronbach Alpha Coefficient for the Dependent Variable

Dimension	Number of Items	Cronbach Alpha Coefficient	Acceptability
Customer Satisfaction	5	0.802	0.802>0.7 Acceptable

Source: Field survey 2023

Customer Satisfaction was studied with the aid of 5 items and the Cronbach Alpha coefficient was 0.802 which showed that the items are reliable and sufficient to study Customer satisfaction since the Cronbach Alpha coefficient is greater than the threshold value of 0.7.

Construction of indexes: Results of the Multiple Correspondence Analysis

Table 4.8 shows the summary of the synopsis of the index constructed using Results of the multiple Correspondence Analysis (MCA). Five indexes were constructed in this study.

Table 4.8: Synopsis of the Variable index

Dimension	Principal Inertia	Percent	Cumul Percent
PRODUCT QUALITY index (number of axes=2)			
Dim 1	0.159410	79.9	79.9
Dim 2	0.030111	15.1	95.0

Dim 3	0.010072	5.0	100
Total	**0.199592**	**100**	
PRICE index (number of axes=2)			
Dim 1	0.103205	72.6	72.6
Dim 2	0.033210	23.3	95.9
Dim 3	0.005818	4.1	100
Total	**0.142233**	**100**	
SERVICE QUALITY index (number of axes=2)			
Dim 1	0.183588	69.3	69.3
Dim 2	0.079849	30.2	99.5
Dim 3	0.001343	0.5	100
Total	**0.264780**	**100**	
PHYSICAL ENVIRONMENT (number of axes=2)			
Dim 1	0.224780	58.8	58.8
Dim 2	0.133403	34.9	93.7
Dim 3	0.023898	6.3	100
Total	**0.382080**	**100**	
CUSTOMER SATISFACTION (number of axes=2)			
Dim 1	0.142992	67.4	67.4
Dim 2	0.066164	31.2	98.6
Dim 3	0.002971	1.4	100
Total	**0.212127**	**100**	

Source: Field survey 2023

Results from multiple Correspondence Analyses showed that all five indexes were constructed on two axes.

Product Quality was constructed using three dimensions with a total principal inertia of 0.19959, the first dimension contributed 79.9% to product quality with a principal inertia of 0.159410, the second dimension contributed 15.1% to product quality with a principal inertia of 0.030111 and the third dimension contributed 5.0% to product quality with a principal inertia of 0.010072.

Secondly, the first dimension contributed 72.6% to product quality with a principal inertia of 0.103205, the second dimension contributed 23.3% to product quality with a principal inertia of 0.033210and the third dimension contributed 4.1% to product quality with a principal inertia of 0.005818.

Also service quality was constructed using three dimensions the first dimension contributed 69.3% to product quality with a principal inertia of 0.159410, the second dimension contributed 30.2% to product quality with a principal inertia of 0.079849 and the third dimension contributed 0.5% to product quality with a principal inertia of 0.00134

Physical Environment and Customer satisfaction were also constructed using three dimensions, physical environment had a total principal inertia of 0.382080 and Customer satisfaction had a total principal inertia 0.212127.

The Summary of Descriptive Statistics of the variables is presented in Table 4.9 below.

Variables	N	Minimum	Maximum	Mean	Std deviation
Product quality	210	-1.23900	1.64900	1.61429	0.95285
Price	210	-1.45332	2.43300	1.47368	1.50051
Service quality	210	1.43554	1.08473	3.44976	1.15966
Physical environment	210	1.33219	2.01394	3.42105	1.14972
Customer satisfaction	210	1.36533	2.10492	3.56731	1.07465

Source: Field survey 2023

From table 4.9 showed that Product Quality had a mean of 1.61429 and a standard deviation of 0.95285, which showed that there is variability in Product Quality index, with a minimum value of -1.23900 and a maximum value of 1.64900.

Price evolved between -1.45332 and 2.43300 with a mean of 1.47368 and standard deviation of 1.50051. Service Quality values evolve within the range of 1.43554 and 1.08473. Physical Environment had a mean value of 3.42105 and a standard deviation of 1.14972 and finally Customer Satisfaction had mean of 3.56731 and standard deviation 1.07465.

A Pearson correlation matrix was used to determine if there is a strong correlation between the independent variables to see if there is any sign of multicollinearity in the model. Table 4.10 shows the Pairwise correlation matrix of the variables.

Table 4.10: Pairwise correlation matrix of the Independent variables

	Product quality	**Price**	**Service quality**	**Physical environment**	**Customer satisfaction**
Product quality	1.000				
Price	0.834	1.000			
Service quality	0.749	0.795	1.000		
Physical environment	0.708	0.864	0.841	1.000	

Source: Field survey 2023

Table 4.10 showed that there is a strong correlation between the independent variables (Product Quality, Price Product, Service Quality, and Physical Environment) since all the person coefficient values exceed 0.6 which is the threshold value. Meaning there is no sign of multi- colinearity.

The OLS estimation is shown below in Table 4.11, Table 4.12 and Table 4.13 on the effect of Customer Perceived Value on Customer Satisfaction

Table 4.11 Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.806[a]	.708	.694	.071
a. Predictors: (Constant), Price, Service Quality, Physical Environment , Product Quality				

Source: Field survey 2023

The model showed that the value of R is 806, R Square had a value of 0.708 and Adjusted R square had a value of 0.694 which denotes that 69.4% variation in customer satisfaction index can be jointly explain by the four independent variables Price, Service Quality, Physical Environment, and Product Quality. The remaining 30.6% is explained by other variables that were not stated in the model.

4.12: Analysis of Variance(ANOVA[a])						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	67.270	4	16.818	22.177	.000[b]
	Residual	150.906	206	.758		
	Total	218.176	210			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), Price, Service Quality, Physical Environment , Product Quality						

Source: Field survey 2023

Analysis of ANOVA table above shows a positive value of 22.177 with a p-value of 0.000 which is less than 0.05 means that joint significance test of all the variables in the model. It implies that the variables correctly predict the model.

Table 4.13 Coefficients[a]		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.299	.264		4.914	.000
	Price	.148	.070	.152	2.124	.035
	Service Quality	.184	.065	.213	2.831	.005
	Physical Environment	.289	.063	.323	4.608	.000
	Product Quality	.139	.074	.186	2.201	.0231
a. Dependent Variable: Customer Satisfaction						

Source: Field survey 2023

The coefficient of Price is positive 0.152 which implies there is a positive effect of price on Customer Satisfaction. Also the P value for price is 0.035 which shows that there is a significant effect of price on Customer Satisfaction at a 1% significant level, therefore an increase in Price by one unit will lead to an automatic increase in Customer Satisfaction by 0.152 if everything else is left constant.

Also the coefficient of Service Quality is positive 0.213which implies there is a positive effect of price on Customer Satisfaction. Also the P value for price is 0.005which shows that there is a significant effect of Service Quality on Customer Satisfaction at a 1% significant level, therefore an increase in Service Quality by one unit will lead to an automatic increase in Customer Satisfaction by 0.213 if everything else is left constant.

Further the coefficient of Physical Environment is positive 0.323 which implies there is a positive effect of Physical Environment on Customer Satisfaction. Also the P value for price is 0.000 which shows that there is a significant effect of Physical Environment on Customer Satisfaction at a 1% significant

level, therefore an increase in Physical Environment by one unit will lead to an automatic increase in Customer Satisfaction by 0.323 if everything else is left constant.

Furthermore the coefficient of Product Quality is positive 0.186 which implies there is a positive effect of Product Quality on Customer Satisfaction. Also the P value for price is 0.0231which shows that there is significant effect of Product Quality on Customer Satisfaction at a 1% significant level, therefore an increase in Product Quality by one unit will lead to an automatic increase in Customer Satisfaction by 0.186 if everything else is left constant.

Discussions

H1: Price has a significant effect on customer satisfaction at Gloria Jean's coffee shop

Based on the OLS estimation done above it indicates that Price has a positive and significant effect on customer satisfaction. This finding agrees with the first hypothesis which states that Price has a significant effect on customer satisfaction at Gloria Jean's coffee shop, this finding goes a long way to agree with the findings of (Jiang, 2004), HaN,2009), (Beneke & Zimmerman, 2014). Whose findings showed that price is an important variable that affects customer purchasing preference and their satisfaction, that customer's behavior is shaped by the perceived price.

H2: Product Quality has a significant effect on customer satisfaction at Gloria Jean's coffee shop

Also the regression analysis done above it indicates that Product Quality has a positive and significant effect on customer satisfaction. This findings agrees with the second hypothesis which states that Product Quality has a significant effect on customer satisfaction at Gloria Jean's coffee shop, this findings goes a long way to agree with the findings of (Ernest Grace et la., 2021) whose findings indicated that the quality of a product provides consumers with confidence because consumers are looking for products with good quality, so if customers are satisfied they will continue to buy more products.

H3: Service Quality has a significant effect on customer satisfaction at Gloria Jean's coffee shop

In addition based on the OLS estimation done above it indicates that Service Quality has a positive and significant effect on customer satisfaction. This findings agrees with the first hypothesis which states that Service Quality has a significant effect on customer satisfaction at Gloria Jean's coffee shop, this findings goes a long way to agree with the findings of (Fonseca & Brito, 2010) and Anggraeni et la., (2016) whose findings showed that service quality has a positive and significant effect on customer satisfaction, the greater the service the more the satisfaction of customers.

H4: Physical Environment has a significant effect on customer satisfaction at Gloria Jean's coffee shop

Finally based on the OLS estimation done above it indicates that **Physical Environment** has a positive and significant effect on customer satisfaction. This findings agrees with the fourth hypothesis which states that **Physical Environment** has a significant effect on customer satisfaction at Gloria Jean's coffee shop, this findings goes a long way to agree with the findings of (Mitali Singh, 2021) whose findings showed that while product and service must be of acceptable quality, it is also important that the physical environment should also be pleasing like decor, layout, and even the music should be well done because it also contribute greatly to customer satisfaction. This is because the customer also evaluates the physical surroundings when evaluating their experience. Also Kotler (1973) stated in his findings that in some situations the customers evaluate the atmosphere, the same way to evaluate the food and services.

Summary of Findings

The main objective of the study is to determine the effect of Customer Perceived Value on Customer Satisfaction at Gloria Jean's coffee shop. The study was guided by four specific objectives which were to determine the impact of price on Customer Satisfaction at Gloria Jean's coffee shop, to evaluate the effect of product quality on Customer Satisfaction at Gloria Jean's coffee shop, to examine the effect of

service quality on Customer Satisfaction at Gloria Jean's coffee shop and finally to determine the impact of the physical environment on Customer Satisfaction at Gloria Jean's coffee shop.

Descriptive research used in this research design in this study because it was found to be appropriate for the research. The population of interest for this study comprises all customers of Gloria Jeans who are GAU students. That is to say all GAU students who have visited Gloria jeans and have an experience will be the target population of the study. Data was collected with the aid of questionnaire from a sample size of 230 students who have been to Gloria Jean's coffee shop and analyzed using SPSS version 21, descriptive statistics and inferential statistics were carried out on the study. MCA was done as well as regression and analysis. The following results were recorded.

The study established that product quality and customer satisfaction have a positive relationship as well as significant influence on consumer loyalty at Gloria Jean's coffee shop. This means that the quality of a product is able to provide confidence because customers are looking for products that are of good quality and this will lead to an increase in customer satisfaction.

Similarly, the study established that the price of a product has a positive and a significant effect on customer satisfaction at Gloria Jean's coffee shop. This means the products with prices are hardly consumed by the targeted population of the study who are students and they feel that for them to be satisfied. This means affordable prices will lead to an increase in customer satisfaction.

Moreover, it was noticed from the study that service quality has a positive and a significant effect on customer satisfaction, this means an increase in the ability of Gloria Jean's coffee shop staff to be available and keen to fully attend to their customers will lead to customer satisfaction.

Finally the study revealed that customer satisfaction is also influenced by the physical environment. This means the nicer the environment (décor, type of music played) the more the customer satisfaction at Gloria Jean's coffee shop. This means a more appealing physical environment will lead to customer satisfaction.

Conclusions

The main objective of the study is to determine the effect of Customer Perceived Value on Customer Satisfaction at Gloria Jean's coffee shop. The study therefore concludes that Price, product quality, service quality, and physical environment all have a positive and significant effect on customer satisfaction, signifying that the model used in chapter three is best for this study. It is therefore crucial to prioritize these elements in order to meet customers' expectations hence satisfying their needs.

To managers;

Customer satisfaction is a very determinant competitive tool for most firms including those of the Food and Brewery industry as discussed above. All business entities be it small or large size are out with the main goal of cost minimization and profit maximization. To achieve this objective, therefore implies that managers are therefore mounted with the responsibility of making sure every task in the business is done effectively and efficiently in view of providing just the best for the customers. Only a satisfied client will come back to buy more of a product he or she has consumed before which will ease the objective of cost minimization and profit maximization. Therefore I encourage owners and managers of coffee shops in Kyrenia, North Cyprus to become more aware of the importance of customer satisfaction and to implicate themselves actively in enhancing product quality, service quality, the physical environment and reasonable prices in order to favorably affect it.

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The Role of Information Technology in Building Customer Trust on E-Commerce Websites: The Case of *Alibaba.com.*

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Abstract

This study conducts a data analysis of the relationship between e-commerce and customer satisfaction in the context of AliExpress. In this research study, we analyze the design features of an e-commerce website to identify those that contribute to bolstering customer trust. This study analyzes the variables that impact trust in online transactions, with a specific emphasis on the e-commerce platform Alibaba. It involves identifying the specific research procedures to gather data about abstract theoretical concepts; it has two steps (1) the Identification of specific indicators that will be taken to represent the ideas we are interested in studying and (2) the exploration of published literature in the area of investigation to see if there are present approved measures similar to the researcher's operational definitions that can be utilized directly or modified to measure the researcher's theoretical concepts. Participants will be recruited for the study using a variety of social media channels, and the full study will take place online. (Facebook, Instagram and Telegram). The findings of the study offer support for the influence of personality traits such as emotional instability, stress management, nervousness, depression, and excessive worrying, as well as their associated factors. This suggests that emotional stability has a negligible or non-existent effect on customers' level of trust, depression does not supersede customer trust, and worry does not affect customer trust. The fear of customers regarding credit card payment is the sole noteworthy personality trait among the factors, as it may lead to the e-retailer (Alibaba.com) rejecting the payment and not delivering the requested product or service.

Keywords: Information technology, Customer trust, Satisfaction, Trait Personality and Website

Introduction

Throughout history, humans have encountered numerous obstacles in their efforts to fulfill their basic needs. The requirements of human beings are diverse and encompass a range of domains, such as physiological, safety, social, esteem, and self-actualization needs. (McFarland, 1973) Human needs are

considered inevitable, and as a result, individuals strive to ensure that they are fulfilled. However, it is important to note that due to unforeseen contingencies in the environment and society, human needs are insatiable. Human beings are inherently subject to various constraints when attempting to fulfill their needs on an individual basis. As a result of these limitations, individuals are faced with the choice of establishing a network of connections with other individuals who possess or have access to the necessary resources, whether directly or indirectly. Throughout history, humans have developed various cognitive approaches and means to meet their ever-increasing needs such as barter trade

The barter system; it is a method of exchanging goods and services without the use of money, was prevalent for centuries prior to the invention of currency Davies (2010). This system was utilized during the early stages of civilization, when human needs were basic and uncomplicated. For instance, a farmer could exchange wheat for cloth with a weaver. However, the barter system had significant limitations. One such limitation was the lack of a common measure or unit of value for goods and services, making it difficult to express exchange ratios due to the unequal value of commodities. When a common measure is absent, the exchange ratio is arbitrarily established, often resulting in one of the parties experiencing a disadvantageous outcome. This system was effective in managing a limited number of commodities within early societies. Nonetheless, in the contemporary economy, the requirement for millions of exchange ratios to facilitate a vast array of goods and services poses a significant challenge. (Sachs et al., 2022)

Due to the aforementioned reasons, in addition to numerous other limiting factors, the barter system was unsustainable over an extended period of time. Consequently, it was substituted by monetary exchange, which entails the exchange of commodities facilitated by the use of currency (Sachs et al., 2022).

The contemporary online consumer anticipates that online merchants will display a readiness and aptitude to prioritize the welfare of the consumer, uphold transactional integrity by abstaining from divulging personal data to external vendors, and showcase proficiency in delivering the procured

merchandise in accordance with the mutually agreed-upon conditions. Jiang et al., (2008) argue that the attainment of prosperous online retailing hinges on the establishment of consumer trust.

The significance of customer satisfaction with the products and services provided by an e-commerce enterprise cannot be overstated, as it has the potential to foster customer loyalty and recurrent purchases, thereby generating higher profitability for the company. The objective of this study is to evaluate the level 0f customer satisfaction through an analysis of the influence 0f website design characteristics on perceived performance and pre-existing expectations, thereby promoting customer confidence in e-commerce platforms. The present research endeavors to perform a comprehensive data analysis of the correlation between electronic commerce and customer contentment within the framework of AliExpress

Statement of the problem

Undoubtedly, there has been a significant increase in the number of internet users worldwide in recent years. As a result, there has been a corresponding increase in the number of e-commerce websites. Certain websites offer a streamlined and expedient transactional process, thereby rendering the traditional open market dispensable for prospective buyers. Given this premise, it is anticipated that there will be a rise in the populace participating in e-commerce transactions (Eastin, 2002). The potential of e-commerce remains largely untapped. There remains a significant level of skepticism among individuals regarding the advantages of it. The lack of trust among customers towards the delivery system, payment methods, and anonymity associated with e-commerce operations is a prevalent issue (Jiang et al., 2008). Hence, it is imperative for online marketing firms worldwide to comprehend the factors that gratify both individual and organizational clients. The present study constitutes a comprehensive examination of customer satisfaction and e-commerce website performance, utilizing Alibaba.com as a prominent global online marketplace. The potential contribution of the present study to the Technology Acceptance Model (TAM) is acknowledged. This research study aims to investigate the design features of an e-commerce website in order to determine their potential to augment customer trust.

Research questions

General research questions

What is the impact of information technology on customer satisfaction on e-commerce websites?

Specific Research Questions

What is the effect of trust on the customer satisfaction on e-commerce websites?

What is the impact of Trait Personality on e-commerce websites?

What is the effect of Website Design Features on e-commerce websites?

Research objectives

General research objectives

To examine impact of information technology on customer satisfaction on e-commerce website

Specific Research Questions

To examine the effect of trust on the customer satisfaction on e-commerce website

To determine the impact of Trait Personality on e-commerce website

To evaluate the effect of Website Design Features on e-commerce website

Significance of the study

The results of this investigation will be of significant assistance due to the identified knowledge deficit regarding the influence of e-commerce on customer satisfaction. Consequently, this investigation holds importance for the subsequent categories of users:

The study would provide valuable data for strategic decision making by managers of commercial organizations worldwide.

The insights derived from this study are expected to benefit consumers, as the recommendations provided can serve as a valuable source of information for making informed purchase decisions.

This study has the potential to benefit online shops worldwide by providing valuable insights that can aid in the development of features and policies to effectively address competition within the industry. This research would also be advantageous for entrepreneurs who aspire to enter the realm of digital marketing.

The research outcomes of this study would hold significance for scholars engaged in knowledge transfer, as they would serve as empirical evidence.

Literature Review & Hypothesis Development

Information technology

According to the claims posited by Haag and Keen, the field of information technology encompasses a set of tools that can aid in the management of data and the performance of tasks related to information processing. The incorporation of information and communication technology (ICT) in business and managerial communication has resulted in noteworthy and unparalleled changes in the domain of global business information exchange. The incorporation of information technology (IT) facilitates the entry of a variety of companies into new markets by fostering innovation and the creation of new products and services, ultimately leading to the advancement of the enterprise and organization. The incorporation of information technology and the internet has brought about a significant transformation in the business domain, facilitating the transmission of data via electronic gadgets and the World Wide Web. The increased ease of conducting business between companies on a global level has been noted to have contributed significantly to the impressive performance of the economy (Mgunda, 2019).

Currently, a significant proportion of individuals integrate technology into their daily activities, including both basic and advanced applications according to Bessen, (2016).

The field of information technology (IT) plays a crucial role in enabling online business transactions by providing media platforms such as the internet. Websites and applications serve as platforms for consumers to make selections of desired items. In addition to online transactions, auxiliary technologies are required to facilitate e-commerce, including telecommunication systems, financial institutions for consumer payments, and media platforms for producers, and shipping agencies such as postal services. These technologies have had a notable impact on the growth and progression of e-commerce enterprises. The utilization of IT has significantly contributed to the provision of efficient, cost-effective, and expeditious online business services for both manufacturers as well as clients (Steenhuis & DeBruijn, 2012)

The proliferation and affordability of internet connectivity in certain nations have a significant impact on the advancement of digital enterprises. This presents a comparative advantage for the progression of e-commerce in contrast to traditional brick-and-mortar commerce. Information technology refers to any technological system that facilitates the creation, modification, storage, transmission, and dissemination of information by human beings. Information technology (IT) integrates fast computing and communication technologies to facilitate the transmission of data, voice, and video. IT encompasses a wide range of electronic devices, including but not limited to personal computers, telephones including household appliances as well as telephones is a crucial factor in facilitating and enhancing business operations. However, it necessitates a substantial financial investment (Rajaraman, 2018).

Global impact of information technology

The advancement of information technology has had a noteworthy influence on various facets of existence, particularly within the realm of commerce. Presently, the emerging paradigms are e-business (also known as e-trade). Its Contemporary manifestation has presented novel opportunities and obstacles for business practitioners and entities. There is a current global trend towards changes in business practices, particularly in the areas of information management and network systems. These changes aim to facilitate faster and more flexible access to services.

Numerous scholars assert that the primary feature of contemporary global commerce is electronic business (e-business). The operational framework enables the transfer of data and commercial dealings that are devoid of physical documentation, through Electronic Data Interchange (EDI), electronic mail, electronic bulletin boards, electronic fund transfers, and other network-oriented technologies.

Impact of information technology on entrepreneur

Different research works have shown that the rapid and diverse advancement of technology has resulted in the integration of information technology into various facets of daily life. The utilization of technology facilitates a streamlined, optimized, and enhanced approach to addressing challenges. The perpetuation of a nation's economic sustainability necessitates the presence of entrepreneurial endeavors. In the contemporary context, it is imperative for society to prioritize the cultivation of individuals who are capable of generating employment opportunities as opposed to those who solely seek employment. The presence of obsolete policies within governmental institutions can have a significant impact on the entrepreneurial landscape within their respective jurisdictions Baumol (2004). Consequently, it is not unexpected that scholars have advocated for more comprehensive examinations of entrepreneurial pursuits within a nation, designating them as a sparsely explored domain of inquiry (Busenitz et al., 2000). In the writings of Karlsson and Acs (2002), variations in institutional environments across nations have a significant impact on the rate of new business establishments. In corroboration, Almeida and Zouain (2016) provided evidence that suggests a favorable correlation between entrepreneurship and the adoption of information and communication technology (ICT), particularly in developing nations that possess superior e-government resources.

E-commerce

E-commerce, commonly known as electronic commerce, internet commerce, or online commerce, encompasses all commercial transactions that involve the exchange of goods and services through digital channels. The e-commerce model functions on a comparable basis to that of conventional physical stores, except that all exchanges and engagements are conducted through the internet.

E-commerce refers to the execution of business transactions through electronic channels. Turban et al. presented a comprehensive definition of the term e-commerce in their widely acknowledged publication. According to the authors, e-commerce is a computer-mediated activity that encompasses the exchange, transfer, purchase, or sale of goods, services, and/or information, and is facilitated through the use of computer networks, including the Internet. The conventional association of e-commerce is with online communities. As per Darwis' (2013) assertion, e-commerce pertains to the transactional process of purchasing and vending commodities or amenities by means of the utilization of the World Wide Web. The process entails the transfer of commodities, data, and amenities through a system of communication, namely the World Wide Web.

E-commerce models

B2C, or business-to-consumer, is widely adopted, wherein companies engage in transactions with individual customers. It is advisable to contemplate the procurement of swimwear from Shein.

B2B (business to business): The B2B (business-to-business) model refers to a business framework in which a company offers goods or services to another company. Cloud Talk's provision of software solutions to other businesses classifies it as a B2B e-commerce model. (Shim et al., 2000)

C2B (consumer to business): The C2B business model involves an individual providing goods or services to an organization in a direct manner. This classification encompasses independent contractors such as writers, photographers, and various other professionals. Another instance is the endorsement of branded products by influencers on their respective platforms.

C2C (consumer to consumer): The C2C model involves the use of the internet by an individual to offer a product or service to another individual. For example, through online platforms such as Etsy or eBay.

Direct to Consumer (D2C): The direct-to-consumer (D2C) e-commerce model is a contemporary approach where a brand engages in selling its products or services directly to the end user, bypassing traditional intermediaries such as distributors, wholesalers, or retailers. A prevalent illustration is the

act of vending products or services on social media stands like Facebook, Instagram, or Pinterest. (Shim et al., 2000)

Trust

Trust, as stated by Lewis and Weigert (1985), is a complex and multifaceted concept. Its significance in interpersonal and business connections has been highlighted by numerous studies conducted in various fields. Social psychology research by Deutsch (1960) including Lindskold (1978), as well as Lewicki & Bunker (1995) counting studies in sociology by Lewis & Weigert (1985), including Strub & Priest (1976), have shed light on the importance of trust. Additionally, economic investigations by Dasgupta (1988) and Williamson (1991), along with marketing studies by Anderson and Weitz (1989), have further emphasized its relevance in different domains. Having a reasonable knowledge of trust becomes more crucial as society grows more contemporary and sophisticated. One of the requirements for a productive job is trust. Generally speaking, it may be described as a technique that would reduce the complexity of behavior in a hazy circumstance. One of the foremost experts on trust ideas, Julian Rotter, attempts to provide an equation for the requirements and expectations of trust to determine the amount of trust between two parties (Nolan, 2006).

Customer's trust

The absence of trust represents a significant impediment to the advancement of e-commerce. In contemporary times, numerous sophisticated technologies are being developed with the aim of mitigating trust-related concerns in electronic commerce, as noted by Miremadi et al. (2013). According to recent statistical data, there has been an increase in the number of consumers who engage in online shopping.

Typically, Riegelsberger et all., (2003) have identified the absence of trust between businesses and consumers as the primary hindrance to the adoption of e-commerce. This study examines the interrelated notions of trust and security in the context of e-commerce websites. Specifically, it explores the extent to which customers are willing to engage in financial transactions with e-commerce websites

without concerns of financial fraud or unauthorized access to personal information. According to Macaulay & Keeling (2007), the establishment of steadfastness regarding clients' trust in e-trade rests on website authenticity. During an e-trade transaction, the transfer of personal information pertaining to the consumer occurs across various websites in order to facilitate the completion of the transaction. This phenomenon can engender a sense of insecurity among consumers with regard to the safety of their personal information while making online purchases. Blanger et al. (2002) have reported that consumers exhibit reluctance to divulge sensitive personal details on e-trade websites including numbers of credit cards when they are apprehensive about the privacy of their data. According to Cheskin Research (1999), ensuring the protection of personal information of consumers is the foremost crucial measure in building their trust.

The development of online trust

Trust can be established through multiple factors, which frequently operate in conjunction with one another. In the realm of electronic commerce, it is logical to amalgamate the notion of diverse foundations or underpinnings of reliance with the outlook of trust as a fluid concept that can be segmented into progressive phases, each possessing distinct attributes. Rousseau and Sitkin et al. (1998) have identified three distinct phases of trust: trust building, trust stabilization, and trust dissolution. The first phase involves the formation of trust, while the second phase pertains to the maintenance of trust that has already been established. The third and final phase is characterized by the decline of trust. The vast array of comparable options available from online merchants often leaves consumers unfamiliar with the primary phase of trust, making the establishment of initial trust a critical factor. According to McKnight and Chervany (2002), the lack of personal interaction with web vendors on the internet renders them faceless. Therefore, the web interface serves as the virtual storefront, which plays a crucial role in shaping the initial perceptions of the customers.

Framework for trust information in e-commerce customer relationship

Our approach is predicated on the idea that establishing client confidence in an e-commerce website takes time and consistent encounters with promises made, maintained, and supported through e-services. A consumer is first persuaded to enter into a business relationship via the services offered based on a favorable predisposition towards the company, which is the outcome of the combination of three constructs: disposition to trust, intuition-based trust, and early trusting beliefs. The customer has a general tendency to trust other People differ in their propensity to trust, which is influenced by their personalities and cultural backgrounds.

Design futures of websites

Xu-Priour, Cliquet, and Palmer (2017) defined website design features as the constituent elements, segments, or data employed in the construction of a website. The constituent components of a website's design are a pivotal subset, as they possess enormous potential in altering clients' viewpoints (Jeon et al., 2017). The initial point of contact between clients and an enterprise is typically through its website. The initial impression of a website significantly influences a consumer's decision to further explore its contents. According to Brutus (2019) preliminary research, there is a possibility that trustworthiness can be enhanced through aid, education, and ease of navigation. The visual attractiveness of an individual's online presence possesses the ability to enhance the user's self-assurance. The design elements of an e-commerce website can be categorized into five principal domains. The aforementioned domains encompass advertising, provision of customer support, navigational ease, and facilitation of the purchasing process. The appropriate utilization of these classifications holds the potential to enhance the significance of dependability.

E-commerce website's trust

The notion of web usability has been extensively defined, deliberated, and scrutinized ever since the emergence of the initial operational website. The concept of website usability pertains to the operational efficiency, efficacy, learnability, and task performance ease of a website. The terminology

has been expanded to encompass the recollection, manifestation, allure, and contentment of consumers subsequent to utilization, as posited by Fadeyev (2009) and Suarez (2016).

Trust is a significant factor that influences a customer's decision-making behavior regarding business dealings void of face to face engagement. The level of reliance in electronic commerce is significantly influenced by the quality of information provided on the websites of the vendors.

The increasing global recognition of e-commerce among both providers and consumers has prompted research and analysis into the development of websites that can effectively engender customer trust and impact their decision-making processes. In 1997, J. Kim conducted a research study pertaining to the development of customer interfaces for online shopping. The researcher discovered that the implementation of four distinct dimensions of customer interface design can effectively enhance the appeal of online shopping for Internet users. The four dimensions encompassing the design of a digital platform include structure design together with navigation design, graphic as well as content design.

Methodology

Research design

A descriptive and correlational research design was employed in this study. Researchers engaged in quantitative research to explicitly articulate the manner in which a particular concept will be gauged. The process entails the identification of particular research methodologies for the collection of data pertaining to intangible theoretical constructs. This process comprises two distinct stages. The two primary steps involved in the study of our desired concepts are: (1) the selection of distinct indicators that will serve as representatives of the concepts under investigation, and (2) the examination of existing literature in the relevant field to determine if there are established measures that align with the researcher's operational definitions and can be employed as-is or adapted to gauge the researcher's theoretical constructs. According to Rawnaq (2023), an operational definition comprises three essential elements: (1) the variable under investigation, (2) the specific measure employed to assess the variable, and (3) the intended interpretation of the measure's outcomes.

Population, sampling technique and procedure

The study will employ the convenience sampling method to recruit participants, which involves collecting data from individuals who are easily accessible and available to participate in the research. The only exclusion criterion is that participants must be 18 years of age or older. The research will be conducted entirely through online means, with recruitment of participants being carried out via social media platforms such as Facebook, Instagram, and Telegram. The research will be promoted on various social media platforms, and individuals within these platforms will be extended a voluntary invitation to participate. Individuals who expressed interest in participating would access the Google form by clicking on the hyperlink provided in the advertisement. The projected duration for each participant to finalize the study is approximately 10 minutes.

Data collection method

The methodology employed in this research will involve the utilization of a questionnaire. The survey instrument is to be partitioned into four distinct sections. In order to complete the process, it is necessary to fill up these specific parts in a sequential manner. The survey comprises four distinct sections, namely: a demographic questionnaire, a test on personality characteristics and another on trust in online shopping, and a website design features questionnaire. The primary objective of the initial section of the questionnaire is to obtain contextual data pertaining to the respondents. This section of the questionnaire comprises three inquiries pertaining to the respondent's gender, highest level of academic qualification as attained plus the age.

The subsequent section of the survey is intended to assess the personality characteristic of the respondents. The individuals involved in the study will receive guidance to evaluate every statement utilizing a Likert scale consisting of five points, where 1 represents "strongly disagree" and 5 represents "strongly agree." A greater numerical value assigned to a rating corresponds to a greater degree of manifestation of a particular personality trait.

The third section of the survey comprises a questionnaire on trust in electronic commerce. The instrument will be utilized to assess the level of trust that participants exhibit towards electronic

commerce. The study's participants will be directed to express their attitudes towards e-commerce through employment of a 5-point Likert scale, where 1 represents "strongly disagree" and 5 represents "strongly agree". A positive correlation exists between the rating assigned by the participant and the level of trust they have towards e-commerce. Specifically, a higher rating indicates a greater degree of trust in the e-commerce platform.

The website design feature questionnaire constitutes the fourth segment of the survey. This section will serve the purpose of comprehending the participants' perspective regarding diverse website design characteristics, with a particular focus on identifying the design elements that foster trust. The inquiries will be grounded on observations derived from the electronic commerce platform Alibaba.com. The inquiries will span various aspects, including but not limited to the visual, content, and social cue design. The objective of this study is to simulate a scenario where individuals are immersed in an e-commerce transaction. The features will be evaluated by the participants using the most utilized scale that is Likert scale constituting 5 points ranging from strong disagreement to strong agreement. A positive correlation exists between the presence of the aforementioned design feature and the probability of making a purchase on a website, as evidenced by a higher rating.

Research instruments

The present study employed a primary analytical approach utilizing quantitative analysis techniques, specifically through the administration of an online survey. An online questionnaire survey was conducted to gather data from users of the Alibaba website. The survey necessitates that participants access an electronic commerce website and subsequently respond to a predetermined series of inquiries. The survey was administered through the online research platform, Google Forms.

The present investigation utilizes a descriptive survey methodology. The scope of this research pertains to the user base of Alibaba as the target population. The researchers utilized a convenience sampling method to gather data from participants accessing the website. Close-ended questions are designed to offer respondents a limited set of answer options to select from. The questionnaire is a preferred

method due to its ability to examine responses and present them in statistical formats such as graphs. Additionally, it allows respondents to answer at their own pace and without any external pressure.

Data analysis

The study will involve collection of both qualitative and quantitative data. Data was analyzed by the use of both descriptive statistics using the statistical packages for social sciences (SPSS) version 22. Simple descriptive statistics and inferential statistics were used in the analysis of data. According to Borg (1996), the commonly used method involves the use of; frequency distribution, percentages, charts and bar charts. The correlational design is a commonly utilized methodology for analyzing data obtained from online platforms. The correlational design is a research methodology utilized to investigate the associations between two or more variables within a single group, which may manifest at various levels. A non-experimental design that investigates the correlation between multiple variables is commonly employed. It is important to bear in mind that the researcher is not assessing the causal relationship, as noted by Wood et al. (2006). The correlational research design is a methodological approach that examines the associations between variables without the researcher exerting any control or manipulation over them. A correlation denotes the magnitude and/or orientation of the association among two or more variables. According to Wood et al. (2006) and Rihoux and Ragin (2009), correlations can exhibit either a positive or negative direction. Correlational research is a non-experimental research approach that utilizes statistical analysis to examine the association between two variables. The correlational research design is limited in its ability to examine the impact of extraneous variables on the variables being investigated. In situations where conducting experimental research would be deemed unethical, correlational research may be employed as a means of establishing the association between two variables. In the context of human research, conducting an experiment may be perceived as hazardous or morally questionable. Therefore, opting for correlational research represents a more viable approach. In a correlational design, researchers investigate the impact of a potential cause that cannot be directly manipulated. Designs are employed to analyze the associations among variables. Several variables that are of significance to nursing researchers are not amenable to

manipulation. The concepts of attitudes, beliefs, and behaviors are frequently considered to be causally linked to health, illness, treatment response, and other outcomes. A correlation refers to the existence of a connection or association between two variables, whereby changes in one variable are observed to correspond with changes in the other variable (e.g., the relationship between an individual's height and weight). Statistical analyses can be employed to detect correlations. According to Rihoux and Ragin (2009), a well-known research principle states that the presence of correlation between two variables does not necessarily imply a causal relationship. The present study utilized correlation analysis techniques to investigate the association between the utilization of technology in electronic commerce and the establishment of customer trust.

The proposed methodology for the study involves utilizing the survey technique through the administration of questionnaires. The survey will be aimed at individuals who have been utilizing Alibaba.com for an extended period of time.

3.6. Model Specification

$Y = \alpha + \beta_1 T + \beta_2 PT + \beta_3 WDF + e$ Where, Y= Customers' Loyalty, α = constant term, T- Trust, PT- Personal Traits, WDF- Website Design Features, B1, β_2, β_3 = Beta coefficients indicating various levels of importance (weight of each factor), e = Error term

Results & Findings

This chapter shows the descriptive analysis using frequency table and inferential analysis using Analysis of Variance (Anova), Regression Analysis and using graphical representation. Out of 166 questionnaires given out 166 were returned, giving a return rate of 100%

**Demographic profile analysis and response rate of respondent**

Table 4. 1: Distribution of respondent by age

Age	17 or younger	18-20	21-29	30-39	40-49	50-59	60	Total
No	0	10	129	21	5	1	0	166
%	0%	6%	77.7%	12.7%	3%	0.6%	0%	100%

Source: Authors' Data 2023

The above table shows the age range of the respondents, 166 information of respondents was collected with 10(6.0%) age between 18-20 years, 129(77.7%) age between 21-29 years, 21(12.7%) age between 30-39 years, 5(3.0%) age between 40-49 years while 1(0.6%) age between 50-59 years.
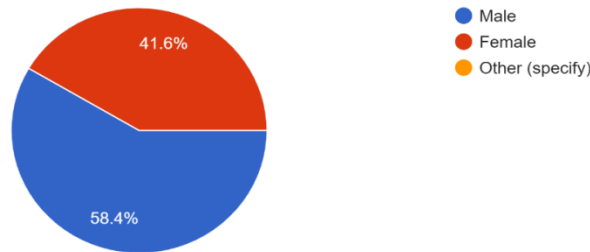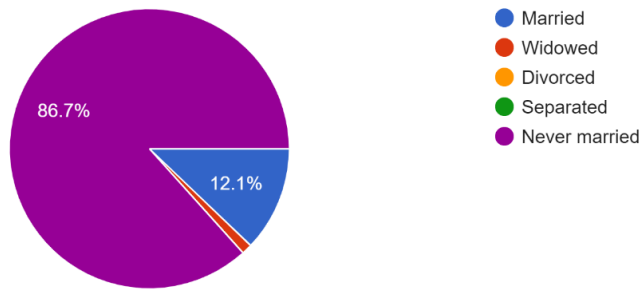

Figure 4. 1: Distribution of respondent by gender
Source: Author 2023

The table shows that out of 166 total respondents, 97(58.4%) are males while 69(41.8%) are females. This shows that there are more male respondents than females.

MARITAL STATUS Are you now married, widowed, divorced, separated, or never married?
165 responses

Figure 4. 2: Distribution base on respondents' marital status

Source: Author 2023

The figure shows the marital status of the respondents, out of 166 respondents (12.1%) are married, (1.2%) are widowed while (86.7%) are never married, that is - single.

EMPLOYMENT What is your current employment status?
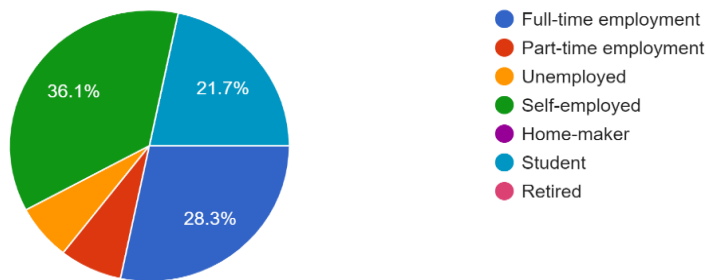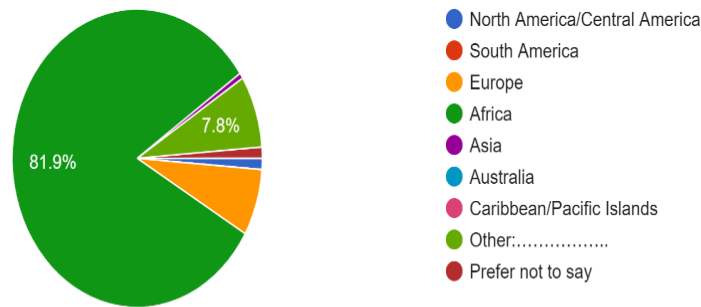166 responses

Figure 4. 3: Distribution based on respondents' employment statues

Source: Author 2023

The figure shows the employment status of the respondents which reveals that (28.3%) had full-time employment, (5%) are part-time employment, (5.3%) are unemployed, (36.1%) are self-employed, (3.6%) are home-maker while (21.7%) are students.

LOCATION Where is your home located?
166 responses

Figure 4. 4: Distribution based on respondents' location

Source: Author 2023

The Figure shows that out of 166 respondents, (9.1%) are from Europe, (81.9%) are from Africa, (0.6%) are from Asia, (7.8%) are from other countries, (0.6%) prefer not to say.

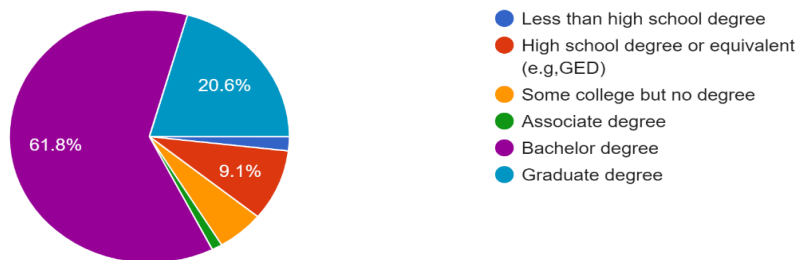EDUCATION What is the highest level of school you have completed or the highest degree you have received?
165 responses

Figure 4. 5: Distribution by level of education

Source: Author 2023

The figure shows that out of 166 respondents, (1.3%) have less than high school degree, (9.1%) have high school degree or equivalent (e.g. GED), (6.6%) have some college but no degree, (0.6%) have associate degree, (61.8%) have bachelor degree and (20.6%) have graduate degree.

Reliability Test of both the Dependent and Independent Research Variables

Cronbach Alpha was used to test the reliability of the instruments

<p align="center">Table 4. 2: Cronbach alpha coefficient table</p>

Variables	Number of items	Cronbach's Alpha	Acceptability
Customers' Trust	17	0.74	0.74>0.7 Acceptable
Personal Trait	9	0.87	0.87>0.7 acceptable
Website Design Features	46	0.73	0.73>0.7 Acceptable

<p align="center">Source: Computed by author, field data 2023</p>

The study found out that a Cronbach alpha coefficient of Customers' trust is 0.74, Personal Trait had a Cronbach alpha coefficient of 0.87, and Website Design Features had a Cronbach alpha of 0.73. According to the findings of Grayson (2004), who said the closer the Cronbach's alpha coefficient gets to 1.0, the greater the internal consistency of the items. So the above results indicate that the research instruments were sufficient and reliable for the study.

Hypothesis testing

Regression Analysis: The specification of the three variables trust, Personal traits and website Design features as illustrated in the presiding model revealed financial performance (R^2=o.6225). based on this model, R^2 unit of 0.6225 indicates a 62.25% in regards to assessed variables of customer

satisfaction on the alibaba e-commerce website can be explained by the differences in three independent variables namely customer trust, website design features and personal trait, the remaining 37.75% not explained means that the remaining of the variance in customer satisfaction is related to other variables which are not depicted in the model.

In this model, the value of an adjusted R2 is 0.6158, slightly less than the value of R. This variance is highly significant by the (F=9.089 and P<0.000) By examining the model summary in conjunction with an ANOVA, it is clear that the model provides a thorough explanation of the possible combinations of predictor variables that might affect the connection with the dependent variable in question. The F ratio's high significance highlights the model's capacity to account for variation, even in circumstances when that volatility may be significant 62.25% in this context, it should be noted that there are other variables that affect customer satisfaction other than the three stated above that need to be studied.

Table 4. 6: Model summary

Table 4.6 Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.750[a]	.623	.616	.049
a. Predictors: (Constant), Costumer's Trust, Personal Traits, Website Design Features				

Source: Field survey; by author, 2023

Table 4. 7: ANOVA

Table 4.7: ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.508	3	9.836	9.083	.040[b]

Residual	173.486	163	1.134		
Total	202.994	166			
a. Dependent Variable: Customer satisfaction					
b. Predictors: (Constant), Costumer's Trust, Personal Traits, Website Design Features					

Source: Field data 2023

Analysis of ANOVA table above shows a positive value of 9.083 with a p-value of 0.04 means that the joint significance test of all variables in the model is significant at 5% level as P<0.05, which implies that the variables correctly predict the model. The result shows that there is a significant relationship (0.04 which is lesser than 0.05), the statistical significance of the model.

Table 4. 8: Model of the study

4.8 Model of the study						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.550	.466		5.470	.000
	Costumer's Trust	.262	.072	.276	3.652	.000
	Personal Traits	.077	.064	.094	1.207	.229
	Website Design Features	.173	.072	.188	2.417	.017
a. Dependent Variable: Customer satisfaction						

Source: Field survey; by Author, 2023

The multi-linear regression model was adopted for this study with customer satisfaction as a dependent variable while customer's trust, Personal Trust and Website Design Features were the independent variables. From the table, it shows that costumer's trust affects customer's satisfaction most, since it has the highest lowest significant value of 0.000, and followed by Website Design Features

(0.017) but Personal Traits does not significantly affect customer satisfaction since the p-value (0.229>0.05).

From the above analysis of the statistics, the researcher can conclude that Website Design Features and Costumer's trust affect costumer's satisfaction on alibaba e-commerce website, and Personal trait had no significant effect on costumer's satisfaction on alibaba e-commerce website

Discussions

From the above analysis of the statistics, the researcher can conclude that the customer's trust affects costumer's satisfaction on alibaba e-commerce website. This study goes a long way to agree with the findings of (Ain Damia Zamry & Syafiqah, 2020) who did a research on the customer trust and customer satisfaction have a positive relationship as both of them have the retention of customers as well as loyalty of customer. The increase in regards to clients' gratification would result similarly to an increase in clients' trust. The significance of trust in e-commerce cannot be overstated, and it is primarily shaped by three key factors: the general reputation of e-commerce, the consumers themselves, and the particular e-commerce website in question (Rahimnia & Hassanzadeh, 2013). The overall perception of electronic commerce significantly influences the level of confidence in engaging in online shopping. The overall trustworthiness of electronic commerce significantly impacts the determination of whether or not to embrace online shopping. Nonetheless, the individual websites enormously contribute towards decision making which specific website to conduct the purchase from. The decision-making process of customers is also influenced by their personal experiences and attitudes. The reputation of e-commerce is primarily manifested through the factors of technology trustworthiness and perceived risk. The quality of individual e-commerce websites is reflected in the factor of perceived site quality. The third source of influences is customers' experiences with the internet.

Also the findings from the regression analysis also showed that website design features affect costumer's satisfaction on alibaba e-commerce website. This implies that a website with greater usability that is

easy to navigate and user friendly is a significant element to determine consumer's satisfaction. This implies that usability is a significant determinant that directly affects the consumer's satisfaction. This study goes a long way to agree with the findings of (Falvin, Guinaliu 2006) study results which showed that the website design features have a positive effect on the consumer's satisfaction. The analytical results of this research also showed that service interaction has an impact on customer satisfaction.

The findings of the study offer support for the influence of personality traits such as emotional instability, stress management, nervousness, depression, and excessive worrying, as well as their associated factors. The findings indicate that the aforementioned factors do not exert a statistically significant influence on customer trust. The findings agree with the work done by (Javier C.,2017) whose results showed that emotional stability has a negligible or non-existent effect on customers' satisfaction, depression does not supersede customers' satisfaction, and worry does not affect customer satisfaction

Conclusions

The results of this study provide support for most of the hypotheses proposed at the beginning of this investigation. Although some relationships have received significant support from the data, the model seems to be reasonably effective with the need for some moderate adjustments. Thus, this model has the potential to serve as a suitable basis for developing a framework for establishing trust in electronic commerce.

To achieve success in the online environment, there are several critical factors that must be considered for effective e-marketing. These include the presentation of rich and essential information to customers, the implementation of a well-designed website that facilitates easy access to information, and the incorporation of e-trust considerations into website design. By attending to these factors, websites can effectively attract customers and persuade them to make purchases. The aforementioned factors are anticipated to exert a significant influence on the efficacy of online platforms like Alibaba Express.

This finding suggests that there is no significant impact of personality on the level of trust that customers place in e-commerce. The fear of customers regarding credit card payment is a noteworthy trust factor among the factors, as it may lead to the e-retailer (Alibaba.com) rejecting the payment and not delivering the requested product or service.

The study addressed additional aims pertaining to the characteristics and procedures of electronic commerce platforms, and the resultant feedback from consumers had a favorable influence on its endurance. The results of the analysis indicate that there is no statistically significant impact of features and practices related to e-commerce on its sustainability. The aforementioned statement suggests that customers place their trust in websites that offer price comparisons, customer comments, product ratings, and guarantee or warranty policies when engaging in transactions or making purchases.

To sum up, the evaluation of customers' assessments can serve as a valuable resource, and the collection of customer feedback regarding web design aids in guaranteeing that a website is developed in accordance with its intended design. The establishment of technical trustworthiness is a crucial factor in engendering trust. Incorporating e-commerce technology into business operations requires careful attention to performance factors such as reliability and scalability, as well as the safeguarding and communication of customers' privacy and data security

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The Impact of Social Media Usage in Knowledge Sharing Practices on Students' E-Learning Performance: Evidence from *North Cyprus' Universities.*

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Abstract

This study examines the impact of social media usage in knowledge sharing on students' eLearning performance. It investigates the moderating effect of the willingness to share knowledge on Social Media Usage relationship with Students' eLearning Performance, also seeks to examine the moderating effect of willingness to share knowledge on the relationship between the use of social media and knowledge sharing practices. Using a convenience sampling technique in collecting data, a structured questionnaire was developed and administered online to collect data from students in Near East University (NEU) and Girne American University (GAU) who are studying full time and using the eLearning system. A total of 394 responses were received from the students of these universities. This study deployed the structural equation modeling analytic approach renowned for its robustness in examining multiple regression equations simultaneously. The variance-based partial least square SEM approach is utilized and uses the ADANCO software for the analysis based solely on convenience. The study findings show that social media usage among students in both universities in the Turkish Republic of Northern Cyprus sampled had a moderate, positive and significant effect on students' eLearning performance.

Keywords: knowledge sharing, eLearning, social media, students, eLearning performance.

Introduction

According to Salloum et al. (2019), eLearning, known as learning with the use of electronic mechanisms for learning as one of educational innovations, has changed the landscape of learning by giving students various opportunities. Given that eLearning has hugely impacted the education system

over the decades, much research has been carried out to explore the adoption of eLearning systems in teaching and learning and understanding the key factors that facilitate its adoption and performance (Tarhini, et al., 2014). According to Li et al. (2012), e-learning has gotten prominent attention as a result of its flexibility, low cost and convenience as compared to the traditional learning system of learning.

The popularity of social media has kept increasing over the years, more and more people are getting acquainted with utilizing social media for different reasons like entertainment, to keep contact with friends and families, for business, for socialization, knowledge sharing and more. Social media is a term used to refer to a group of internet-based applications that makes way to create, update, analyze or link up to other generators of content (Kaplan & Haenlein, 2010; Naeem, et al., 2019). Social media applications have introduced new changes to the way people communicate, connect, associate and share content in the workplace (Ahmed, et al., 2019). Social media application is also widely used amongst students and has been used as a means of sharing knowledge about studies especially in the covid 19 pandemic. Just as eLearning was used for the continuity of studies, so have social media applications been used for the continuity of knowledge sharing amongst students. Social media applications which have had an increasing popularity over the years has created an opportunity for students to easily be able to frequently communicate to other students and even teachers. It highly supports the knowledge sharing process in institutions and amongst students as it makes room for smart and easy communication (Naeem M. 2019). Jones et al. (2009) mentioned that "Social Media" is known to be used by students as a tool for communication which enables students to participate in sharing knowledge.

Fullwood et al. (2019) referred to knowledge sharing as the process of exchanging information between groups of individuals in a network or organization. According to Chiu et al. (2006) Implicit or explicit knowledge are the two types of knowledge that can be transferred (Almuqrin, et al.,2020). Cummings (2004) states that Sharing knowledge means helping others to learn, coming together with other people to come up with problem solutions, new ideas, or implementation of operations (Al-Shibly, et al., 2019). Students reach out to share or get knowledge from one another to address issues in their studies.

The sharing of knowledge between students has always been an important part of their study process, according to Naeem (2019) "Knowledge is power". Knowledge sharing between students leads to increased awareness, better understanding and gives students a greater chance for better performances. In the traditional face to face classroom system of learning, knowledge sharing amongst students was mostly done face to face. But the coronavirus pandemic came with social distancing, students could no longer meet and share knowledge as before. Naeem (2019) mentioned according to Brown (1988), students are required to be responsible for their education proactively by learning with both individual responsibility and communal sharing. This shows the relevance and the need for knowledge sharing amongst students.

Statement of the Problem

E-learning has been used to keep education going, it has been completely employed or combined with the traditional classroom system of education worldwide. Therefore, there's no denying that eLearning has been playing an important role in the continuity of educational activities. Despite the fact that eLearning has been fully employed and used by most institutions, most students and even lecturers are still trying to adapt, accept and understand the system. The sharing of knowledge about how to go about using the eLearning system systems between students and lecturers could go a long way to increase adaptation, acceptance, and better understanding of the eLearning system.

Knowledge sharing between students has been an important part of education in the traditional system of education where it is mostly done through physical interactions like in social gatherings, sometimes after face-to-face class in the school premises and knowledge sharing is still as important for the eLearning system of education. To keep the knowledge sharing going and still maintain social distancing, students are making use of social media platforms. Knowledge sharing amongst students facilitates their learning process and is therefore essential as it keeps students informed, improves their understanding and gives them higher chances of succeeding in studies. To adapt to the change in the system of education, students and even lecturers have turned to the sharing of knowledge and keeping in touch with the use of social media.

Research Questions

In order to achieve the objective of this research, the following questions needs to be answered;

Does the use of social media affect students' eLearning performance?

What effect does the use of social media have on knowledge sharing?

Does knowledge sharing have an effect on students' eLearning performance?

What effect does willingness to share knowledge have on knowledge sharing and eLearning?

Purpose of the Study

The aim of carrying out this research is to examine how social media platforms, through knowledge sharing, can impact the performance of students in eLearning. To investigate the moderating effect of the willingness to share knowledge on the relationship between the use of Social Media and Students' eLearning Performance. It also seeks to examine the moderating effect of willingness to share knowledge on the relationship between the use of social media and knowledge sharing practices.

Literature Review & Hypothesis Development

Social Exchange Theory

The social exchange theory which emerged in social psychology by George Homans (1959) The Social Exchange Theory has often been used as a theoretical base for exploring the knowledge sharing behaviors of individuals (Liang, et al., 2008). The Social exchange theory states that the aim of interpersonal interactions is to obtain maximum benefit and minimize costs (Mbasera, 2019). Those costs may not just be financial but may include time, efforts or even fears others are going to use the information they share (Mbasera, 2019). According to this theory, people compare the estimated benefits and risks or cost of social relationships and when the cost is more than the rewards, they will end or leave that relationship. Social exchange theory explains that individuals adjust their association with others examining the cost and benefits of associating with other people (Liang, et al., 2008;

Mbasera, 2019). Therefore, according to social exchange theory individuals get into social interactions that are expected to end up in maximum and minimum cost. The benefit may not just be tangible, but could also include someone wanting to gain approval, some kind of position or even respect as a result of their interaction with a particular social group (Liang, et al., 2008). It also holds that a person may not get involved in certain activities unless they believe that the outcome will be positive (Okyere & Nor, 2011). Therefore, in the view of the social exchange theory, what influences and determines if a person will get involved in a particular behavior or activity depends on what they think they will benefit and at what cost (Mbasera, 2019).

Social exchange theory and knowledge sharing
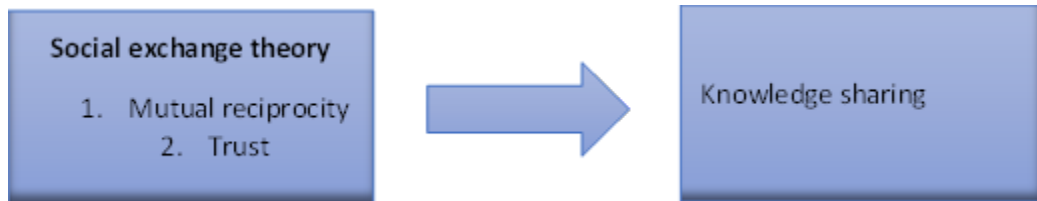
Figure 2: Social Exchange Theory, Adapted from Okyere-Kwaye & Noe (2011) (Mbasera, 2019).

The social exchange theory has commonly been used as a theoretical foundation to look into the knowledge sharing behavior of individuals (Liang, et al., 2008). The foundational contrives of the social exchange theory are mutual reciprocity and trust (Okyere & Nor, 2011). Mutual reciprocity implies that individuals are more likely to interact socially when there is the expectation of gaining some positive reward from others (Okyere & Nor, 2011). For example, a student will be motivated to make use of social media platforms, get in touch with other students and share information if they will also benefit from that action in some way. The trust concept is also a relevant consideration for social interactions in social exchange theory. Person tends to behave in a collaborative way based on the level of trust they have in a system or community, and will not be interested in an activity when they feel unsure about the future benefit of that interaction (Okyere & Nor, 2011). This implies that trust amongst people develops when they are sure that association with one another will not affect them negatively, but when a person thinks of others as not trustworthy, they will likely not associate or share

information (Okyere & Nor, 2011). For instance, students or other individuals will likely associate and share knowledge with others who they can trust with information shared with them.

The Concept of Knowledge sharing

Tan (2009) mentioned that since the Ancient Greeks first began to learn about human knowledge, knowledge has been a disputed topic. The saying "knowledge is power", which is a well-known slogan that came from Francis Bacon (1561-1626), has been argued since the early 1990s because knowledge is a complicated, controversial and ambiguous concept. Knowledge can mean something different for each person and therefore there are various perspectives of knowledge. Holsapple (2013) saw knowledge as being able to do something or to carry out a type of skill, he also thought of knowledge to be an intangible and human asset which can be exchanged through interaction between two or more (Abbas, 2018). Knowledge however could be either tacit which is knowledge in the minds of individuals rooted in action and experiences or it could be explicit which is knowledge that has been described in language. Explicit knowledge is known as precise and codifiable, while tacit knowledge is known to be more intangible and personal (Tan, 2009).

Methodology

Philosophical Assumptions

Guba and Lincoln (1994), described research philosophies as the group of feelings related to the way people study the world (methodology), the way the world functions (ontology) and the way it ought to be recognized (epistemology). Methodology as mentioned by Mingers (2003), Orlikowski and Baroudi (1991), Blaikie (2000), refers to the general principles that highlight how we illustrate that the knowledge created is reliable. Meanwhile ontology asks questions concerning the form and type of the reality to be known and epistemology asks questions concerning what can be known and the relationship of the knower. The four schools of thoughts as mentioned by Lincoln et al. (2011), Guba

and Lincoln (1994) that highlights the main paradigms that structure the social science research are critical theory, constructivism or interpretivism, positivism and post positivism.

In critical research Myers and Avison (1997) saw it to presume that "social reality is historically constituted and it is produced and reproduced by people. Critical researchers recognized that although people deliberate actions to change their social and economic situations, the ability for them to do so is restricted by different forms of political, ethnic and social domination". According to Bryman and Bell (2011), there are two major techniques of exploration in crucial studies which are observation and interview methods. The positivist approach is seen to be more useful for our research unlike the critical approach and interpretivist approach. With constructivism or interpretivism research according to Bryman and Bell (2011), constructions and social actors can be used to get access to reality. Kaplan and Maxwell (2005) mentioned that unlike the positivist method, constructivism presets no independent variable as well as dependent variable. According to Struab et al (2005) constructivism provides profound understanding of social circumstance, therefore the method for data collection it makes use of is qualitative but according Winfield (1991) it does not have the ability to generalize the findings to a larger population, hence it is seen as less suitable as compared to positivist approach for our research.

Orlikowski & Baroudi, 1991 stated that the positivist shows the proof of measures of variables that are quantifiable, formal propositions, testing of hypothesis, and presenting a pictorial presentation of conclusions concerning a situation with a sample from a certain population. According to Straub et al (2005) the statistical point of reasoning was used for the explanation of positivism, where there was an argument that falsify the null hypothesis is the aim of statistics and in case the null hypothesis is rejected then the theoretical hypothesis is supported (Straub et al 2005). This research makes use of the positivist approach because it includes research hypothesis testing, quantifiable measures of variables towards students' eLearning performance and also provides evidence of propositions. Additional discussion about the selection of this method is available in the upcoming section.

For the post-positivist approach, it is placed in the middle of positivism and interpretivism (Lincoln, et al., 2011). According to Creswell (2008) post-positivists acknowledge that when studying human behavior and human actions, those carrying out the research cannot be confident with their argument

of knowledge. The findings obtained in the post-positivist research by researchers are focused on monitoring and measuring the objective that is often present in the world. This school of thought was not chosen and according to Onwuegbuzie (2002) this approach fails to explain the unpredictability of human nature.

Choosing the Positivism Paradigm for Our Research

After explaining and differentiating all the fundamental approaches and given the type of this study, the positivist approach was selected (Hall & Howard, 2008). The following points are justifications for using this approach. Among all the approaches, the positivist approach was the most superior one and this approach has been used by greater than 75% research (Mingers, 2003). This research intends to examine the moderating effect of the willingness to share knowledge on Social Media Usage relationship with Students' eLearning Performance, also seeks to examine the moderating effect of willingness to share knowledge on the relationship between the use of social media and knowledge sharing practices. Therefore, this research concerns the examination of social subjects involving the measurement of student's behavior. And demands that the researcher is taken out or isolated from the study's aim (Saunders, et al., 2009).

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The study puts forward different hypothesized relationships to be tested and measured quantitatively in the situation of students' eLearning performance. According to Bryman (2008) positivist method is usually connected with methodology that is quantitative, and then makes use of a deductive approach. It thereby justified this research from the methodological point. The research's purpose needs a good established conceptual framework and clearly stipulates the relationships between the constructs.

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The Structural Equation Modeling will be used in this study so as to test hypotheses, mediator and moderator. According to (Struab, et al., 2005) the statistical packages used describe the positivist approach.

Strategy of Inquiry (Quantitative /Qualitative)

The decision on whether to use a quantitative or qualitative methodology affects how the data for a study will be gathered. The between the two approaches will be discussed in this section so as to explain the employment of the quantitative method in this study. Quantitative research methods as Bryman (2008) stated aims to gather data numerically and find out the link between variables that can be measurable in a general way of cause and effect. Meanwhile, the qualitative research method is known to examine and uncover meanings and patterns rather than numbers (Creswell, 2008). According to Punch (2005) and Creswell (2008), qualitative type of research uses an inductive approach to get through the process of collecting and analyzing the data. According to Johnson and Onwuegbuzie (2010) and Lichtman (2006), the following are the accepted differences of between qualitative and quantitative;

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The aim or purpose of qualitative research is to comprehend and explain social interactions and present a complete description. Meanwhile for quantitative, the aim is to test hypotheses, examine cause and effect, and generalize results. Qualitative research studies smaller groups which are not randomly selected, while quantitative research studies larger groups which are randomly selected. The type of data collected for qualitative research are usually in Words, pictures, or objects meanwhile that of quantitative are statistical and numerical. The type of data analysis for qualitative research has to do with identifying patterns, features, themes. And the type for quantitative involves identifying statistical relationships.

In qualitative research the researcher may influence the participants. Meanwhile with the use of quantitative it is not possible for the researcher to have an effect on the participants, the participants' attributes are deliberately kept from the researcher. The results in qualitative research are usually not generalizable, and findings are usually specific and specialized to a specific subject. For quantitative research, the findings can be more generalized and applied to different situations and different populations.

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The scientific approach for qualitative research is bottom–up or explanatory. Meanwhile, the scientific method for quantitative research is top-down or confirmatory.

The research objectives for qualitative research tends to explore, discover, and construct. While the research objective of quantitative research tends to describe, explain, and predict. The aim of this study is to investigate and test hypothesized relationships in the situation of students' eLearning performance objectively with the researcher kept apart from the purpose of the research. The method of data survey was used for data collection from a big size of participants for the analyses of the data with the use of structural equation modeling. Normally, this data is shown numerically and is therefore classified under the quantitative method and not qualitative method (Bryman, 2008; Creswell, 2008). Therefore, a quantitative method was used for this study in both the collection and analysis of data.

Survey Research method

The researcher used the survey approach for this research so as to collect data from the participants in North Cyprus because the objective of this study is to examine the students' eLearning performance within which includes the collection of data from a significant amount of participants particularly the utilization SEM for the data analysis, that being said the use of a different research approach will costlier and consuming more time (Hair, et al., 2011).

In this study, a number of research hypotheses requires empirical testing of the suggested conceptual model and is thereby appropriate that the survey research approach is used. According to Saunders et al., 2009, a research making use of positivist quantitative methodologies works with the survey approach. When carrying out survey research, a large amount of data is gathered and it enables the generalization of the findings to the general population. This research involves the measurement of student's behavior which are social subjects where the aim of the study is completely secluded from researchers (Saunders, et al., 2009); thus, as compared to the other approaches, the survey approach is more relevant and appropriate. Data is often gathered through a number of methods within the survey research approach, such as telephone interview, mail, self-administered questionnaire and email (Zikmund, 2009). The study made use of self-administered questionnaire for the data collection

because, according to Zikmund (2009), Bryman (2008), Sekaran and Bougie (2011), data can be collected from a great number of participants simultaneously in an easy, quick, economical and efficient manner in comparison to other methods like interviews. Self-administered questionnaire is established with ease and administered. For instance, some amount of administrative skills are often needed for interviews (Sekaran & Bougie, 2011). There is increased participants' privacy, because concerns like confidentiality issues and anonymity issues were handled in the brief letter before the questionnaire. Collection of the questionnaires as soon as it has been answered will ensure a response rate that is greater (Sekaran & Bougie, 2011). Respondents will be able to comprehend the concepts on the different questions they are giving answers to, by seeking clarity, this in turn minimizes the study exception (Aaker, et al., 2009).

For data collection, questionnaires have generally been employed in research studies with contexts that are like that of this study.

Research Design

A research design gives general direction and structure for the collection of data and the analysis, according to Bryman and Bell (2011). The use and type of data collection, the budget and sampling techniques will be influenced by the choice of an appropriate research design (Hair, et al., 2011). When creating the study, the researcher ought to produce a series of logical decisions concerning the researcher's role, the study's aim, the investigation category, the place of the study, the data analysis degree and time horizon (Sekaran & Bougie, 2011). Considering the directions according to Sekaran and Bougie (2011) concerning the research design, the aim of this study is the testing of the hypotheses formulated using the conceptual model. Hypothesis testing can be used to easily understand the relationships that exist among variables; thus, studies often examine and describe the characteristics of specific relationships between variables.

This study is like all other studies that make use of a correlation category of investigation because it is carried out in a non-contrived setting. Due to the fact that the method of collecting employed in this research was centered on survey and no interference of researchers was involved. Making use of SEM

needs a relatively big respondent quantity and a cross sectional design was chosen in this study as data can be gathered only one time and across a specific period of time.

Participants/Population and Sample

As mentioned by Bryman and Bell 2011, Russ-Eft and Preskill 2009, before moving to the stage of the data collection procedure, an important concern of the study so as to represent the intended population is the technique for sampling. Four crucial issues according to Fowler (2009) when scheming the sample to be taken in consideration includes; the size of sample, the decision of either non-probability sample or probability sampling method, the response rate and the sample frame.

The Sampling choice

Researchers usually acknowledge the relevance of gathering data from the participants that takes the place of the general population as a result of time and financial constraints. When designing a sample according to Blumberg et al (2008), the researcher should take into consideration several decisions, consider the type of research problem and the particular questions that were established from the objectives, budget and time. According to Bryman and Bell (2011), the two types of sampling techniques are probability and non-probability.

The base of the concept in probability sampling is a random selection of the sample. According to Groves et al. (2009) and Blumberg et al. 2008 this gives assurance for a guided process to guarantee that every individual within the population has the possibility of being selected (Groves, et al., 2009; Blumberg, et al., 2008). The simple random, systematic, stratified and cluster sampling are part of the random probability technique.

There is an equal probability of selection of every element of the population in the sample in Simple Random Sample (SRS), a completed numbered list of the population is needed in this method. Just like the simple random sample method, systematic sampling requires the population's full list. The researcher uses the set skip interval from the beginning element to select the subjects and uses an add skip interval for the next elements to be. It is a quicker, cheaper and simpler method than SRS. A process with two steps is needed in stratified random sampling, the person carrying out the study is

likely to divide the population either equally or unequally into incompatible and inclusively comprehensive subgroups in the first step. Meanwhile the SRS method is used by the researcher in order to choose from each subgroup in the second step. In adding the precision without adding the cost, sampling error is being reduced in Stratified sampling (Blumberg, et al., 2008; Bryman & Bell, 2011). By choosing the intended population's sample from a number of little geographic regions in cluster sampling, researchers will likely deduct the cost of collecting data.

First of all, researchers divide the population into exhaustive and exclusive clusters and then make use of SRS to choose a random sample of groups. Later, the subjects' probability sample is either chosen from every cluster or subgroup in the sample or for every chosen cluster, every participant among every subgroup in the sample is involved. This method is less statistically efficient but more cost efficient than other random methods. The non-probability sampling technique includes convenience sampling methods, quota, judgmental and snowball. From the intended population, the choice of units is based on the researcher's professional judgment and knowledge which is also known as purposive sampling. The attributes of the subjects usually needed in this method already are visible to the researcher and to verify if they are relevant to meeting up with what is needed in the research, then the researcher will target the prospective sample members. The intended population as control groups is being shared by Quota sampling and the sample selection is established on judgment methods or convenience to ensure the same depiction of subjects. The researcher gets the chance with convenient sampling to choose the sample subjects from the intended population in accordance with subjects who want to and are reachable with ease to be employed and be part of the study. The convenience sampling method is least time-consuming and requires the lowest cost when compared to all the other methods. Convenience sampling technique is generally the highest employed technique particularly in social and behavioral science studies according to Stangor (2014).

Why use convenience sampling for this study?

As earlier mentioned, the most frequently used sampling technique in social and behavioral sciences study is the convenience sampling technique. The researcher gets the chance with convenient sampling to choose the sample subjects from the intended population in accordance with subjects who want to

and are reachable with ease to be employed and be part of the study. The technique is known to be that which consumes the lowest time and the least expensive as compared to all the other methods.

It was not practical in this study, to reach for data to enable random sampling to be carried out with the limited budget and time which led to the choice to make use of the non-random technique with the possibility of relevantly collecting the sample size required for the analysis. The population targeted are Near East University (NEU) and Girne American University (GAU) students studying full time and using the eLearning system, these students share many common similarities. This research used the convenience sampling method to collect the data which presumes a homogeneous population, hence generalizing the results and using the sample to represent the general population which should be done with caution.

Furthermore, in the effort to not limit the collection of data to one university in North Cyprus and for the increment of the reliability of the findings in this research, the targeted participants were not limited to one but worked with two universities in North Cyprus. As a result of the large target population for this research, this thesis adopted the convenience sampling method, also as a result of limited time and limited finances.

Population

As Zikmund et al (2009) stated, the target or intended population is the whole group of participants or subjects from which the researcher intends to recruit in the study to investigate and answer the research questions and achieve its objectives. Regarding the Near East University population for this study, according to the information obtained from the NEU official website (https://neu.edu.tr/about-near-east/about-us/?lang=en), the total number of students is 26000 students. And for the Girne American University population, according to the GAU official website (https://www.gau.edu.tr/en/), there are 18000 students. With both universities actively using eLearning systems to support face to face education, they are older well-established universities in North Cyprus. This study therefore targeted all the students of these two universities which amounts to 44000 students.

Sample Size

For a study within the targeted population, it is important to state and justify the sample size. Using a large sample within the study according to Bryman (2011) cannot assure accuracy and will therefore waste time and money. Contrary to that, making use of a little sample size particularly when making use of statistical data analysis like SEM, will lead to reduced reliability in the results of the study (Hair, et al., 2011). Saunders et al (2009) stated that the following rule of thumb ought to be taken into consideration when determining the sample size for a specific target population, for a target population >10000 and ≤ 10000 given a 95% confidence level for 5% margin of error, the appropriate sample size is 383.

Implementation of the sampling process

Participant selection for this study from NEU and GAU was according to the ability of the researcher to reach participants and the participants' availability. Based on this selection method the ability of the results to be generalized to the whole population might be affected because of the unequal opportunity for every other student to take part in the study.

Non-response bias and Methods to Achieve High Rates of Response

The intention of the sample is to represent the entire population, therefore there is a need for a relatively high rate of response to attain a big sample will add the confidence level along with reducing the collected data's bias (Saunders, et al., 2009). Several reasons may affect the

response rate according to Manfreda et al (2002), which can lead to the refusal from potential participants in filling the questionnaire. Factors like difficult or sensitive questions, the questionnaire length and asking long and boring questions. In this research the following efforts were made to increase the rate of response and do away with non-response bias. The questionnaire was measured on an ordinal 5-point Likert scale so that participants pay more attention to the questions. The questionnaire was designed in simple and easy language and did not use open-ended questions. An introduction explaining the aim and reason for the study was provided at the beginning of the questionnaire for participants to see prior to his/her participation to motivate them to participate. It

also clearly states that personal information about them will not be asked and will not be shared with third parties strictly confidential.

The questionnaire was distributed by sharing the link with a group of potential responders with the use of social media platforms like WhatsApp, Facebook, LinkedIn and Instagram. The researcher sent the link to the questionnaire directly to respondents and urged them to recruit other respondents from their other NEU and GAU contacts as well as encourage them to fill and

share the questionnaire too. Within 8 weeks, a total of 394 responses were received.

Validity and Reliability

To examine the internal consistency, construct reliability and convergent validity of the constructs, this study examines Cronbach's alpha values, Dijkstra-Henseler's rho, Jöreskog's rho and the Average Variance Extracted (AVE) values. More details can be seen in the results section,

Data Collection Tools/Materials

A structured questionnaire was developed and administered online, below is an explanation on how the questionnaire of the study was developed and structured.

Questionnaire forming and Design

There was an establishment of a questionnaire to gather the needed data needed to get answers to the questions of this research and attain the underlying aim of the research (Saunders, et al., 2009). Elements of the questionnaire ultimately were obtained from the literature review concerning social media usage, knowledge share, willingness to share knowledge and eLearning performance which was focused on the suggested framework and the hypotheses of the study. For procedures to develop a questionnaire, this research followed Gupta et al (2018) and Alamri et al (2020) for the use of social media, Alamri et al (2020) for students' eLearning performance, Shava et al (2018) and Alamri et al (2020) for knowledge sharing practices and Zhang et al (2020) for willingness to share knowledge. Therefore, the questionnaire consists of 5 sections with 30 questions. The first sections include the

demographic attributes of respondents. The second section includes students' use of social media, the third section involves students' eLearning performance, the fourth was based on students' knowledge sharing practices and the fifth section handled students' willingness to share knowledge. The measurement of the questionnaire was done using the five-point Likert scale, where (1) strongly disagree (2) disagree (3) uncertain (4) agree and (5) strongly agree.

Data Analysis Procedures

The research model has one dependent variable, one independent variable, one mediator and one moderator. All of these variables are measured on an ordinal scale using a Likert scale, because it has one dependent variable and one independent variable. Normally according to Emeagwali (2015), what should be used for the analysis is simple linear regression or multiple regression.

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Web-based Inferential Statistic Selector [WBISS]
O. Lawrence Emeagwali, PhD

HOME

TYPES OF ANALYSIS

Differences

Interactions

Relationships

Predictions

Interrelationships

Trend Analysis

Predictions > 1DV > Interval/Ratio > 2 or more > Interval/Ratio > Multiple Linear Regression-Stepwise/Hierachical

Dependent Variables (DV)		Independent Variables (IV)		
No.	Measurement	No	Measurement	Appropriate Statistics
1	Interval/Ratio +	2 or more	Interval/Ratio =	Multiple Linear Regression-Stepwise/Hierachical

Predictions with 1 Dependent Variables (DV) with Interval/Ratio Measurement with 2 or more Independent Variables (IV) with Interval/Ratio Measurement the Appropriate Statistic can be either Multiple Linear Regression-Stepwise/Hierachical.

Back

But because of the presence of secondary variables, a mediator and a moderator, the researcher has decided to use structural equation modeling because according to Emeagwali (2015) and hair et al (2011), it is the most robust technique for analyzing models with both primary (Independent variable and Dependent Variable) and secondary (Moderator and Mediator) variables.

For the above-mentioned reasons, data for this study will be analyzed using the structural equation modeling technique via the SMART PLS or ADANCO PLS software. The type of structural equation modeling that would be carried out is the variance-based structural equation modeling approach, it is known to be better than the covariance at predicting outcome variables than covariance-based approach which is better at confirming theories (Hair, et al., 2011). The SEM analysis will be carried out using the two-stage approach which entails the assessment of the mensuration model after which an evaluation of the structural model is carried out. More details about the SEM procedure will be provided during the actual thesis development phase.

Results & Findings

In particular, this study deployed the structural equation modeling analytic approach renowned for its robustness in examining multiple regression equations simultaneously. Broadly, two types of structural equation models can be conducted: variance-based SEM – typically based on the partial least square statistical technique and appropriate when the aim of a study is to predict changes in the levels of one or more outcome variables, or covariance-based SEM – usually based on the maximum likelihood statistical technique and appropriate when the aim of the study is to test theories (Hair et al., 2017). Also, multi-level SEM is a variant of the SEM family of analyses which allows researchers to examine phenomena across multiple levels. However, because the primary aim of this study is the examination of the predictive impact of the predictor variable: social media usage on levels of the outcome variable: students' eLearning performance, as well as the effect of secondary mediating (knowledge sharing practices) and moderating (willingness to share knowledge) variables on the primary effect, the variance-based partial least square SEM approach is utilized. Moreover, while two popular PLS SEM software regularly feature in partial least square research – Smartpls and ADANCO; this study uses the ADANCO software for the analysis based solely on convenience. Prior to a detailed outline of the

SEM analytic procedure and findings, it is pertinent that a description of the participants is first of all presented. This is carried out in the ensuing section.

Demographic Description of the Study Participants

All in all, 394 students participated in this study and as seen in the descriptive statistics table below, the majority of the participants were female students of both universities (N=199; 50.50%) aged between 20 and 29 (N=202; 51.30%) and holding master's degrees (N=173; 43.90%).

Table 1: Demographic Description of the Study Participants

Demographic Variables	Categories	Total N	%	M	SD
Gender	Male	195	49.50	1.51	0.501
	Female	199	50.50		
Age	Below 20	51	12.90	2.36	0.895
	20 – 29	202	51.30		
	30 – 39	100	25.40		
	40 – 49	31	7.90		
	50 and above	10	2.50		
Education Level	PhD	68	17.3	2.46	1.130
	Masters	173	43.90		
	Bachelors	95	24.10		
	Diploma	20	5.10		
	Others	38	9.60		

Analyzing the Measurement Model

Prior to the evaluation of the structural model of the hypothesized paths, it is pertinent that the psychometric properties of the measurement instruments administered – as reflected in the data collected are tested. To do this, this study adopts the recommendations of Hair et al., (2017) composite

and item reliability, convergent validity as well as discriminant validity tests were carried out. Since the type of psychometric tests depend to a large extent on the nature of the constructs themselves, it is important to state at this juncture, that all of the hypothesized variables were measured using a reflective scale and no formative construct was included in the study.

Determining Construct Reliability

To examine the measurement model's reliability, this study examined the factor structure of the measurement model by observing the magnitude to which items load onto their constructs. Following the recommendations of such prominent SEM scholars such as Hair et al., (2017) and Gaskin, (2018) that the extraction and examination of factor loadings for all of the hypothesized constructs be carried out and values above 0.5 indicate adequate item or indicator reliability. Observations of the factor loadings for the hypothesized constructs in this study are presented in table 2. As observable, all of the items adequately loaded unto their construct because all factor loadings were above 0.5. Thus, we confirm that the underlying indicators in the measurement model are reliable.

Table 2: Indicator Reliability and Factor Loadings

Indicators		Loads
Use of Social Media *[Gupta et al., (2018), Alamri et al., (2020)]*		
UoSM1	I use social media applications to solve my academic problem.	0.7029
UoSM2	I use social media applications to do research work.	0.6963
UoSM3	I use social media applications for online academic group discussion.	0.7094
UoSM4	I communicate with my friends via social media applications for preparation of exams.	0.7840
UoSM5	I use social media applications for collaborative learning.	0.8518
UoSM6	I use social media applications to learn about my curricular aspect.	0.7451
UoSM7	I use social media applications to seek help from my teachers.	0.8056
UoSM8	I feel that using social media applications makes it easy to reach classmates and teachers.	0.8229
UoSM9	Social media applications do not require a lot of my mental effort	0.5255
Students' eLearning Performance *[Alamri et al., (2020)]*		
SELP1	The use of social media applications has improved my comprehension of the concepts studied.	0.8366
SELP2	The use of social media applications has led to a better learning experience in eLearning.	0.8115
SELP3	Social media applications have allowed me to better understand my studies.	0.8789
SELP4	Social media applications are helpful in my studies and make it easy to learn.	0.8972
SELP5	Social media applications improve my academic performance.	0.8966
SELP6	I feel that using social media applications will be easy in my studies.	0.8562
SELP7	I believe that using social media applications enhances my effectiveness.	0.8689

SELP8	Social media applications enable me to accomplish tasks more quickly.	0.829 6
SELP9	Social media applications enhance effectiveness in my studies.	0.895 7
Knowledge Sharing Practices *[Shava et al., (2018), Alamri et al., (2020)]*		
KSP1	I enjoy sharing knowledge with my classmates via social media applications	0.841 2
KSP2	It seems to me that my classmates enjoy sharing their knowledge with others via social media applications.	0.784 6
KSP3	It seems to me that social media applications facilitate sharing knowledge among people.	0.822 6
KSP4	It seems to me that my classmates share the best knowledge that they have via social media applications.	0.820 6
KSP5	I go to my social media applications to share knowledge I know about a particular subject.	0.823 3
KSP6	I come to my social media to share my skills.	0.793 2
KSP7	I use social media applications to share new ideas.	0.858 2
KSP8	Social media applications allow the exchange of information with peers.	0.712 3
KSP9	Social media applications allow the exchange of information with lecturers.	0.818 3
Willingness to Share Knowledge *[Zhang et al., (2020)]*		
WTSK1	I intend to share knowledge with my classmates more frequently in the future	0.849 7
WTSK2	I will provide my knowledge at the request of other students.	0.840 6
WTSK3	I will try to share my knowledge with classmates.	0.875 6
WTSK4	I enjoy helping classmates by sharing my knowledge.	0.855 2

Similarly, to examine the internal consistency, construct reliability and convergent validity of the constructs, this study examines Cronbach's alpha values, Dijkstra-Henseler's rho, Jöreskog's rho and the Average Variance Extracted (AVE) values. According to Saunders et al., (2002), Hair et. Al., (2017), Fornell & Lacker, (1981) and Henseler, Ringle & Sinkovics, (2009), Cronbach Alpha values should be above 0.60, AVE values should be above 0.50 while Dijkstra-Henseler's rho and Jöreskog's rho should

both be above 0.70. As seen in table 3, all alpha values were above 0.60, all AVE values were above 0.5 while all Dijkstra-Henseler's rho and Jöreskog's rho values were above 0.70. Thus, the findings confirm the overall construct reliability and convergent validity of the measurement model.

Table 3: Construct Reliability and Convergent Validity

Construct	(ρ_A)	rho (ρ_c)	(α)	AVE
Use of Social Media	0.9033	0.9165	0.8960	0.5533
Student's eLearning Performance	0.9577	0.9636	0.9574	0.7465
Knowledge Sharing Practices	0.9366	0.9446	0.9337	0.6549
Willingness to Share Knowledge	0.8839	0.9160	0.8782	0.7316

Notes: ρA = Dijkstra-Henseler's rho; ρc =Jöreskog's rho; AVE=average variance extracted; and α=Cronbach's alpha.

Determining Construct Validity

Next, to examine the validity of the measurement model, we first of all deploy the Fornell and Larcker criterion for the determination of discriminant validity. This criterion requires that all inter-construct correlations for each construct must be lower in value compared to the square root of AVE for that construct (Fornell & Larcker, 1981). From the table below, it is obvious that all square root of AVE values (in bold on the diagonal) are higher that all of the inter-construct correlations for all of the hypothesized constructs within the study, hence, using the Fornell and Larcker criterion, this study establishes the discriminant validity of the measurement model.

Table 4: Discriminant Validity – Fornell & Lacker's Criterion

Construct	1	2	3	4
Use of Social Media	0.7440			

Student's eLearning Performance	0.6683	0.8640		
Knowledge Sharing Practices	0.7281	0.6553	0.8092	
Willingness to Share Knowledge	0.4001	0.3630	0.5562	0.8553

Notes: Squared correlations; square root of AVE in the diagonal.

More recently however, a new method for the evaluation of discriminant validity of measurement models was introduced. This method known as the Heterotrait-Monotrait ratio also known as HTMT ratio was introduced as a better technique for the evaluation of the presence of discriminant validity (Henseler et al., 2015). The criteria suggest that measurement models whose HTMT values are below the threshold of 1, exhibit discriminant validity while measurement models with HTMT values above the threshold of 1 do not exhibit discriminant validity (Henseler et al., 2015). As observable in the HTMT table below, the measurement model used in this study has all of the hypothesized constructs exhibiting HTMT values below the threshold of 1 thus confirming the presence of discriminant validity.

Table 5: Discriminant Validity – Heterotrait - Monotrait (HTMT) Criteria

Construct	1	2	3	4
Use of Social Media				
Student's eLearning Performance	0.8796			
Knowledge Sharing Practices	0.9292	0.8505		
Willingness to Share Knowledge	0.7084	0.6519	0.8162	

Determining Indicator Multicollinearity

The final psychometric property of the measurement model examined is the presence of multicollinearity especially among the items of each construct. Multicollinearity is an undesirable property of measurement models and where present may indicate that two or more indicators or constructs are too closely correlated with one another that it might be difficult to discriminate or differentiate one indicator from another or one construct from another. Hair et al., (2017) recommends that multicollinearity values (usually reflected in variance inflation factor (VIF)) below 5 indicate the absence of multicollinearity while values between 5 and 10 indicate the presence of a moderate level of multicollinearity, while values higher than 10 indicate a chronic incidence of multicollinearity. As observable in the table below, all of the indicators of the constructs in this study's measurement model all have VIF values below 5, indicating the absence of multicollinearity.**Analyzing the Structural Model**

Having evaluated the psychometric properties of the measurement model and established the reliability and validity of the underlying constructs, the second stage of the structural equation model analysis is the examination of the structural model. This was done in two categorical phases (Please see model 1, 2a and 2b blow). In the first phase, the structural model is examined without the moderating variable, while in the second phase, the structural model is conducted with the moderating variable present. This phased analysis of the structural model is solely to structurally accommodate the computation of the interaction effect of the moderating variable. In the results table below, results of the final structural model assessment conducted as reflected in model 2b are presented.

Table 6: Indicator Multicollinearity

Indicator	VIF Values			
	UoSM	SELP	KSP	WTSK
I use social media applications to solve my academic problem.	2.1845			
I use social media applications to do research work.	2.1165			
I use social media applications for online academic group discussion.	1.7969			
I communicate with my friends via social media applications for preparation of exams.	2.6610			
I use social media applications for collaborative learning.	3.0761			
I use social media applications to learn about my curricular aspect.	1.9835			
I use social media applications to seek help from my teachers.	2.4720			
I feel that using social media applications makes it easy to reach classmates and teachers.	3.0682			
Social media applications do not require a lot of my mental effort	1.3786			
The use of social media applications has improved my comprehension of the concepts studied.		3.1154		
The use of social media applications has led to a better learning experience in eLearning.		2.6165		
Social media applications have allowed me to better understand my studies.		3.7700		
Social media applications are helpful in my studies and make it easy to learn.		4.5200		

Social media applications improve my academic performance.	4.8061
I feel that using social media applications will be easy in my studies.	3.2325
I believe that using social media applications enhances my effectiveness.	3.8254
Social media applications enable me to accomplish tasks more quickly.	2.9758
Social media applications enhance effectiveness in my studies.	4.4078
I enjoy sharing knowledge with my classmates via social media applications	3.0516
It seems to me that my classmates enjoy sharing their knowledge with others via social media applications.	2.2572
It seems to me that social media applications facilitate sharing knowledge among people.	2.5300
It seems to me that my classmates share the best knowledge that they have via social media applications.	3.0812
I go to my social media applications to share knowledge I know about a particular subject.	2.9975
I come to my social media to share my skills.	2.9478
I use social media applications to share new ideas.	3.6766
Social media applications allow the exchange of information with peers.	2.1673
Social media applications allow the exchange of information with lecturers.	2.6138
I intend to share knowledge with my classmates more frequently in the future	2.0436
I will provide my knowledge at the request of other students.	2.2687
I will try to share my knowledge with classmates.	2.5076
I enjoy helping classmates by sharing my knowledge.	2.3187

Notes: *Variance inflation factors (VIF)*

Table 7: Path Coefficients

Effect	β	M	SE	t-value	p-value	f^2	R^2

Direct Effects

UoSM -> SELP	0.4697	0.4711	0.0677	6.9407	0.0000	0.2025	0.7115
UoSM -> KSP	0.6449	0.6432	0.0352	18.3248	0.0000	1.2648	0.8033
KSP -> SELP	0.4070	0.4043	0.0710	5.7310	0.0000	0.1133	
WTSK -> SELP	0.0136	0.0125	0.0492	0.2775	0.7815	0.0002	
WTSK -> KSP	0.3942	0.3937	0.0446	8.8307	0.0000	0.3530	
Indirect Effects: Mediating							
UoSM -> KSP -> SELP	0.2625	0.2602	0.0490	5.3537	0.0000	0.2025	
Indirect Effects: Moderating							
Mod-WTSK*UoSM -> SELP	0.0182	0.0168	0.0304	0.5979	0.5500	0.0007	
Mod-WTSK*UoSM -> KSP	0.0857	0.0825	0.0287	2.9829	0.0029	0.0217	

Direct Effects

From the results table above, findings show that the use of social media among students in both TRNC universities sampled had a moderate, positive and significant effect on students' eLearning performance (β = 0.4697; p < 0.05). Similarly, their use of social media was also seen to strongly and positively impact their knowledge sharing practices (β = 0.6449; p < 0.05). Student's knowledge sharing practices were similarly found to moderately and positively impact their eLearning performance (β = 0.4070; p < 0.05). In addition, the predictor variables were all seen to explain about 71% of the variance in students' eLearning performance (R^2 = 0.7115) and over 80% of the variance observed in knowledge sharing practices (R^2 = 0.8033).

Indirect Effects: The mediating effect of knowledge sharing practices

As hypothesized, the mediating effect of knowledge sharing practices on the effect of use of social media on students' eLearning performance was found to be both positive and significant ($\beta = 0.2625$; $p < 0.05$). Since an effect already exists between use of social media and student's eLearning performance, it follows that the mediating effect observed in the finding is that of a partial mediation and not full mediation. Thus, knowledge sharing practices only partially explains how the effect of use of social media on students' eLearning performance occurs.

Indirect Effects: The moderating effect of willingness to share knowledge

To examine the hypothesized moderating effect of willingness to share knowledge on the use of social media and knowledge sharing as well as on the use of social media and students' eLearning performance path; an interaction variable was first created. This was done by running the structural model with the willingness to share knowledge variables first (please refer to model 2a) to examine its direct effect on knowledge sharing practices and students' eLearning performance. Next, standardized scores of the main predictor (independent) variable: use of social media and the moderator: knowledge sharing practices were obtained and multiplied with each other (UoSM x WTSK) to generate a new interaction variable which was then used to examine the moderation effect (please refer to model 2b). Results from the first phase of examining the moderation effect which involves the examination of the direct effects of willingness to share knowledge on knowledge sharing practices and students eLearning performance (please refer to the main results table above) showed that willingness to share knowledge had a moderately positive and significant effect on knowledge sharing practices ($\beta = 0.3942$; $p < 0.05$). However, its effect on students' eLearning performance was found to be non-significant ($\beta = 0.0136$; $p = 0.7815$). This direct effect finding further influenced the observed moderation effect of willingness to share knowledge as represented by the interaction variable (UoSM x WTSK). Again, from the results table it can be seen that willingness to share knowledge positively and significantly moderated the effect of use of social media on knowledge sharing practices ($\beta = 0.0857$; $p < 0.05$), even though the magnitude of the observed effect was small. However, similar to its direct effect on students' eLearning performance, willingness to share knowledge was not found to exhibit any significant moderating effect on the relationship that exists between social media usage and students' eLearning performance ($\beta =$

0.0182; p = 0.5500). Thus, in summary, willingness to share knowledge only moderates the effect of use of social media on knowledge sharing practices, by positively amplifying or strengthening the effect. However, it is observed to have no moderation effect on the relationship between the use of social media and students' eLearning performance.

Examining the magnitude of effect (Cohen's f^2)

Cohen's f^2 statistic is used to quantify the magnitude of effect (or effect size) for all observed paths. By convention, $f2$ effect sizes of 0.1, 0.25 and 0.4 are interpreted to be small, medium and large respectively. It is thus clear from the results table above, that the magnitude of effect for all of the hypothesized paths were small (between 0.1 and 0.20) with the exception of the effect of the use of social media on knowledge sharing practices (f^2 = 1.2648) which is considerably large.

Overview of support or lack thereof of the hypothesized paths.

Table 8: Support for the hypothesized paths

Hypotheses	β	p-value	Support
Direct Effects			
UoSM -> SELP	0.4697	0.0000	*Supported*
UoSM -> KSP	0.6449	0.0000	*Supported*
KSP -> SELP	0.4070	0.0000	*Supported*
Indirect Effects: Mediating			
UoSM -> KSP -> SELP	0.2625	0.0000	*Supported*

Indirect Effects: Moderating

Mod-WTSK*UoSM -> SELP	0.0182	0.5500	*Not Supported*
Mod-WTSK*UoSM -> KSP	0.0857	0.0029	*Supported*

From the table above it is observable that the study's findings found support for all of the stated hypotheses with the exception of hypothesis 5. in which it is observed that no significant moderation effect of willingness to share knowledge on the use of social media and students eLearning performance nexus was recorded.

Discussions

The novelty of the primary aim of this study with respect to its examination of the impact of social media usage on students' eLearning performance as opposed to student's general academic performance is unique not only in its approach, but also in its findings and in the propensity to discuss its findings vis-à-vis an extant body of research. In other words, since no tangible extant body of research exists on the social media-eLearning performance path, the comparative approach usually necessary for a discussion section will be difficult to implement since one may stand the risk of comparing apples with oranges. However, irrespective of the resulting temptation to discuss the findings by solely reiterating them, this study takes a two-pronged approach. First of all, it reiterates the findings and then comparatively discusses them vis-à-vis the teeming body of literature on the usage of social media general academic performance path.

Use of social media and students' eLearning Performance

This study found that student's social media usage positively affected their performance on eLearning platforms. While no extant research examining this path exists, contrasting the findings with previous studies which examined the impact social media has on the general academic performance of students, reveals that a majority of studies found that the usage of social media had a negative effect on student's

general learning performance (Kolhar, et al., 2021; Pa, et al., 2021). This thus implies that students may find eLearning based academic activities to be more engaging as compared to traditional academic activities since most electronic learning management systems (LMS) may provide the look and feel of social networking sites which students have become increasingly and positively more familiar with. Also, it may also be as a result of the highly interactive and collaborative nature of most courses delivered through eLearning platforms, that drive the engagement necessary to aid student's retention of knowledge and hence performance. However, an opposing argument exists on the reason for the difference in results. This argument regarding reasons for observing a positive effect of social media usage on students' eLearning performance especially during the current Covid-19 pandemic may not be unrelated to the allegation that the propensity for exam malpractices is much higher on eLearning platforms than through traditional testing mechanisms. While this allegation has significant merit, empirical evidence in support of it needs to be further explored.

Use of social media and knowledge sharing practices

With regard to the use of social media and knowledge sharing practices this study finds that a strong effect exists. This is in line with extant studies which found that social media usage affords students the opportunities to interact with their colleagues, teachers and mentors, build meaningful learning connections and collaborations as well as social ones and ultimately facilitate the sharing of knowledge across these online networking platforms (Cain, 2008; Wankel, 2009; Bogdanov et. al., 2012 and Ansari & Khan, 2020). As a result of these online connections and collaborations for knowledge sharing, individual students can easily get solutions to problems they might encounter in the eLearning systems, hence easing their learning process and improving performance. This can also take us back to the social constructivism theory which has to do with a system of learning that involves discussions and collaborations. Its importance to the teaching and learning process which involves students valuing, learning from every experience and being ready to share with other students, thereby continuously improving their cognitive ability. In the case of eLearning, this cognitive ability goes a long way to improve knowledge on how to make the most out of the eLearning system of education and get better

performance.

Knowledge sharing practices and students' eLearning performance

The study also finds that increased knowledge sharing practices leads to an increase in levels of student eLearning performance. This is intuitive because, as mentioned above, the increase in collaboration and interaction avenues provided via the usage of social media networks will facilitate an increase in the transfer of knowledge via knowledge sharing activities horizontally and vertically, and most importantly in diverse ways that provides the average learner with multiple knowledge delivery mechanisms (audio, visual and kinetic) invariably meeting the learning needs and styles of a more diverse array of learners than traditional methods can, which ultimately has a multifaceted and more comprehensive impact on students' overall performance via eLearning modes. This finding also finds support in extant literature which corroborate the fact that online knowledge sharing practices have a positive effect on student's overall academic performance (Cain, 2008; Wankel, 2009; Bogdanov et. al., 2012 and Ansari & Khan, 2020).

The mediating role of knowledge sharing practices

At a deeper level, this study sought to examine whether knowledge sharing practices explained how the use of social media affects student's eLearning performance, and if so, to what extent. Our findings show that for social media usage to possess a significant effect on students' eLearning performance, that knowledge sharing activities among these students must be present. In other words, knowledge sharing practices mediate the effect of social media usage on students' eLearning performance. With regard to the extent to which knowledge sharing practices (via interactions, collaborations with colleagues, teachers and mentors) mediates this relationship, it is important to know that this study's findings found a partial mediation effect which means that while knowledge sharing practices provide some explanation with regard to how the use of social media affects students' eLearning practices, it does not fully explain why and how this primary relationship occurs, which implies that there might be other variables or factors that can help in explaining why social media usage affects students' eLearning

performance. These findings and arguments are also corroborated by Ansari and Khan (2020).

The moderating effect of willingness to share knowledge

Since it is clear that increased levels of knowledge sharing practices facilitates the impact of social media usage on students' eLearning performance, it is logical to assume that willingness to share knowledge will impact the levels of knowledge sharing and thus influence its ability to mediate the social media usage-eLearning performance path. Upon empirically testing this assumption, the study finds that whereas willingness to share knowledge moderated the effect of social media usage on knowledge sharing practices (i.e., it increased the effect), it however, did not significantly moderate the effect of social media usage on students' eLearning performance. This implies that students' eLearning performance is not sensitive to whether students are willing to share knowledge or not, but is only sensitive to presence of knowledge sharing practices irrespective of how they are brought about. In other words, willingness to share knowledge, is only effective at increasing the levels of knowledge sharing practices when students use social media, but has no influence on whether those practices would eventually lead to increases or decreases in levels of student's eLearning performance.

Conclusions

Summary of Findings

The aim of this research was to examine how the use of social media for knowledge sharing impacts students' eLearning performance with evidence from two universities in North Cyprus (GAU and NEU). The study investigated the research questions with the use of quantitative data. The study's findings found support for all of the stated hypotheses with the exception of hypothesis 5 which observed that no significant moderation effect of willingness to share knowledge on the use of social media and students eLearning performance was recorded. The main findings of the study include;

The use of social media among students in both TRNC universities sampled had a moderate, positive and significant effect on students' eLearning performance. Their use of social media was also seen to strongly and positively impact their knowledge sharing practices. Student's knowledge sharing practices were similarly found

to moderately and positively impact their eLearning performance. The mediating effect of knowledge sharing practices on the effect of use of social media on students' eLearning performance was found to be both positive and significant. Since an effect already exists between use of social media and student's eLearning performance, it shows that the mediating effect observed in the finding is that of a partial mediation and not full mediation. Thus, knowledge sharing practices only partially explains how the effect of use of social media on students' eLearning performance occurs.

For the moderation of willingness to share knowledge, it had a moderately positive and significant effect on knowledge sharing practices. Therefore, willingness to share knowledge positively and significantly moderated the effect of use of social media on knowledge sharing practices, though the magnitude of the observed effect was small. However, similar to its direct effect on students' eLearning performance, willingness to share knowledge had no effect on students' eLearning performance. Willingness to share knowledge was not found to exhibit any significant moderating effect on the relationship between the use of social media and students' eLearning performance.

Implications of study

Implications for Research

While a review of the majority of extant literature reveals a negative effect of the usage of social media on the academic performance of students, this study finds that a moderately positive effect exists between the usage of social media and students' eLearning performance. The difference between this study's findings and those of extant research is the fact that unlike previous research, this study focused on student's eLearning performance rather than on student's general academic performance. Our findings point to the fact that the collaborative and interactive nature of social media usage and the similarities students encounter while studying via eLearning platforms increase levels of engagement and knowledge sharing which then produces positive learning outcomes for the students. Similarly, the study found that knowledge sharing practices are a vital ingredient for the facilitation of the desirable eLearning outcome. However, while the willingness to share information was found to be crucial in raising the levels of knowledge sharing practices when social media is in use, it had no influence on how social media usage affects the eventual eLearning performance of students.

These findings provide an important contribution to extant literature by introducing eLearning performance as a possible learning outcome measurement metric – one that is apt for the current pandemic times where most institutions of higher learning have had to shift to online learning platforms. Secondly, since it is still yet to be determined if the positive effect of social media usage is as a result of the hypothesized effects or as some may argue, the lax nature of online testing systems, this study stirs up further questions that may need to be explored in future research on the practicalities and antecedents of eLearning performance.

Implications for Practice

The findings of this study have significant implications for practice. First of all, it shows social media usage has a positive effect on students' eLearning performance. Thus, it follows that education administrators should be encouraged to incorporate activities which facilitate the productive use of social media by students, through the design of programs that facilitate student-student, student-teacher and student-mentor interactions and collaborations. It is however not sufficient to increase the levels of student's use of social media. It is important during the curriculum design process, to ensure that those activities that would effectively prompt students to share information and knowledge across board be encouraged, as increased levels of knowledge sharing were shown to not only have a significant effect on eLearning performance outcomes, but also facilitate the effect of social media usage on eLearning performance itself. Finally, education administrators should incorporate orientation programs and workshops geared towards the intimation of students on the importance of being willing to share information with peers, not just for the sole purpose of increasing the levels of knowledge shared, but also for the beneficial effect it has for student themselves: evidence exists to show that the more students share knowledge, the more they benefit from the shared knowledge network themselves but most importantly the more they participate in giving and taking knowledge, the more their overall performance via eLearning mechanisms improve positively.

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The Impact of Service Quality on Customer Satisfaction: The Case of *Cameroon's Transport Sector.*

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Abstract

One of the most crucial factors for the success of any business is customer satisfaction. In the public transportation sector, where retaining customers depends mainly on the quality of service offered to them, this is even more pronounced. In this study, we investigated how service quality impacts customer satisfaction in Cameroon's passenger transport industry, focusing on NSO BOYZ EXPRESS. To assess these dimensions, we adopt a quantitative approach using a model developed from SERVQUAL. The surveys were conducted among 150 passengers of NSO BOYZ EXPRESS, and Excel 2016 and SPSS Version 21 were used for data analysis. According to the research, customer satisfaction in the passenger transportation industry is significantly enhanced by service responsiveness, including empathy, reliability as well as tangibles. In order to guarantee customer satisfaction and loyalty, considerable modification of public transportation systems in concurrence to these elements is vital

Keywords: Service quality, customer satisfaction, transportation, Cameroon

Introduction

Across the past few decades, there has been a notable global advancement for transportation experts, especially those operating under the public sector. Commuter mobility needs in urbanized as well as cosmopolitan environments are increasing due to the desire to engage in increasingly diversified endeavors driven by economic considerations Andaleeb & et al., (2007). Its many benefits, such as enhanced economic revenue opportunities, reduced carbon dioxide emissions, and minimized traffic jams, may be the reason for the notable increase in the usage of public transportation Deakin, (2001). The population's quality of life is being improved in Cameroon as public transportation becomes a more significant factor and a solution to the country's economic issues. Its unique position in meeting

consumer needs along with business and sustainable development in cities accounts for the sector's increasing influence. boom periods for instance, can also bring up issues of inadequacy as well as inefficiency, which lead to poor productivity and an urge for high-quality services thus, lawmakers as well as operational executives in the broader transportation industry ought to get possession of information regarding consumer contentment (satisfaction) as well as service quality, in order to assure or actualize desired results in maintaining as well as recruiting new consumers. (Amponsah & Adams, 2016).

SERVQUAL scale is superior in determining the degree of clients' contentment with the service. Not only does it work better at accurately identifying the perception of customers, but it also makes measuring elements easier and lower (Adil et al., 2013). This piece addresses the subject of implementation in relation to the service quality concept. Although SERVPERF may as well be considered, it is still uncertain whether of the two scales is a better measure of service quality. Jain & Gupta (2004), proposed that client contentment can be related to key elements like driver's conduct, safety, including comfort, reliability as well as consistency since prior studies have only evaluated the psychometric as well as methodical issues' soundness of service quality measurements. The result of Pearson's correlation study shows that comfort demonstrates a significant influence on client's satisfaction. When measuring their levels of satisfaction, commuters take into account a number of factors; the availability of buses at stations, when they arrive at place of interest as well as safety features such as seat belts, cautious drivers with excellent route knowledge (Horsu & Yeboah, 2015)

Cameroon's passenger transport industry is facing a major transformation, largely influenced by market supply and demand dynamics. Consumer preference for economically sound options emphasizes the importance for transportation managers to meet or exceed customer expectations in order to retain customers (Zeithaml, 1990). Nso Boyz Express is one of many service providers in Cameroon, operating in; Bamenda, Douala, Yaoundé and Bafoussam. However, operators such as AMOUR MEZAM, MUSANGO and GUARANTEE EXPRESS still suffer from widespread problems of severe delays, overcrowding and poor service which are service upheavals according to

Andaleeb et al., (2007). Research shows that customer dissatisfaction stems from neglect of service dimensions such as reliability and empathy Islam et al, (2014). Although competition is said to increase efficiency, customer complaints about service quality remain widespread Zeithaml et al., 1996. Improving service quality by addressing these neglected aspects could increase customer satisfaction and loyalty in Cameroon's passenger transport sector; Vicente et al, 2020) , Islam et al, (2014), Eboli & Mazulla (2007), Friman (1998), Eboli & Mazulla (2007), Abdulrazzaq et al, (2020), Nkyami (2016), Islam et al, (2014) and (Gobena, 2019) had in other economies with distinct economic features to that of Cameroon, investigated service quality influence on customers satisfaction. We therefore sought to contribute in this light, by investigating the influence regarding service quality on customer's satisfaction in the context of Cameroon.

Literature review

GAP appraisal endeavor was another endeavor that commenced with the goal of guaranteeing satisfaction for clients initiated by Parasuraman, Zeithaml and Berry its primary proponents, as outlined in (Parasuraman et al., 1988). It identified on the service providers side four Gaps that could modify the way in which clients see the standards of service rendered.

GAP1 represents customers' expectations and reflects managerial perceptions of inadequacies. Incorrect ideas about customers' wants may arise due to the absence of key components such as suitable market focus. Merely having a marketing function does not guarantee market focus; proper operational procedures, marketing data instruments, and mindset are crucial. GAP2 concerns service quality specification, where management may struggle to translate client expectations into service quality requirements. Requirements analysis and service design are pertinent to addressing this gap. GAP3 pertains to service delivery, where setting parameters does not guarantee excellent performance due to various factors such as process issues and inadequate frontline worker support. GAP4 involves external communication, where a company's external relations shape future demand based on client expectations. Service providers must accurately describe services in marketing materials Zeithaml &

Parasuraman, (2004). Gap 5 arises from disparities between customer aspirations and perceptions of provided service quality. It serves as a measure of service quality, influenced by marketing, service design, and delivery. Customers evaluate service based on dimensions like competence, responsiveness, access, courtesy, credibility, security, communication, as well as understanding, according to Kulašin & Fortuny-Santos (2005), although Parasuraman et al.'s study in 1988 condensed these dimensions to five.

In terms of evaluating service quality; (SERVQUAL) provides reliable elements to facilitate it. The three primary pioneers of this idea Parasuraman, Berry and Zeithaml went on to further develop, codify as well as innovate this tool through a number of significant works, most notably Parasuraman 1985, 1988 as well as 1993. These innovations have been widely cited in promotional, as well as studies in the marketing domain (Nyandoro, 2015)

SERVQUAL is a useful method for evaluating a service institution's quality in terms of both its strengths and flaws, according to Parasuraman et al. (1988). The main components of service quality that constitute the subject of this study include: assurance, empathy, responsiveness, reliability and tangibleness of the service. According to (Njau, 2020: Nyandoro, 2015), reliability has been established to be critical in a number of situations in addition to being critical for client satisfaction. According to Saghier & Nathan (2013), assurance helps employees feel confident and dependable.

Tangibility and visibility are critical at the service delivery point, as the physical components should meet user needs. Saghier & Nathan (2013) highlighted the importance of attractive visible facilities. Likewise, empathy, as suggested by Parasuraman et al. (1988) is essential to fully consider customer concerns. Additionally, responsiveness includes the willingness to assist customers in a timely manner, which is critical to ensuring satisfaction. However, El Saghier & Nathan (2013) criticized SERVQUAL on the grounds that it only focuses on processes related to service delivery and ignores important aspects such as the consequences of service encounter. Similarly, there are some flaws in the abstraction of the dimensions mentioned and used, which may limit their general applicability and contextualization. Despite these shortcomings, the theory remains crucial to the current study

Responsiveness; A staff member's enthusiasm or willingness to perform a service is referred to as responsiveness, as described by Parasuraman et al., (1985) it is centered on giving prompt, thoughtful responses to customer's requests, questions, as well as grievances. Informing customers of the time it might require to address their concerns as well as resolve issues, is a sign of a responsive transportation provider. Responsiveness in the present study also relates to how ready transportation vendors are to perform services on schedule. Five elements of SERVQUAL were measured in a study conducted by Yazid et al., (2020) to ascertain how Kuala Lumpur residents felt about the quality of public transport services in the said area. The results identified that; aside from Tangibility and Reliability, the other three criteria do not support consumer satisfaction thus, the current study hypothesized that;

H1; Responsiveness positively and significantly influence customer satisfaction

Reliability; is a critical component of high-quality services, as characterized by SERVQUAL. it involves the ability to deliver specified service consistently, in respect to (Zeithamal et al., 1996). Maintaining the company's integrity as well as offering services as intended is key components of reliability, it encompasses the ability to consistently deliver the promised service without errors. Parasuraman et al., 1988 emphasizes the importance of maintaining consistency and reliability to meet consumer expectations; this involves minimizing faults and delays, adhering to schedules, and providing accurate information. Service providers generate profits by offering appealing services, while customers expect dependable service in return; they want assurance that they can access the service whenever needed and that each transaction meets their expectations, the components firms consider to have the major influence on consumers' satisfaction when it concerns service quality include; safety comfort as well as reliability Zeithamal et al: Fonseca et al.' (2010). Various categories of services could have unique quality standards with varying priorities. Considering that each service dimension has a distinct technique which assists executives in understanding each dimension's significance as well as impact on customer satisfaction, classification of these dimensions is vital hence we hypothesized that;

H2; reliability positively and significantly affect customer satisfaction on Cameroon

Empathy; According Zeithaml et al., (2006), demonstrating empathy to clients entails that staff members devote full attention to each client. In this approach, the customer feels special as well as respected. When it comes to meeting the demands of clients, executives of the firm ought to try to find out who they are, what their preferences are, as well as what they desire. Due to their potential to offer individualized services to customers, small firms are more empathetic than large corporations. There is disagreement about which parameters best represent service quality in the link amid it and customer satisfaction. A study by Sanita & Mutuku (2019), sought to pinpoint factors that consistently affect service quality; their research focused on the dimensions impacting service quality in Kenya. Based on their findings, they concluded that service reliability, assurance, and empathy, along with tangibility and responsiveness, significantly affect customer satisfaction. To this effect we hypothesized that;

H3; Empathy positively and significantly influence customer satisfaction on Cameroon

Service Assurance; the term "service assurance" describes an employee's professionalism, demeanor, as well as ability to instill trust in client's mind. It also encompasses trustworthiness along with competence, civility, as well as security. People who serve as intermediaries between a company and its clients may be viewed as trustworthy individuals (Zeithaml et al., 2006). According to Rachman (2017), superior quality is paramount for securing client loyalty, defending against competitors, and ensuring sustained growth and profitability for businesses. Assurance, as outlined in SERVQUAL, plays a crucial role in this process by assessing how effectively service providers establish trust with their clients. This trust is vital for retaining clients and outperforming competitors. SERVQUAL emphasizes aspects such as staff knowledge, demeanor, and ability to instill confidence in customers, particularly in terms of trust. Employee assurance involves their ability to uphold the promises made to customers (Rachman, 2017). Furthermore, according to Putri et al., (2022) assurance has a partially positive effect on consumer satisfaction. This result facilitates the notion that customer satisfaction is influenced by service assurance thus, stimulating the current proposition:

H4; Assurance positively and significantly influence customer satisfaction on Cameroon

Tangibility: Service tangibles, as defined by Parasuraman (1985), are the tangible indicators and evidence that clients utilize to assess and understand intangible services provided to them. According to the SERVQUAL model, tangibles encompass the outward appearance of facilities, equipment, staff, and marketing materials associated with the service. These are elements of a service that are perceived or experienced but not directly purchased. Businesses leverage tangibles, or the visible aspects of their services, to enhance external consumer satisfaction (Panda & Das, 2014). Considering that services are immaterial and that clients often face difficulties in appraising service quality before, during, or after consumption, tangibility becomes crucial. The European school of thought emphasizes that consumers evaluate service quality from both functional and technical perspectives. However, it tends to overlook the significance of the physical setting where the service is provided or traded. The American paradigm fills the gap by defining service quality as that discrepancy amid customers' perceived expectations and what they actually receive (Parasuraman, 1988). Intangibles significantly influence clients' gratification and thus, businesses utilize them in delivering quality service according to (Zeithamal et al., 2006). In this regard, the current study stated that;

H5; Tangibility positively and significantly influence customer satisfaction on Cameroon
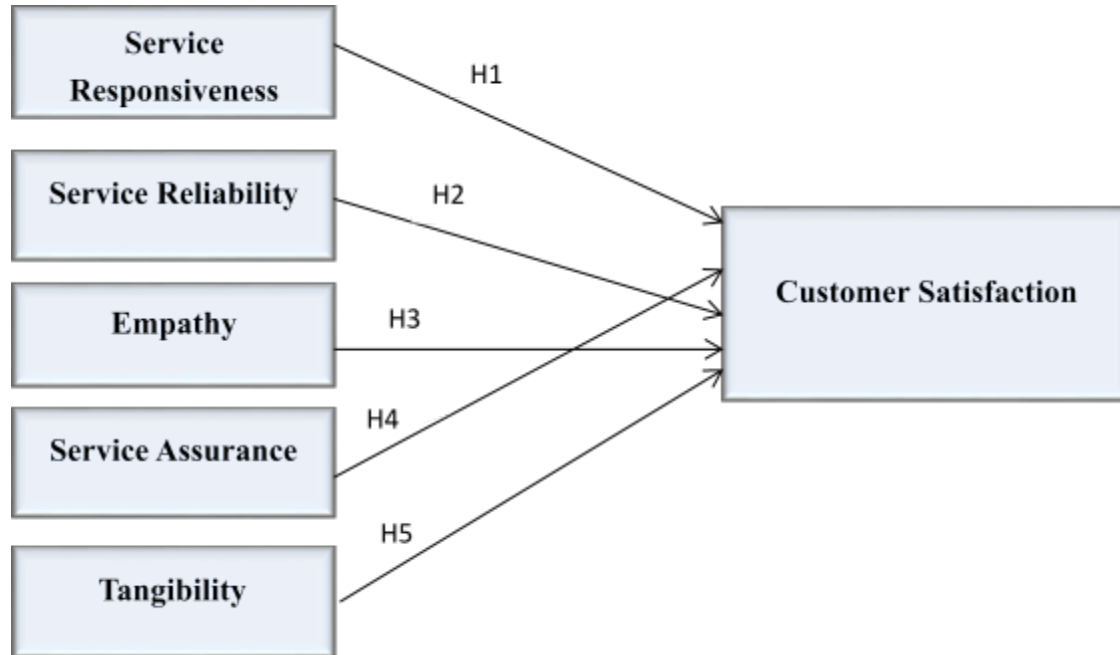
Figure: Summarizes the hypothesis announced above

Methodology

Both descriptive and causal research methods were used to study the context in which this study was conducted, in order to grasp its current development. Data collection based on predicting outcomes related to research questions was presented in accordance to Vogt et al, (2012). Analytical studies are crucial when investigating individual perceptions, emotions, and behaviors regarding the organization according to Mohajan (2020). This survey sought to determine the correlation between customer satisfaction and service quality in Cameroon's transportation sector. A descriptive approach was employed to describe the current state of the research area, which in this case was the enter-regional bus service provider Nso Boyz Express in Cameroon. Convenience sampling, a non-probability approach, was utilized. A sample of fifteen hundred participants (150) constituting Nso Boyz Express commuters was established for the study

Multiple Correspondence analyses were utilized to calculate indexes. Similarly, regression analysis was employed in explaining the relationship amid service responsiveness, reliability, empathy, tangibility, as well as service assurance.

Similarly, Five point Likert scale was utilized in measuring the study's constructs, the scale ranged from strong agreement to strong disagreement. The measurement framework aimed at assessing the effect of service quality on customer satisfaction was adopted from SERVQUAL a scale established by Parasuraman et al., (1988), its dimensions includes service responsiveness, reliability, empathy, tangibility, as well as assurance; Minor modifications were applied in assessing each of these dimensions. Indicators were used; service assurance had six indicators while service tangibility used seven indicators, service responsiveness, reliability, and service empathy had five indicators each. Six satisfaction indexes derived from Wu, et al, (2011) served as a measure to evaluate customer satisfaction. Questionnaires were then utilized to collect data from respondents while statistical packages for social Sciences were employed in analyzing the data.

Results & Findings

The findings were examined and presented in accordance with the study's specified objectives as well as hypothesis, utilizing descriptive statistics to show how variables correlates. in the same light; pie charts, bar charts as well as frequency tables were employed to represent viewpoints of respondents. In total one hundred and fifty (150) questionnaires were distributed. With one being eliminated and 143 appropriate for data analysis, response rate was 95.3%.The findings revealed that out of 143 participants, 120 (84.0%) were male and 23 (16.0%) were female. These results indicate an uneven distribution of data concerning gender.

Table 1. Reliability test

Dimension	Number of items	Cronbach Alpha coefficient	Acceptability
Responsiveness	5	0.721	0.721> 0.7, acceptable.
Reliability	5	0.756	0.756> 0.7, acceptable.
Empathy	5	0.799	0.799> 0.7, acceptable
Assurance	6	0.821	0.821> 0.7, acceptable
Tangibility	7	0.843	0.843> 0.7, acceptable

Cronbach's alpha coefficients for service responsiveness, reliability, empathy, assurance, and tangibility were found to be 0.721, 0.756, 0.799, 0.821 and 0.843, respectively as indicated in table 1 above. According to these findings, every variable had a Cronbach value exceeding

0.7 threshold demonstrating the suitability and reliability of the research tools that were employed. The claim made by Cronbach (1951) that study validity requires a Cronbach's alpha coefficient of not less than 0.7 lends credence to this. Furthermore, a Cronbach's alpha coefficient of 0.914 was obtained for the dependent variable "Customer Satisfaction," which was examined using six items

Table 2. Construction of indexes; Multiple correspondence analysis

Imention	Principal	Percent	Cumul percent
Tangibility index (number of axes = 2)			
Dim1	0.0341822	65.05	65.05
Dim2	0.0073184	13.93	78.98
Dim3	0.0001841	0.35	79.33
Total	0.052549	100.00	
Reliability index (number of axes =2)			
Dim1	0.0208161	82.02	82.02
Dim2	0.0070764	17.08	100.0
Total	0.0414222	100.00	
Empathy index (number of axes =2)			
Dim1	0.0344637	68.118	68.18
Dim2	0.00434	32.82	100.0
Total	0.0440819	100.00	

Assurance index (number of axes =2)

Dim1	0.075045	80.02	80.02
Dim2	0.0023854	19.98	100.00
Total	0.0937773	100.00	

Responsiveness index (number of axes =2)

Dim1	0.0528004	64.21	64.21
Dim2	0.0396523	45.79	100.00
Total	0.0924527	100.00	

Customer satisfaction index (number of axes =2)

Indexes are represented in table 2 above. Based on the established indexes, the Multiple Correspondence Analysis (MCA) results show two axes. There are three dimensions that add up to the total primary inertia of 0.052549. The primary inertia of the first dimension, which makes up 65.05% of the service tangibility index, is 0.0341822. In a similar vein, the second dimension maintains a primary inertia of 0.0073184 by contributing 13.93% to the index. Furthermore, the third dimension maintains a major inertia of 0.0001841, adding 0.35% to the service tangibility index. These three dimensions are hence the basis for the service tangibility index.

Two distinct sets of dimensions are used in predicting reliability index; the initial dimension contributed 82.02% with a principal inertia of 0.0208161. In the same light, dimension 2 contributed 17.08% to the index with its principal inertia 0.0070764.

Similarly, there are two dimensions that make up Assurance index; the initial dimension has a main inertia of 0.075045 contributing 80.48% to the index, while the principal inertia of dimension two, which makes up 19.45% of the index, is 0.0023854

Two distinct sets of dimensions are used in predicting Responsiveness index; the initial dimension contributed 64.21% with a principal inertia of 0.0528004. In the same light, dimension 2 contributed 45.79% to the index with its principal inertia 0.0396523.

Moreover, The Index of Customer Satisfaction is forecasted using three aspects independently the initial dimension has a main inertia of 0.121117 contributing 58.74% to the index, while the principal inertia of dimension two, which makes up 40.41% of the index, is 0.083348. The third dimension accounted for 1.00% of the score with a principal inertia of 0.001721

Table 3. Descriptive statistic summary

Variables	ObsMean	Std. Dev	Min	Max
Tangibility index	1432.313333	1.775030	1.450709	2.213386
Assurance index	1432.286667	1.045006	-1.40249	2.20585
Empathy index	1432.100000	1.014006	-1.78403	2.057344
Reliability index	1432.066667	1.006006	-1.41161	1.536068
Responsiveness index	1431.940000	0.812899	0.812899	2.313333
Customer satisfaction index	1432.486667	0.836553	0.320000	2.328000

The result of the tangibility index specifies a mean of 2.31333 and a standard deviation of 1.775030 showing a considerable degree of variability as shown in table 3. Assurance index value ranges from 1.0450709 to 2.213386. Similarly, the assurance index also revealed a standard deviation of 1.045006 including a minimum value of -1.402495 as well as a maximum value of 2.20585. Empathy index specifies a mean value of -1.78403 as well as a standard deviation of 1.006006. Empathy index revealed a range of -1.784032 to 2.057344. In the same light, Responsiveness index specifies a mean of 1.940000 and a standard deviation of 0.812899, this index has a range of 0.812899 to 2.057344. In conclusion, customer satisfaction index revealed a mean of 2.486667 alongside a standard deviation of 0.836553 and a range of 0.320000 to 2.328000

In order to determine if there exist any strongly correlated independent variables that would indicate multicollinearity in the model; we first performed a correlation analysis prior to estimating the model parameters. Table 4 below displays the pairwise correlation for each variable.

Table 4. The pairwise correlation matrix

	Responsiveness	Assurance	Empathy	Tangibility	Reliability
Responsiveness	1.0000				
Assurance	0.7104 ***	1.0000			
Empathy	0.6859***	0.5366***	1.0000		
Tangibility	0.8101***	0.5384***	0.7714***	1.000	
Reliability	0.7145***	0.6417***	0.6603***	0.660**	1.000

Based on the correlation coefficients of the independent variables (service reliability, assurance, empathy, responsiveness, and tangibility) in Table 4, it can be inferred that these variables have strong associations. Thus, to guarantee the accuracy of the model, a rigorous test of multicollinearity was necessary. The multicollinearity test results for Variance Inflation Factors (VIF) are shown in Table 5 below.

Table 5. VIF Multi-collinearity results

Variables	VIF1/VIF
Responsiveness	2.530.395779
Assurance	2.200.454517
Empathy	1.620.618353
Tangibility	1.590.630902
Reliability	2.110.473933
Mean VIF	**2.51**

Considering the mean VIF is less than 2.5, the VIF test results indicate that the model's multi- colinearity is not a problem, and every single individual VIF coefficient exceeded the critical value 10, as described by Gujarati 2004: Tay (2017). Thus it is conceivable to utilize the ordinary least squares estimate

Tables 5, 6 and 7 display the findings of the ordinary least squares (OLS) analysis of the relationship amid service quality and customer satisfaction

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Table 6. Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.611ᵃ	.373	.354	.573

a. Predictors- constant; Responsiveness, Reliability, Assurance, Tangibility and Empathy

Model one specifies an adjusted R square of 35%, R square 37 as well as R figure of 61%. Thus variation in

Responsiveness, Reliability, Assurance, Tangibility and Empathy jointly explicate 35% in regards to customer satisfaction.

Table 7. ANOVA

Model	Sum of squares	Df	Mean Square	F	Sig.
1 Regression	26.3544		24.758	20.080	.000[b]
Residual	44.296135		.127		
Total	70.650139				

a. Dependent variable; Customer satisfaction

b. Predictors- constant; Responsiveness, Reliability, Assurance, Tangibility and Empathy

Table 8.: Coefficients

		Coefficients[a]				
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.760	.166		4.591	.000
	Service Responsiveness	.184	.064	.241	2.890	.004
	Service Reliability	.258	.382	.368	2.707	.004
	Service Assurance	.128	.082	.429	4.822	.000
	Service Tangibility	.128	.078	.144	1.644	.002
	Service Empathy	.412	.079	.475	5.254	.000

a. Dependent Variable: Customer Satisfaction

The Fisher statistic likelihood (prob>F=0.0000 was less than 1% signifying a global significance of the model at the 1% level as indicated in table 8 above. It indicates that customer satisfaction is thereby influenced by the studied dimensions. The results revealed a positive 0.241 coefficient index as well as probability value of 0.004 for responsiveness, indicating that an increase in service responsiveness positively impacts consumer's contentment or satisfaction. Thus, holding other influences constant, a unit increase in responsiveness index would lead to a 0.241-point increase in the customer satisfaction index.

Similarly, the results specified a positive 0.368 coefficient index and probability value of

0.004 for Reliability, indicating that an increase in Reliability would positively impacts consumer's satisfaction; thus, holding other influences constant, a unit increase in Reliability index would lead to a 0.368 unit increase in the customer satisfaction index explicitly supported (Prob 0.004<1%)

In the same light, assurance and customer satisfaction exhibit a positive correlation, as indicated by the positive coefficient associated with service assurance (0.429) as well as its probability value (0.000). Holding other elements constant, a one unit increase in assurance index, would correspond to 0.429 unit increase in the customer satisfaction index; statistical prove since (Prob 0.000<1%)

Moreover, the results specified a positive 0.144 coefficient index and probability value of

0.002 for Tangibility, indicating that an increase in Tangibility would positively impact customer's satisfaction; thus, holding other influences constant, a unit increase in Tangibility index would lead to a 0.144 unit increase in the customer satisfaction index explicitly supported (Prob 0.002<1%). Thus Tangibility significantly influences customer satisfaction. To end with, Empathy and customer satisfaction exhibit a positive correlation, as indicated by the positive coefficient associated with Empathy (0.475) as well as its probability value (0.000). Holding other elements constant, a one unit increase in Empathy index, would correspond to 0.475 unit increase in the customer satisfaction index; statistical proof since (Prob 0.000<1%). Thus Empathy positively and significantly influences consumers' satisfaction

Discussion of Findings

H1; Responsiveness positively and significantly influence customer satisfaction

The preceding OLS estimate result shows a positive as well as significant influence of Responsiveness in regards to customers' satisfaction; this substantiates hypothesis one which identifies commuters' satisfaction with Nso Boyz bus service as being influenced by responsiveness. The correlation is in line with earlier findings in research by Vicente et al, (2020) and Islam et al, (2014), which revealed that empathy has a substantial or significant impact in regards to customer satisfaction in the passenger transportation industry. These findings emphasize that reliability as well as responsiveness are important components of excellent customer service.

H2; reliability positively and significantly affect customer satisfaction on Cameroon

191

The OLS estimates above show that reliability has a significant influence on commuter's satisfaction in support of hypothesis two which suggested that commuters' satisfaction with Nso Boyz bus service is affected by Reliability. The correlation is in line with earlier findings in research by Abdulrazzaq et al, (2020), Friman, (1998) as well as Eboli & Mazulla (2007), which highlighted Reliability as a significant component in regards to customers satisfaction in the passenger transportation industry.

H3; Empathy positively and significantly influence customer satisfaction on Cameroon

Additionally, the outcome of the aforementioned OLS approximation specify that Empathy and commuters satisfaction positively correlate; this is in line with the third hypothesis which posits that commuters' satisfaction with Nso Boyz bus service is influenced by Empathy. This correlation is consistent with earlier research by Friman (1998), Mudenda, (2017) as well as Zein, (2019) whose findings emphasized a strong correlation between Empathy and excellent customer service and satisfaction within the area transportation sector. They singled out empathy as the most vital service quality element which stimulate consumers

H4; Assurance positively and significantly influence customer satisfaction on Cameroon

Furthermore, The OLS estimates above shows that Assurance has a significant influence on commuter's satisfaction in support of hypothesis four which suggested that commuters' satisfaction with Nso Boyz bus service is affected by Assurance; this correlation is consistent with earlier research by Nkyami, (2016) as well as, Mudenda (2017) whose correlation findings revealed that all SERVQUAL dimensions had a positive relation to customers' satisfaction but only assurance and responsiveness had a significant effect on customers satisfaction based on regression analysis.

H5; Tangibility positively and significantly influence customer satisfaction on Cameroon

As a result of the previously given OLS estimation, it can be concluded that service tangibility significantly and directly affects customer satisfaction or gratification. This result provides credence to the fifth hypothesis. This correlation reflects a strong predisposition towards improving customer happiness through tangible service aspects, which is in line with Islam et al, (2014) as well as (Gobena, 2019) who also indicated a substantial influence of service tangibility on customer satisfaction.

The outcome or findings of this study revealed that the five studied variables; responsiveness, reliability,

empathy, service assurance as well as tangibility, significantly influence customer's satisfaction. These results are in concordance with the findings of Vicente et al, 2020) and Islam et al, (2014) whose findings revealed a significant effect of empathy on customer's gratification. Similarly, the association is consistent with the previous results in studies by Eboli & Mazulla (2007), Friman (1998), Eboli & Mazulla (2007), and Abdulrazzaq et al, (2020), Whose finding revealed a significant effect regarding service empathy as precursor in regards to client contentment. In the same light, the association is also consistent with the previous results in studies by Nkyami (2016), whose correlation findings revealed that all SERVQUAL dimensions positively influences customers' satisfaction as well as Islam et al, (2014) and (Gobena, 2019) whose findings also indicated a substantial influence of service tangibility on client gratification; this therefore streamlines SERVQUAL as a credible measure of service quality from customer's satisfaction stand point.

Conclusion

Primarily concentrating on Cameroon's passenger sector, our foremost objective was to investigate the relationship between service quality and customer satisfaction. We created a conceptual framework and five specific objectives to achieve this, based on the scale developed by Parasuraman et al., 1988 (SERVQUAL). With the use of a causal research design and descriptive statistics, our study attempted to adequately illustrate the relationship between customer satisfaction and level of service quality.

In summary, this study examined the critical link that exists between consumer satisfaction and service quality in Cameroon's passenger transport industry, with a particular focus on NSO BOYZ EXPRESS. Adopting a quantitative approach, the study determined that customer satisfaction is positively and significantly influenced by service reliability, responsiveness, empathy, assurance, and tangibles. The results emphasize how crucial it is for transportation service providers to keep enhancing transportation services in order to foster customer gratification, retention and loyalty. These findings not only emphasize how crucial several service dimensions are; but also offer operational managers and policymakers practical advice on how to improve service quality and effectively satisfy customers.

Limitations

This investigation has its own limitations, just like other earlier studies conducted in respectable domains of life. This work is primarily inadequate because it only addresses service quality and customer satisfaction

within the context of Cameroon's passenger transport sector. As a result, its findings may not apply to other economies with distinct working environments from Cameroon's. Other sectors including financial institutions, educational sector, and the products sector were ignored, our study focused only on the passenger transportation sector.

Similarly, the SERVQUAL 5 elements of responsiveness, reliability, empathy assurance, as well as tangibility were the exclusive focus of the study.

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