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**DOCTOR OF BUSINESS ADMINISTRATION**

**DOCTORATE PROGRAMME**

**THE MEDIATING ROLE OF STUDENT SATISFACTION IN THE  
INFLUENCE OF PERCEIVED E-SERVICE QUALITY AND  
TECHNOLOGY ACCEPTANCE FACTORS ON STUDENTS' RETENTION  
IN PRIVATE BUSINESS COLLEGES AND UNIVERSITIES**

**Doctoral Research Proposal**



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## Contents

1. Introduction .....	4
2. Rationale of the Study .....	6
3. Research Questions.....	8
4. Objectives of the Study.....	8
5. Method of Study .....	9
5.1 Research Design.....	9
5.2 Population and Sampling .....	9
5.3 Data Collection.....	10
6. Limitations of Study .....	11
7. Literature Review .....	12
7.1. Introduction.....	12
7.2. Concept of E-Learning.....	12
7.3. Services Quality .....	13
7.3.1 Measurement of Services Quality .....	14
7.3.2 Service Performance Measure .....	15
7.3.3. Dimensions of Services Quality .....	16
7.4. E-Learning Services Quality .....	18
7.4.1 Dimensions of E-Services Quality .....	19
7.5. Technology Acceptance Model. ....	22
7.5.1 Perceived Usefulness.....	23
7.5.2 Perceived Ease of Use .....	23
7.6. Student Satisfaction.....	24
7.6 .1 The relationship between Perceived Service Quality and e-satisfaction.....	25
7.6.2 The relationship between TAM factors and e-satisfaction.....	27
7.7 E-satisfaction – e-retention relationship.....	28
7.7.1 Behavior Intention .....	29
7.7.2The relationship between TAM factors and e-retention.....	29
7.7.3 The relationship between the perceived services quality and students’ retention.....	30
8. Previous Studies .....	31
9. Conceptual Framework of the Study .....	32
10. Organization of the Study .....	33
11. References.....	34

## ABSTRACT

Student retention is a aggressive device for Private Business Colleges and Universities. The increase and survival of agencies rely on how dependable and retention their college students are, and the schools and universities isn't any exception. Student retention has performed an essential function in accomplishing aggressive advantages. Student retention can boom their income, lessen charges and result in destiny revenue. The main drivers of pupil retention are provider pleasant, TAM elements and pupil delight. Therefore, this take a look at explores the connection amongst provider pleasant, TAM elements, pupil delight and pupil retention and determines the mediating impact of pupil delight on courting among provider pleasant, TAM elements and pupil retention in E-getting to know in Myanmar Private Business Colleges and Universities. The SERVQUAL version and TAM version are an essential tool used to measuring provider pleasant and recognition and delight approximately the E-getting to know in Myanmar Private Business Colleges and Universities. The take a look at covered each number one and secondary data. Convenience sampling technique and a quantitative studies method have been used to acquire facts from 610 respondents. Firstly, provider pleasant and TAM elements have a high quality courting with pupil retention. Secondly, pupil delight has a high quality courting with pupil retention. Finally, pupil delight partly mediate the connection among provider pleasant, TAM elements and pupil retention. Plausible motives for the effects are mentioned in the context of the take a look at. Both realistic and theoretical contributions, in addition to guidelines for destiny studies made.

## Keywords

Student retention, SERVQUAL, TAM, service quality, education, satisfaction

## 1. Introduction

The history of online education dates back to the 1970s with computer assisted learning, followed by computer-based training and multimedia during the 1980s, web-based education during the early 1990s and e-learning during last two decades, across higher education institutions worldwide. With the advent of mobile learning and social networking, from in 2005 to date, the dynamics of online learning have changed dramatically with a diverse range of pedagogical practices. In this era of digitalization, online learning has expanded educational opportunities to the masses through blended, hybrid, or completely online delivery mode. (Roy R. and AI-Absy, M.S.M, 2022)

In 2011, the interested students learned the content as an online course and they could not be scored from this learning in Myanmar. However, most of the students are not interested to attend the online course. To avoid that kind of condition, the university introduced the blended learning in 2015 and the students can be scored from this learning by adding to the final result. (Naw. N, 2020). The effect of COVID-19 as a global crisis, impacting millions of children and educators globally, and various technological applications have been deployed in the epidemic age to facilitate learning (Nainggolan, 2021; Shahzad et al., 2021) Within contextual differences, higher education institutions largely responded promptly to shift from face-to-face to online learning, however universities need to rediscover the learning environment such that digitalization complements social relation, along with expanding the scope of modular learning.

More than a year has passed in Myanmar since the Covid-19 pandemic, but there is no sign that the pandemic will end. Therefore, a pandemic has a destructive impact on education both Private and public Universities in Myanmar, resulting in the teaching and learning process being carried out using the distance learning method, commonly referred to as learning from home (LFH). According to e-learning market trends 2017, the total market in Asia is US\$7.1 billion, with an annual growth rate of 17.3%. Asia presents the most exciting trends in literacy development, the demand for content, adoption of technology, highest growth rate, integration with talent management, and vital government initiatives.

Online learning requires breakthroughs in innovation and strategy at all levels. Thus, education should focus more on new trends in executive leadership (Flanagan & Jacobsen, 2003). The quality of universities or educational institutions can be seen from the services provided to customers. In improving the quality of educational institutions, efforts need to be made. Providing a learning

information system is an effort to improve quality and service quality to consumers (Sasuti et al., 2020). The quality of service at an institution can include several things such as e-learning systems, instructor and course materials, administrative support.

E- Learning is the use of media transmission innovation to convey data for instruction for education guidance. Through the advancement of knowledge and communication technology improvement, E- Learning is rising as the worldview of present-day education. E-learning can provide many benefits for universities and students (Samir et al., 2009). For universities, first, e-learning can help universities save many costs related to investment in physics teaching and learning infrastructure (Ramadiani et al., 2017). Second, e-learning can help universities become more digital and contribute to a digital and knowledge-based society (Arguelles & Busquet, 2016). Third, e-learning can help universities integrate into the global education environment (Wong & Huang, 2011).

The quality of e-learning depends on different critical success factors, which has captured the attention of researchers. A well-designed, learner-oriented, interactive, technology enabled, flexible, and inclusive online learning environment can culminate in enormous educational opportunities, with a focus on continuous quality enhancement. There are different factors, which can be broadly classified as technical factors, learner factors, institutional factors, and more. (Roy R. and AI-Absy, M.S.M, 2022)

Nowadays, e-learning as a new paradigm shifts higher-education from instructor-centered to learner-centered and it enhances the quality of teaching and learning by integrating ICT and internet technologies. Applying e-learning in the educational environment encourages the universities and schools to facilitate their learners and enhance their learning opportunities. Furthermore, it can compensate the weakness of traditional education methods and enables the instructors to transfer their knowledge for a relatively large number of students without space and time limitation (Aung & Khaing, 2016). Additionally, as e-learning has the benefits of being low-cost, user friendly, keenly motivating and broadly available, it has started a growing demand from higher education of developing countries while they are facing shortage of expert teachers, shortage of update text books and limited teaching materials. Like other countries, Myanmar realizes that conventional education alone cannot cope with all the demands of higher education,

and ICT-based education will play an important role in Myanmar higher education reform (Tint, 2012; Po, 2015; Yin, 2016).

Customer satisfaction and service quality are leading components of external relations of every organization, as today they greatly determine the competitiveness of organization. Organizations are pay attention firstly to the improvement and implementation of the service standards to build healthy relationship with customers. Service quality is an important cause of competitive advantage in service sector. Service quality is used to differentiate and adding value to service offerings and to get strategic competitive advantage. Today, there is intense competition in results such as research and innovation for society, institutions are also expected to provide high service quality. The institutions can get student satisfaction through providing of excellent service values and this is an integral part in securing a sustainable competitive advantage in today's international educational market (Huang et al., 2012).

In this modern era, while Technology builds up, the learning model must keep on changing to address the issues of different sorts of students. The essential points of interest in Technology based learning situations are adaptability and henceforth, prompting learning satisfaction. Satisfaction is defined as a person attitude or feelings associated with various factors that are affecting a particular situation Bailey Pearson, 1983. Student satisfaction is more accurately conceptualized as student perception developed from the perceived value of education and experience gained at an educational institute. Recently, colleges and universities in Myanmar are using online course management systems such as blackboard system to improve educational outcomes in a globalized and dynamic educational environment. Blackboard system can be defined as “an electronic learning environment in the form of an intranet which enables teachers and students to design education together” (Vrieling, 2006). The research literature indicates that online course management systems offer an innovative, convenient, and functional resource that has strong potential to meet today's learners' requirements (Vrieling, 2006), hence enhancing retention and satisfaction rates.

## **2. Rationale of the Study**

Several factors contribute to making student satisfaction and loyalty an important issue for higher education institutions. Enhanced student satisfaction and loyalty can lead to a stronger competitive position resulting in attracting new students, maintaining the existing ones, positive word of mouth

communication and raising good relationship with students. With the rapid increment of private universities and colleges in Myanmar competing for students who want quality education and value for the service rendered by these institutions, it is very vital that antecedents of students' satisfaction and its relationship with student loyalty to these Higher Education Institutions be measured.

The importance of measuring student satisfaction and loyalty/retention has prompted a number of empirical studies to be carried out in developed countries to ascertain the links between students' satisfaction and loyalty/retention. Empirical studies revealed that student satisfaction has positive relationship with student loyalty and retention.

Therefore, students' satisfaction and loyalty are important issues. Knowing the antecedents of students' satisfaction and loyalty to the higher education institutions can offer the factors to consider for the continuous improvement of the study programmes, teaching, staff and equipment of the higher education institutions (Martensen et al., 2000). Service quality in higher education is defined as a measurement of how well higher education institutions conform to customers' needs and expectations (Govender, Veerasamy & Noel, 2012, as cited in Kara et al,2016). Helena Alves (2010) identified that value perceived by a student is the overall evaluation made of the utility of service based upon the perception of that which is received and that given. He was also presented that value is an antecedent of satisfaction. Standifird (2005) identified that student's perception of image and reputation of the higher education institutions is very important concerning attracting and retaining students. Students choose the universities based on the image of university, the service quality provided by the university, the value perceived by the students.

Another of the issues with e-learning environment identified in literature is that it is assumed that technology is the key success factor. Focus on technology, however, can result in implementers overlooking how e-learning system must consider the point of view of learning delivery, and/or content development. Recent research indicates that students feel stressed because of online learning and prefer face-to-face learning (Patricia, 2020; Fawaz and Samaha, 2021). Hence, the academic performance of students has been affected negatively, leading to a decline in their grades. So, it urges to understand how the satisfaction level and performance of the students can be enhanced using online learning platforms. The most significant challenges encountered are delivering quality education, implementing quality systems required for online learning, and

adapting the latest technologies (Almaiah et al., 2020). This study attempts to develop a comprehensive model linking the factors of the TAM model as well as perceived services quality to students' satisfaction and retention within the use of e-learning environment. TAM model, in particular, tries to understand the nature of relationships between the independent variables of TAM factors: perceived ease of use, and perceived usefulness as well as perceived services quality; reliability, responsiveness, assurance, empathy, learning content and web/page design and the dependent variables of e-satisfaction and e-retention.

### **3. Research Questions**

1. Are there students' perceptions had impact on E-learning quality in Private Business Colleges and Universities?
2. How to explore the effect TAM factors on students' retention in Private Business Colleges and Universities.
3. How to analyze the mediating effect of students' satisfaction between TAM factors and students' retention in Private Business Colleges and Universities
4. Is there the relationship between TAM factors and students' retention in Private Business Colleges and Universities?
5. How to explore the effect of service quality on students' retention in Private Business Colleges and Universities?
6. How to analyze the mediating effect of students' satisfaction between service quality and students' retention in Private Business Colleges and Universities?
7. Is there relationship between e-learning service quality and students' retention in MPBCUs?

### **4. Objectives of the Study**

1. To examine the student' perceptions on E-learning service quality in Private Business Colleges and Universities
2. To explore the effect TAM factors on students' retention in Private Business Colleges and Universities



3. To analyze the mediating effect of students' satisfaction between TAM factors and students' retention in Private Business Colleges and Universities
4. To examine the relationship between TAM factors and students' retention in Private Business Colleges and Universities
5. To explore the effect of service quality on students' retention in Private Business Colleges and Universities
6. To analyze the mediating effect of students' satisfaction between service quality and students' retention in Private Business Colleges and Universities
7. To examine the relationship between E-learning service quality and student retention in Private Business Colleges and Universities

## **5. Method of Study**

### **5.1 Research Design**

The research design is descriptive, cross-sectional and statistical. It is a correlational study. A correlational study is used when relationships between two or more variables are being investigated. Research studies can also be classified according to how the data is going to be obtained. They can be categorized as empirical, experimental, or case study.

This study is an empirical study that uses primary data obtained from a survey. It is correlational because the objective of the study is to analyze the influence of e-learning service quality on e-learning student loyalty through e-learning student satisfaction at Private Business Colleges and Universities.

The research objectives will be studied to examine the students' perception on service quality, satisfaction and students' retention in Private Business Colleges and Universities. And then, the dominant dimensions of service quality that effect on satisfaction of students will be identify by using multiple linear regression analysis. By using structure equation model, especially mediating analysis, it will be determined the mediating effect of students' satisfaction between service quality and Students' loyalty. Moreover, this study will be explored how to relate the technological factors that affect the students' satisfaction by using technological acceptance models.

## 5.2 Population and Sampling

Consider a population to be a full group for making conclusions. A study's target population is the large group of people being investigated. A sample is a subset of the population that collects data from e-learning students in Myanmar. The study objectives were evaluated using a cross-sectional research technique.

This study used convenience sampling method to collect survey respondents who used online buying. Convenience sampling is defined as a method adopted by researchers where they collect market research data from a conveniently available pool of respondents. It is the most commonly used sampling technique as it's incredibly prompt, uncomplicated, and economical. In many cases, members are readily approachable to be a part of the sample as adopting a convenient sampling method have advantages

## 5.3 Data Collection

### (a) Primary Data

Primary data are one-of-a-kind bits of information obtained specifically for this purpose. This signifies that the information was taken directly from the source. This is known as primary data. Primary data, also known as raw data, is information gathered directly from a source through experiments, surveys, or observations. There are two sorts of primary data: quantitative data and qualitative data.

This study mainly used the primary data based on a survey questionnaire of Online users in Mandalay by cross-sectional study. A random sample of 700 respondents is collected by using a convenient sampling method. The survey questionnaire was distributed by Google Forms. In survey questionnaire, it is constructed of four sections:

Each questionnaire contained four sections as following:

Section One – questions about the personal information of the respondents such as gender, age, level of study and so on.

Section Two – questions about the Students' Perception on performance of e-learning Students in Private Business Colleges and Universities.

Section Three – questions about EDUCAUSE Student Technology Survey in Private Business Colleges and Universities.

Section Four – question about the Students' satisfaction survey in Private Business Colleges and Universities.

### **(a) Secondary Data**

Secondary data is material from a prior study that has been made available to researchers. In contrast, primary data is information acquired directly from the source. Secondary data analysis takes place when researchers use information gained from others to promote their own goals. Secondary data analysis is used by researchers to try to answer a new research question or to examine an alternate point of view to the main issue of a prior study.

The usage of secondary data yields a financial benefit. Researchers do not need to invest money, time, effort, or other resources in this stage of the study because the data has already been collected. Previous surveys, observations, questionnaires, personal interviews, government papers, websites, books, journal articles, and internal records were used as secondary sources for this study.

### **(b) Data Analysis**

As a statistical tool, SPSS (Statistical Package for Social Sciences) version 26 was used to analyze the survey data that had been gathered. The survey questionnaire in Section (A) was analyzed using descriptive statistics, particularly mean, standard deviation, frequency, and percentage.

For the purpose of evaluating Influence of E-Learning Service Quality on E-Learning Student Loyalty through E-Learning Student Satisfaction at Private Business Colleges and Universities, Cronbach's Alpha was calculated to gauge the validity of the survey item. The value of the dependent variable was then estimated using multiple linear regression analysis using the values of the independent variables. The closest variables that were significant predictors of the dependent variable were identified by comparing them to the independent variables (tangibility, reliability, responsiveness, assurance, empathy). The factors affecting service quality were determined through analysis.

## **6. Limitations of Study**

The study only focuses on e-learning students' in Myanmar Private Business Colleges and University. Perceived services qualities (reliability, responsiveness, assurance, empathy, learning content, website/page design) and technological acceptance factors are used to analyze the e-learning students' satisfaction and loyalty in at Myanmar Private Business Colleges and Universities.

## **7. Literature Review**

### **7.1. Introduction**

Digitalisation is an unavoidable reality of living in the information age, altering our daily private and professional lives with constant innovation. Institutions of higher learning must likewise adapt to technology and e-learning to remain relevant in the digital age. This transition necessitates a simultaneous evolution of the teaching methodologies and the skills required to teach effectively in a digital environment.

Brink et al. (2020) found that e-learning enhances student learning experiences and creates new operational possibilities, every university has a different framework, and universities rely on students' ability to deal with the digital framework provided by the university. This adds complexity to classroom dynamics from the student and educator's perspectives. Consequently, adapting to e-learning regardless of previous experience can come with a learning curb that alienates users until mastered (Singh 2021). Furthermore, it is vital to ensure students' positive opinions about technology to ensure adoption (Brink et al., 2020)

### **7.2. Concept of E-Learning**

Bullen & Janes (2007) define e-learning as learning that occurs when internet technology facilitates, conveys, and enables the learning process over long distances. A more general definition put forward by Freire et al. (2008), namely E-learning, is the use of interactive means to learn in instructional or training programs. According to Naidu (2006), "e-learning is widely defined as the deliberate use of networked information and communications technologies in teaching and learning." A computer network is one of the media that is used. As a consequence, it is possible to build in web form. Web-based e-learning presentations will be more immersive.

Real-time information about lectures is also possible. Similarly, though not face-to-face, seminar discussion boards can be done online and in real-time. Since the e-learning system does not have entry limits, seminars may be held for a more extended period. Students can use this device whenever and anywhere they want as long as there is an internet connection (Husaini, 2017; Aziz, 2013)

Student retention is the primary metric used to assess the success of higher education websites. Student happiness is critical for all educational institutions to achieve their benefits by developing and sustaining student behaviors and behavioral intentions (Suki, 2013; Szymanski & Henard, 2001). According to Yilmaz, there are two forms of satisfaction: cognitive satisfaction and successful satisfaction (2017). Student successful satisfaction occurs when the exact nature of the information and expertise gained is what the students perceive and positively impact student mindset (Dominici & Palumbo, 2013). This successful satisfaction will minimize e-learning cases and harm the institution's credibility, such as in the Coronavirus lockout, where multiple universities participate in online learning, which can affect student satisfaction and the institution's reputation. Successful e-learning, on the other hand, has a favorable influence on student satisfaction rate.

### **7.3. Services Quality**

The term Service Quality is an association of two different words; „service“ and quality. Service means “any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything”. Quality has come to be recognized as a strategic tool for attaining operational efficiency and better performance of business.

Service quality means the ability of a service provider to satisfy customer in an efficient manner through which he can better the performance of business. In the service sector too „quality“ is an important element for the success of business. It is because of the realization of its positive link with profits, increased market share, customer satisfaction. Several earlier studies and authors pointed out that quality concept in service is different from the concept prevalent in the goods sector. The reasons for such a treatment are inherent features of services like intangibility, inseparability from the provider, heterogeneous etc. Hence there is a distinct frame work for quality explication and measurement. Many authors defined the service quality as follow:

Philip Kotler and Gary Armstrong defined the term 'service quality' as it is the ability of a service firm to hang on to its customer. That is, in their opinion customer retention is the best measure of service quality.

Christian Gronroos suggested that the quality of service as perceived by the customer has two dimensions - technical or outcome dimension and the function of process related dimension.

A. Parasuraman, Valarie A. Zeithaml and L. Berry defined service quality as "the delivery of excellent or superior service relative to customer expectation."

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### 7.3.1 Measurement of Services Quality

In the case of tangible goods, quality can be assessed by examining the goods. Quality control can be used to check specifications and reject defective goods. But service quality cannot be assessed in the same way as a tangible product due to particular feature of service such as, intangibility, in separability etc.

As in the case of goods, the service provider cannot undertake quality check before the service is finally delivered to the customer. In order to assess the service quality the customer judges the expected service quality against the perceived quality when they receive it. There are mainly two methods for measuring service quality viz.,

- | Gap analysis Service

- | performance measures

Gap analysis

Gap analysis model of service quality was developed by Parasuraman, A. et al. in the year 1985.

The model indicated that customer perception of quality was influenced by a series of five distinct gaps. They are mentioned below.

Gap - I - Gap between customer expectation and Management perception. The reasons for this gap are lack of adequate market research and lack of upward communication. This gap can be narrowed by adopting adequate research programs to know customer needs and to improve the communication system. It can be measured by using the SERVQUAL scale and comparing the scores obtained from the management and customers.

Gap - 2 - Gap between Management perception and service quality specification. This gap exists in service firms because of the lack of whole hearted commitment of management to service quality, inadequate service leadership etc. It can be closed by standardizing service delivery process and setting proper organizational goals.

Gap - 3 - Gap between Service quality specification and service delivery. The third gap originates from the discrepancies in the actual service delivery, that is, the service providers or employees do not perform at the level expected by the management. It is because of the ineffective recruitment,

lack of proper incentives and motivations etc. This gap can be eliminated by providing the employees with adequate support system, better human resource management system etc.

Gap - 4 - Gap between Service delivery and external communication. The gap between service delivery and external communication occurs due to exaggerated promise or ineffective communication to the customer, which raise customer expectations. This can be narrowed by efficient and effective communication system.

Gap - 5 - Gap between expected quality and perceived quality. This gap exists because of the inequality in the service expectation of customer and his service perception. This can be overcome by identifying, quantifying and monitoring customer expectations and perceptions through the effective use of marketing and marketing research tools.

### **7.3.2 Service Performance Measure**

An alternative to using gap theory methodology for measuring service quality is the service performance measures. The two types of performance measures can be used under this method.

#### **(a) Soft Measure of Services Quality**

Soft measures are those that cannot easily be observed and must be collected by talking to customers, employees or others.

##### **1. Customer satisfaction surveys**

Under this method individual customers or corporate customer may be asked to rate their specific and overall impression of service delivery. For this a questionnaire or interview schedule can be used. Besides this, focus group interviews and other market research techniques can be utilized for this purpose.

##### **2. Internal performance analysis**

In this method employee surveys are conducted to determine perception of the quality of service delivered to customers on specific dimensions. Also, feedback from quality circles, performance evaluation reports, customer retention levels etc., provide information to monitor quality of services.

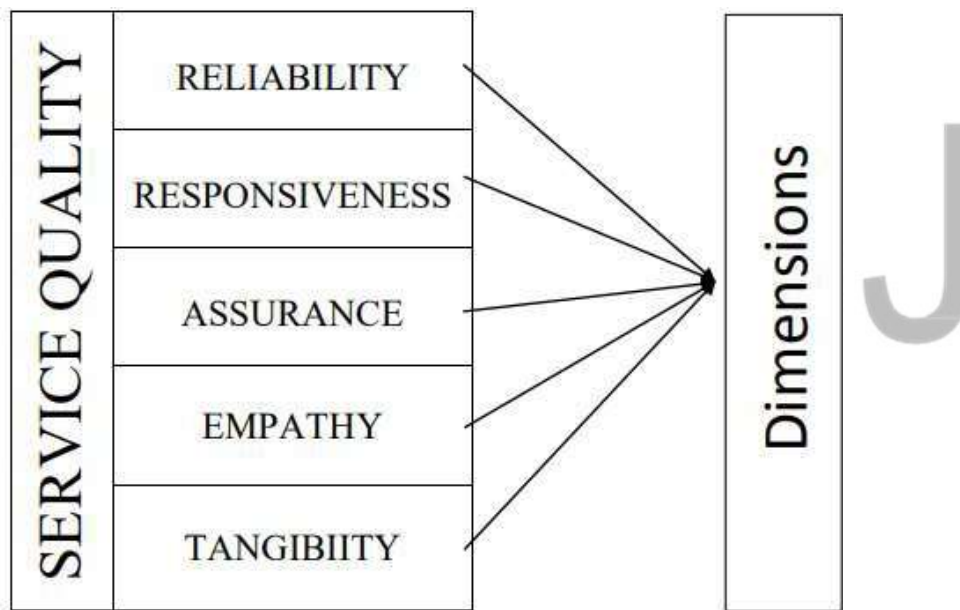


(b) Hard Measure of Services Quality

This method includes those characteristics and activities that can be counted, timed or measured through audits. For Example - Such measures may include waiting time for the pass book to be updated by a bank, time taken to issue a demand draft, delay in clearing and crediting a cheque deposited by the customer etc.

**7.3.3. Dimensions of Services Quality**

The concept 'service quality' is not an independent term, means, its formation depends upon several factors related to service and service firms. These factors are



(a) Reliability

Reliability is defined as the ability to perform the promised service dependably and accurately. In broad sense reliability means, service firms' promises about delivery, service provisions, problem resolutions and pricing. Customers like to do business with those firms, who keep their promises. So it is an important element in the service quality perception by the customer and his loyalty. Hence the

service firms need to be aware of customer expectation of reliability. In the case of banking services, the reliability dimension includes - regularity, attitude towards complaints, keep customers informed, consistency, procedures etc.

#### (b) Responsiveness

Responsiveness is the willingness to help customers and to provide prompt service. This dimension focuses in the attitude and promptness in dealing with customer requests, questions, complaints and problems. It also focuses on punctuality, presence, professional commitment etc., of the employees or staff. It can be calculated on the length of time customers wait for assistance, answers to questions etc. The conditions of responsiveness can be improved by continuously view the process of service delivery and employee's attitude towards requests of customers.

#### (c) Assurance

The third dimension of service quality is the Assurance dimension. It can be defined as employee's knowledge, courtesy and the ability of the firm and its employees to inspire trust and confidence in their customers. This dimension is important in banking, insurance services because customers feel uncertain about their ability to evaluate outcome. In some situations, like insurance, stock broking services firms try to build trust and loyalty between key contact persons like insurance agents, brokers etc and individual customers. In banking services "personal banker" plays the role of key contact person. This dimension focuses on job knowledge and skill, accuracy, courtesy etc of employees and security ensured by the firm.

#### (d) Empathy

Another dimension of service quality is the Empathy dimension. It is defined as the caring, individualized attention provides to the customers by their banks or service firms. This dimension try to convey the meaning through personalized or individualized services that customers are unique and special to the firm. The focus of this dimension is on variety of services that satisfies different needs of customers, individualized or personalized services etc. In this case the service providers need to know customers personal needs or wants and preferences.

#### (e) Tangibility

The fifth dimension of service quality is the Tangibility which is defined as the appearance of physical facilities, equipments, communication materials and technology. All these provide enough hints to customers about the quality of service of the firm. Also, this dimension enhances the image of the firm. Hence tangibility dimension is very important to firms and they need to invest heavily in arranging physical facilities. (Ramya N et.al, 2019)

#### 7.4. E-Learning Services Quality

Service quality measures how much service can be provided by the level of service provided, following consumer expectations (Pham et al., 2019). Based on this definition, service quality depends on the company's ability to meet consumer needs and expectations based on consumer expectations (Karya, 2016). Industrial quality is a product or service that follows the size of the current place of manufacture of the product, and its delivery is at least equal to consumer expectations. Wong & Huang (2011) stated, "The focus of service quality is to meet consumer needs and expectations, as well as the accuracy of delivery to balance consumer expectations, namely consistency between expectations and management concepts, as well as consistency between consumer expectations and employee work standards.

According to Gruber (2010), educational services shared many of the same traits as services in other service sectors, including intangibility, inseparability, heterogeneity, perishability, and lack of ownership. Hemsley-Brown and Oplatka (2006) claimed that in order to sustain themselves and gain a competitive edge, educational institutions needed to implement market- and profit-oriented principles. The fundamental tenet for achieving both is the provision of high service quality. The degree to which services meet customer expectations can affect student satisfaction, university costs and benefits, student switching behavior, and positive behaviors like word-of-mouth and repurchase intention (Leonard, 2015). De Jager and Gbadamosi (2013) also state that collaboration, marketing and support, accessibility, staff and academic quality, accommodations and facilities, and other factors were contributors to student satisfaction with educational services.

Both concepts of e-service and e-service quality have become increasing important issues in research. E-service is different from traditional service, which is based on interactive information flow between customers and service providers. E-service quality has been regarded as having the potential not only

to deliver strategic benefits, but also to enhance operational efficiency and profitability. E-service is becoming even more critical for companies to retain and attract customers. What brings online customers back to company's websites is a sense of loyalty that comes from good services offered by companies. Oliveria et al. (2002) suggest that companies can achieve competitive capabilities by offering good e-services to customers. Service quality has strong impacts on customer satisfaction on the performance of companies. Improving e-service quality to satisfy and retain customers is becoming a challenging issue.

#### **7.4.1 Dimensions of E-Services Quality**

With the increasing application of e-commerce in organizations, the importance of measuring and monitoring e-service quality in the virtual world has been recognized. Some studies have been conducted aiming at developing measurement scales adapted to e-service quality field. Most researches develop adapted e-service quality scales based on the modification of the SERVQUAL instrument. A comparison between SERVQUAL and E-S-QUAL dimensions is investigated in their study as well. Zeithaml (2002) states that some dimensions of the SERVQUAL can be applied to e-service quality, but there are additional dimensions in e-service, many of which are specifically related to technology.

In the US, Shaik, Lowe, and Pinegar (2006) indicated two dimensions of online distance learning programs, namely, instructional service quality and management and administrative services. The instructional services mostly refer to classroom experiences with the instructor and information on the learning website of the university, while the management and administrative services mostly refer to services of help-desk, advisors, administrative staff, and university management.

Limited studies investigated the impact of perceived e-learning service quality on student satisfaction and loyalty. For example, according to Martinez-Arguelles and Batalla-Busquets (2016), e-learning service quality comprises the quality of instructional services (teaching service or core service) and non-instructional services (administrative services, additional or complementary services, and user interface). The concept 'e-service quality' is not an independent term, means, its formation depends upon several factors related to service and service firms. E-learning is distinctive from the conventional learning process and is affected by a different set of determinants. To measure

customer's perception of e-learning quality, six constructs of the SERVQUAL model were used in this study ('website design', which replaces tangibility, and reliability, responsiveness, assurance, and empathy) along with 'learning content' to measure e-learners' perception of their institution's efforts. Learning through the internet reveals a new orientation to the learners, and a systematic evaluation of the e-learning service delivery process may improve its effectiveness. These factors are

#### (a) Reliability

Reliability is a fundamental element of the SERVQUAL model that affirms the ability to provide services timely, exactly, and credibly. It is important to ensure consistency in providing e-learning services and fulfill the commitment to be reliable to customers. Wolfinbarger et al. found that reliability is the strongest predictor of customer satisfaction and quality. Zeithaml et al. defined reliability as the capability of correcting technical functioning and providing the promised services accurately and dependably. Many authors have argued that providing accurate information on a website is the crucial determinant of reliability. With the fulfillment of promises, reliability increases trust in and dependability on the organization. This study adopted the reliability dimension as one of the important determinants of e-learners' perceived service quality. As an information-based service, reliability is considered an important aspect and has a direct impact on perceived service quality and satisfaction.

#### (b) Responsiveness

Responsiveness defines the willingness to respond to customers and offer speedy assistance to fulfill their needs. According to Zeithaml et al., responsiveness refers to a quick response and the capability to solve problems or questions immediately. Providing customers with services and information when they require it is also termed responsiveness. Customers expect appropriate responses and arrangements regarding electronic services. Confirming transactions and delivering the promised services are termed the responsive behavior of the service provider. The level of responsiveness can be measured by the teachers/instructors' responses to student's inquiries and to what extent they give useful feedback for their problems in a reasonable time period. This item is highly relevant to the focus of this study: the customer assessment of service quality in an e-learning context.

(c) Assurance

When customers feel confident in dealing with the online interface and its image and reputation, this is termed as assurance. Trust and credibility are the basic foundation of any business. Parasuraman et al. defined assurance as the knowledge and courtesy of employees and their capabilities to achieve the confidence and trust of their customers. In the online service industry, due to inseparability characteristics, assurance plays a very significant role in the users' perception of service quality. Researchers have suggested different dimensions to measure assurance, such as security of the transaction, privacy of sensitive information, and credibility. The efficient and proper handling of customer's queries and complaints may increase the speediness of e-learning services for new users.

(d) Empathy

Organizations should provide services on a priority basis, and customers need to feel this. Empathy implies caring, giving individual attention, and offering assistance to customers. Customers always want to feel unique and special, which is the main focal point of empathy. According to Kassim and Abdullah, empathy is defined as customized/individualized caring and the special attention paid service providers to their customers. Students who come from different backgrounds and cultures face different types of problems. Caring for and paying individual attention to every student increases the level of satisfaction. Students evaluate institutions positively when they feel that institutions are trying to provide individual services according to their personal needs. Many researchers have focused on empathy determinants to establish their impact on perceived service quality measurement (Sumi, R.S. and Kabir, G, 2021)

(e) Learning Content

The e-learning platform plays a vital role in aiding learning content and communicating with students in organizational learning. According to The Swedish National Agency for Higher Education, material/content and the virtual environment (website content) are considered important constructs among the many quality evaluation dimensions of the e-learning quality model. Student engagement with e-learning is highly related to the relevancy of learning content. The sharing of updated institutional and pedagogical material increases positive responses among learners. Learning content is defined as 'accessible and accurate learning material provided to students in a concise and timely

fashion'. Learning content assimilation and the delivery roles of the instructors are unique and important in the electronic education system. Learning content on websites ensures that learners can review the content at any time and at their convenience. Uppal et al. studied 'learning content' as an information dimension and found a positive influence on e-learners' perception. 'Learning content' quality factors are identified in the literature as structure, updated learning material, and sufficient learning material. Given the above, it is justified for a study to measure the effect of learning content on the learner's perceived quality, and the formulated hypothesis is as follows:

(f) Website/Page Design

The 'website design' construct has replaced 'tangibility', as tangibles are partly covered by the appearance of websites. A course website performs as a medium of e-learning, as justified by many researchers, and it affects learners' perceived quality. Informative and accurate content on websites enriches the customer's understanding and encourages the use of website services. The use of multimedia (audio, visual, and graphics) and the website's accuracy and utility value increase its acceptance to users. Communication and the sharing of educational materials between instructors and e-learners occur through a website medium. Web design and layout, the availability of multimedia, and web content are the major web attributes affecting e-learning experience and perceived quality. Web site features are closely associated with the core evaluation process and positively influence customer attitudes and behavioral intentions. According to Iverson and Colky, a successful e-learning website is enjoyable and engaging, positive and supportive, active, collaborative, and contextual. During a pandemic, website design should be easy to navigate and supply useful information to develop the relationship between the instructor and the learners

### **7.5. Technology Acceptance Model.**

Virtual Learning is the use of media transmission innovation to convey data for instruction for education guidance. Through the advancement of knowledge and communication technology improvement, Virtual Learning is rising as the worldview of present-day education. In this modern era, while Technology builds up, the learning model must keep on changing to address the issues of different sorts of students. The essential points of interest in Technology based learning situations are adaptability and henceforth, prompting learning satisfaction.

Satisfaction is defined as a person's attitude or feelings associated with various factors that are affecting a particular situation (Bailey & Pearson, 1983). Student satisfaction is more accurately conceptualized as students' perception developed from the perceived value of education and experience gained at an educational institute. In past research, scholars have approved that virtual learning structure enhances students learning and their satisfaction level (Astin, 1993).

The learner satisfaction from the use of virtual Learning technology environment by using the Technology Adoption Model (TAM). Various researchers from information and technology system have acknowledged the essential factors dealing with virtual learning. Along with the technology acceptance model (TAM) (Davis, 1989; Sarwar, Zulfiqar, Aziz, & Chandia, 2018; Sun et al., 2008) of those discussions have partially contributed to considerate the online learning and learner satisfaction. Such kind of models specially tends to focus on information and technology. The TAM model states that users' positive perception of usefulness as well as ease of use toward any technology will lead to a positive attitude toward using that particular technology. Since the introduction of the TAM model by Davis (1989), it has been generally used for predicting acceptance, adoption, and use of information systems (Halawi and McCarthy, 2007). However, in this research, TAM model will be used for a different purpose; rather than predicting the acceptance and use of information systems, we will investigate how TAM factors mainly might contribute toward increasing the rate of students' satisfaction and retention. The TAM is mainly focused on the building that "perceived usefulness" and Perceived ease of use are strong motivational variables to believe and latest use of advanced technologies.

### **7.5.1 Perceived Usefulness**

Perceived Usefulness is discussed as "the amount to which an individual considers that utilizing a specific framework would improve his/her satisfaction and work performance" (Davis, 1989). It represents the meaningful outcomes derived from the characteristics of technology being utilized (Rauniar, Rawski, Yang, & Johnson, 2014). On the other side perceived ease of use is discussed as "the degree in which a people considers that utilizing a particular system would be free of any mental and physical exertion" (Davis, 1989). further studies also posit that the use of information technology tools dramatically depends on its perceived usefulness and perceived ease of use (Venkatesh et al., 2003), that great advantage of online learning over traditional face-to-face teaching (Piccoli, Ahmad,



& Ives, 2001) whereas concerns arising from its use include time and location, work intensiveness, and material resources engaged with running virtual learning situations. Educational performance and learning of scholars were additionally estimated by some differences in regards to enhanced creativeness and communication skills because of the usefulness and level of easiness of use that the internet learning tools possess (Kabilan, Ahmad, & Abidin, 2010)

### **7.5.2 Perceived Ease of Use**

Perceived ease-of-use is the degree to which a person believes that using a particular system would be free from effort Davis F. D. , 1989. Theory of reasoned action TRA argued that behaviors are controlled by cognitive factors which can be measured by predicting behavioral intentions. Moreover, Technology acceptance model TAM postulates that individuals intention to use technology is determined by perceived ease of use and perceived usefulness Davis F.

Particularly, improved consumers perceived ease of use resulted in increased performance because it would generate a positive impact on perceived usefulness Venkatesh Davis, 2000. Prior marketing literature validates a significantly positive relationship between ease of use and perceived usefulness in online context Bign-Alcaniz, RuizMaf, Alds-Manzano, and Sanz-Blaz, 2008 Wu H. -C. , 2013. Arbaugh 2000 and Chiu, Chang, Cheng and Fang 2009 documented a significantly positive impact of perceived usefulness on satisfaction. Prior studies have also confirmed the positive relation between perceived ease of use and favourable attitude or satisfaction Chang Wang, 2008 Stoel Lee, 2003, among individuals ease of use, perceive usefulness and intentions in the context of e-learning Arbaugh Duray, 2002 Pituch Lee, 2006.

### **7.6. Student Satisfaction**

In both higher education and business, students make up the majority of the customer base. Universities that are both public and private. Institutions have provided for their clientele, students, on a global scale. It served as, student satisfaction. a predisposing factor that affected the intention of students to return or enroll in the program as well as their sense of loyalty, trust, and good word of mouth (Nguyen and Nguyen, 2016; Azam, 2018).

Students' short-term attitude, or student satisfaction, is evaluated based on their experiences with the

services they received. Institutions of higher learning frequently worry about student satisfaction because it influences motivation, enrollment, and retention of current students. Nevertheless, some reviews of the literature cited the absence of a generally acknowledged definition of satisfaction with regard to the idea of service quality as well as the general absence of a well-defined instrument for gauging student satisfaction in higher education institutions in 2012 (Danjum and Rasli). To define customer satisfaction, however, a number of studies have been conducted. Customer satisfaction is believed to include elements of service quality, according to Kiran (2010). Khan, Ahmed, and Nawaz (2011) assert that the more satisfied students are with their education, the more effort they are willing to put into it.

Customer satisfaction is important because it has an effect on financial performance of a firm as evidenced by some studies of financial services in the US that indicated that there was a positive correlation between the proportion or percentage of business done with a customer and that customer's satisfaction Kasper et al. , 2006.

Service quality is among the factors that determine customer satisfaction and customer satisfaction can lead to customer loyalty Kasper et al. , 2006. Customer loyalty has a positive impact on the financial performance of a firm Gronroos, 2007. This can happen because of referrals, cost savings, and increased business from existing customers. Evans 2011 cites an example of one US University where the implementation of quality programs lead to increased student satisfaction. As a result, 90 of the undergraduate students and alumni said that if they could do it all over again they would enrol in the same university.

Some recent studies in this area have also supported the view that service quality leads to customer satisfaction. A study carried out by Sulieman, 2013 on Jordanian banks revealed that the five dimensions of service quality have an effect on level of customer satisfaction. Another study conducted in United Arab Emirates on branch campuses of some international universities found that qualified lecturers, technology and other resources had an effect on student satisfaction Wilkins Balakrishnan, 2013. However, student satisfaction levels seemed to vary with nationalities and programs.

### **7.6 .1 The relationship between Perceived Service Quality and e-satisfaction**

Satisfaction can be described as the customer's fulfillment reaction to a service obtained from passionate evaluation and emotional assessment. According to Oliver, customer satisfaction is defined as matching the expectation of services and products. When the perceived performance matches or exceeds customers' expectations, satisfaction arises, and if it does not, then dissatisfaction occurs. Subsequently, positive (or negative) perceptions of customers regarding the quality of different service dimensions will lead to satisfaction (or dissatisfaction) with the online services offered through websites. Students' satisfaction can be characterized as a personal assessment backed by educational knowledge, understanding, and facilities. In terms of internet learning, e-learner satisfaction is considered one of the focal segments for recognizing the attributes of e-learning. Numerous studies have confirmed that electronic learning service quality influences e-learners' satisfaction.

As the new technologies develop, the model of learning and teaching must keep on changing to meet up the requirements of various types of students, learners, and the instructor. The primary benefit of new technology-based learning conditions is adaptability and consequently student's learning satisfaction. According to Martínez-Torres et al. (2008), the bright, reasonable message is that customary frameworks must be changed to end up substantially more open and adaptable, with the goal that students can have singular learning pathways, appropriate to their requirements and premiums, and ultimately take benefit of equal opportunities all through their learning period and lives. In recent years, web-based learning has developed in popularity as a learning model, and whether the plan of a web-based learning framework satisfies the requirements of students and learners straightforwardly influences their learning satisfaction. Since web-based learning is getting much attention in recent years, the model of this research is ongoing. It includes points, for example, the information technology abilities of virtual learning (Piccoli et al., 2001), the impact of changes to internet-based learning teaching models evaluation and examination of web-based learning to improve learning satisfaction (Lai, Luo, Zhang, Huang, & Rozelle, 2015). Arbaugh (2002) recognized the apparent adaptability of the medium, ease of use, usefulness, media diversity, earlier instructor knowledge, virtual immediacy behaviors, and communication as the essential vital factors that are affecting student and learner's satisfaction in web-based learning conditions.

E-satisfaction is a significant importance in online services-related literature, since this satisfaction influences user's decision to continue using the distribution channel or not (Lin and Sun, 2009). Szymanski and Hise (2000) viewed e-satisfaction as the users' judgment of their online overall experience over a period of time. E-satisfaction, in this paper, measures the degree in which users are both satisfied/dissatisfied and pleased/displeased with blackboard services. Bansal et al. (2004) reviewed many studies that investigated the antecedents of e-satisfaction; they found that most of the variables that contributed to higher level of e-satisfaction are either related to the web site or to the perceived value of the web site.

In the literature, there is an intensive investigation of the relationship between e-service quality different factors such as reliability, responsiveness, personalisation, security, trust, interactivity, accessibility, and e-satisfaction. Most of those studies found a positive association between e quality factors and e-satisfaction. There is a strong relationship between service quality and customer student satisfaction. Moreover, student satisfaction is significantly affected by effective communication between students and faculty. Additionally, the academic staffs' quality of service and their interaction with students are related to retention rates and student satisfaction. (Moslehpour and et.al , 2020)

### **7.6.2 The relationship between TAM factors and e-satisfaction**

Service quality is linked to user's satisfaction in the information systems and marketing fields Yen and Lu, 2008. Satisfaction in the field of marketing is defined generally as the feelings or judgments of the customer toward products or services after they have been used Jamal and Naser, 2003. Customer or client satisfaction is considered a key to success in today's highly competitive environment.

E-satisfaction is a significant importance in online services-related literature, since this satisfaction influences users decision to continue using the distribution channel or not Lin and Sun, 2009. Szymanski and Hise 2000 viewed e-satisfaction as the users judgment of their online overall experience over a period of time. E-satisfaction, in this paper, measures the degree in which users are both satisfied/dissatisfied and pleased/displeased with blackboard services.

However, to the authors' knowledge, there is only one study that tried to link TAM factors to e-satisfaction and e-loyalty conducted within online shopping context by Lin and Sun (2009). They

found a positive and significant relationship between TAM factors and e-satisfaction as well as e-loyalty. However, in their study, they did not specify the different TAM factors influence on e-satisfaction and e-loyalty; instead they aggregate all factors into one construct called “technology acceptance factor”. Accordingly, they did not provide an accurate picture on which or how each TAM factor might influence e-satisfaction as well as e-loyalty. In this study, we proposed the two factors of TAM perceived ease of used; and Perceived usefulness, as independent variables influencing E-satisfaction and e-retention. Perceived ease of use is defined as the degree to which a person believes that using a particular system would be a free effort Davis, 1989. Different studies have used the construct perceived ease of use as antecedent of e-satisfaction Barnes and Vidgen, 2000 Jeong and Lambert, 2001 Madu and Madu, 2002 Zeithaml et al. , 2001. In an e- learning context, students that perceive the system to be easy to use, develop better attitudes toward e-learning Saade and Kira, 2009. Despite the use of TAM factor in different studies as quality factors, the literature lacks a focused discussion of the importance of TAM factors as powerful predictors of students’ e-satisfaction and e-retention within e-learning.

### 7.7 E-satisfaction – e-retention relationship

Retention has often been seen as synonymous with loyalty Al-Hawari, 2006 Al-Hawari and Ward, 2004. Further, there seems to be a consensus among academics and practitioners that retention and loyalty are very similar Maloles, 1997. Retention is difficult to define. In general, there are three distinctive approaches to measuring retention behavioral measures, attitudinal measurement, and composite measurement Bowen and Chen, 2001. In a service context, retention is frequently defined as observed behavior Liljander and Strandvik, 1994. However, the behavioral models that used repeat purchase as the only measurement of customer retention have been criticized for their lack of conceptual basis since this measurement may not have indicated an attachment to a particular brand but may instead reflect mere habit Day, 1969 and may not yield a comprehensive insight into the underlying reason for retention Bloemer and Kasper, 1995.

The third approach has combined the behavioral, attitudinal, and cognitive aspect of retention (Bloemer et al., 1998). The involvement of a psychological/attitudinal construct with repeat purchases has been shown to be important in achieving absolute retention (Oliver, 1999). In this regard, retention has frequently been operationalized as the first thing that came to mind when making a

purchase decision. Thus, e-retention can be defined in this paper as the degree to which users exhibit repeat behavior to the e-learning, and possess a positive attitudinal and cognitive disposition.

Satisfaction has traditionally been regarded as a determinant of retention. The more satisfied the users were, the easier it was to get attached to e-learning. The link between satisfaction and retention has been acknowledged in the literature. Many studies have investigated the relationship between satisfaction and retention rates in different industries Ranaweera and Prabhu, 2003. Generally, positive satisfaction has been found to influence retention Nguyen and LeBlanc, 1998. Some studies found that repurchase intentions were positively influenced by satisfaction across product categories, and that customers were more likely to be retained as satisfaction increased Anderson and Sullivan, 1993.

### **7.7.1 Behavior Intention**

Behavioral intention represents the repurchase intentions, word of mouth, loyalty complaining behavior, and price sensitivity Zeithaml et al. , 1996. Previous research has not captured the full range of potential behaviors likely to be triggered by service quality. In many studies, positive word of mouth, willingness to recommend and repurchase intentions are used to measure behavioral intentions Theodorakis and Alexandris, 2008 Ozdemir and Hewett, 2010.

Continuing intention related to a buying behavior of goods depended on their past experience and strongly related to customers intention to buy or repurchase or recommended this goods or service to an others Oliver, 1999. Likewise, the decisions in the process of continuing education or the decision to pursue any other major of a student at any specific university was the same to the selection to repurchase a particular service or goods or the consumer decision to continue the use of information systems Chiu Wang, 2008.

Behavioral loyalty is considered as being consistent, repetitious purchase behavior, while attitudinal loyalty reflects an emotional and psychological attachment Bowen Chen, 2001. Cognitive loyalty is a higher order dimension and involves the customers conscious decision- making process in the evaluation of alternative brands before a purchase is affected Caruana, 2002. In a higher education context, student repurchase intention also contains an attitudinal and behavioral dimension and refers to the time both during and after the students' period of study Henning-Thurau, Lager, Hansen,

2001. Rojas Mendez, Vasquez-Parraga, Kara, and Cerda-Urrutia 2009 indicate that student repurchase intention can be viewed as a competitive advantage, because keeping the existing students is more cost effective than attracting new ones.

### **7.7.2 The relationship between TAM factors and e-retention**

The literature has sustained different views on the way that the four proposed independent factors in this paper could influence retention. Some authors have indicated indirect influence only through satisfaction Caruana, 2002, while others argued for a direct effect Ranaweera and Neely, 2003. As discussed previously, the general concept of retention has measured using three different approaches behavioural, attitudinal, and composite. The use of either behavioural approach or attitudinal approach has been criticised in the marketing literature as introduced previously.

There are very few studies that linked TAM factors to the general concept of retention. Among those that exist, Cyr et al. 2006 linked usefulness and ENJ directly to e-loyalty within mobile industry. They found that ENJ and usefulness has a positive and significant influence on e-loyalty. Another study conducted by Lin and Sun 2009 has also investigated the relationship between the composite factor of TAM they did not separate it into different dimensions and e-loyalty within online shopping context.

### **7.7.3 The relationship between the perceived services quality and students' retention**

There is a clear link between students' retention and service quality, according to research. Lestari et al. showed that students tend to form favorable impressions and perceptions of an institution when they receive better service quality from it. Similar to other categories of service organizations, the educational sector places a premium on brand image. Customers' satisfaction, according to Kunanusorn and Puttawong, may influence institutional image. Therefore, a positive institutional reputation could result in a lot of satisfied students. Mediating effects between student satisfaction, service quality, Technological Acceptance Factors and Student Retention

Higher customer satisfaction is produced by better service quality, and this results in the development of a positive reputation. Ali and colleagues. revealed that a variety of factors, including both

academic and non-academic factors, as well as effective student-faculty communication, affect student satisfaction. Lin et al. It was emphasized that student satisfaction is crucial because it is the only performance indicator of service quality for service providers in higher education. In other words, student satisfaction is determined by the service quality of higher education institutions as it relates to faculty performance, advisory staff performance, learning activities, and library services. The image or reputation of a company is also impacted by the quality of its services, according to some researchers. Along these lines, Ali et al. found that student satisfaction has a significant impact on university image and that happy students have a positive perception of the institution.

Moreover, Kok revealed that a Technological Acceptance factors: perceived usefulness and perceived ease of use as well as effective student-faculty communication, affect the student satisfaction. Universities strive hard to work with E-learning platforms in providing an effective learning environment and rich online courses for university students, but many research findings show that the e-learning teaching outcome is not up to expectation. This study extends the Technology Acceptance Model TAM by incorporating relationship quality as a mediator to construct a comprehensive framework for understanding the influence on continuance intention.

The study shows that perceived ease of use and perceived usefulness have significant influence on continuance intention through the mediation of relationship quality, consisting of satisfaction and trust. (Chen, 2020)

## **8. Previous Studies**

According to Kok Hand (2022), universities are making great efforts to cooperate with e-learning platforms to provide students with an effective learning environment and rich online courses, but many studies have shown that the educational performance of e-learning is not is satisfied. expectations. It turned out not to be enough. . . This study aims to evaluate whether institutional support plays a mediating variable in the relationship between TAM technology acceptance model variables and students' satisfaction with e-learning use in the context of the COVID-19 pandemic. The respondents are among 344 students from various disciplines who were forced to study via e-learning at a private university in Malaysia during the pandemic.

Researchers accomplishing a look at at a public college in Vietnam diagnosed the relationships among e-studying carrier great attributes, average e-studying carrier great, E-learning scholar



satisfaction, and E-learning scholar engagement. The Vietnamese state of affairs is taken into consideration. Survey facts amassed from 1,232 college students had been analyzed the usage of exploratory issue analysis, confirmatory issue analysis, and structural equation modeling. As a result, the great of E-learning offerings changed into taken into consideration to be a secondary thing inclusive of 3 factors: the great of the e-studying system, the great of the e-studying trainer and coaching material, and the great of management and E-learning. Support offerings. The maximum essential degree of the general great of e-studying offerings changed into the great of the E-learning system, observed through the great of teachers and E-learning coaching materials, in addition to the great of management and E-learning guide offerings. . . (Pham, L et al. the East. 2019)

Bolgens Gopal. R, Singh. B and Agarwal. According to A (2021), the cause of this take a look at is to pick out the elements that have an effect on pupil pride and the fulfillment of on line guides withinside the scenario of the COVID-19 pandemic and to pick out the connection among those variables. The take a look at is quantitative in nature and facts became accrued from 544 respondents thru an internet survey on enterprise management in Indian universities. Structural equation modeling became used to investigate the proposed hypotheses. The consequences display that 4 impartial elements had been used withinside the take a look at. Cannes. J.H and Sa H.J (2021) investigated the modern country of on line studying adoption the use of a era adoption model. The center of this take a look at is the extrade in Korean training because of the COVID-19 pandemic and the prediction of modifications withinside the post-corona instructional environment. To degree the recognition charge of on line guides, a survey of 313 college students taking on line guides became conducted. Data had been analyzed the use of structural equation modeling. The consequences of the studies are as follows. First, ease of use of on line guides became located to have a advantageous impact on perceived usefulness. Second, each ease and value of on line guides had been located to have a advantageous impact on instructional pride.

McLaughlin and Brady (2018) carried out a examine at a non-public college in Ireland to decide if there's a dating among delight with carrier excellent, value, and students' studying intentions and behaviors. This examine truly verified that students' perceptions of the excellent of offerings they acquire have a considerable effect on delight. On this topic, the Azam 2018 examine hypothesized the connection among consumer delight and behavioral intentions in non-public better schooling establishments in Saudi Arabia and 4 elements of carrier excellent: trust, empathy, trustworthiness,

and responsiveness. Consumer conduct researchers have a tendency to apply behavioral and attitudinal methods. The behavioral method specializes in marketplace share, emblem attachment, restricted purchases, flexibility and price, at the same time as the attitudinal method specializes in delight, loyalty, emblem love, attachment or emblem and emblem attitude. Goodbye now. Behavioral and attitudinal methods are frequently criticized via way of means of many researchers. This examine specially specializes in the carrier industry. Customer delight studies on this region remains in its infancy (Bloemer, Ruyter, & Wetzels, 1999). Given the problems in acquiring behavioral data, this method is taken into consideration greater dependable for the carrier sector, at the same time as the attitudinal method is greater regular with survey methodology (Ruddell- Thiele and Mackay, 2000).

Few researchers have tested typical pleasure results. A robust courting among pleasure and loyalty has been observed (Szymanski and Hemard, 2001). Yoon and Kim 2000; It has been proven to have a effective courting with pleasure and a bad courting with diverse behavioral changes. Research on customer pleasure and attitudes has proven that effective feelings frequently cause effective results and, conversely, bad feelings cause bad results (Babin and Babin, 2001; Machleit and Mantel, 2001). Other research have proven that bad feelings have a more effect on post-election opinions than effective feelings (Inman et al. 1997). These conflicting findings are because of the unique varieties of feelings measured withinside the research. Inman et al (1997) centered on remorse as opposed to euphoria and pleasure in poetry approximately disappointment. And Yu and Dean (2001) selected to take a look at happiness.

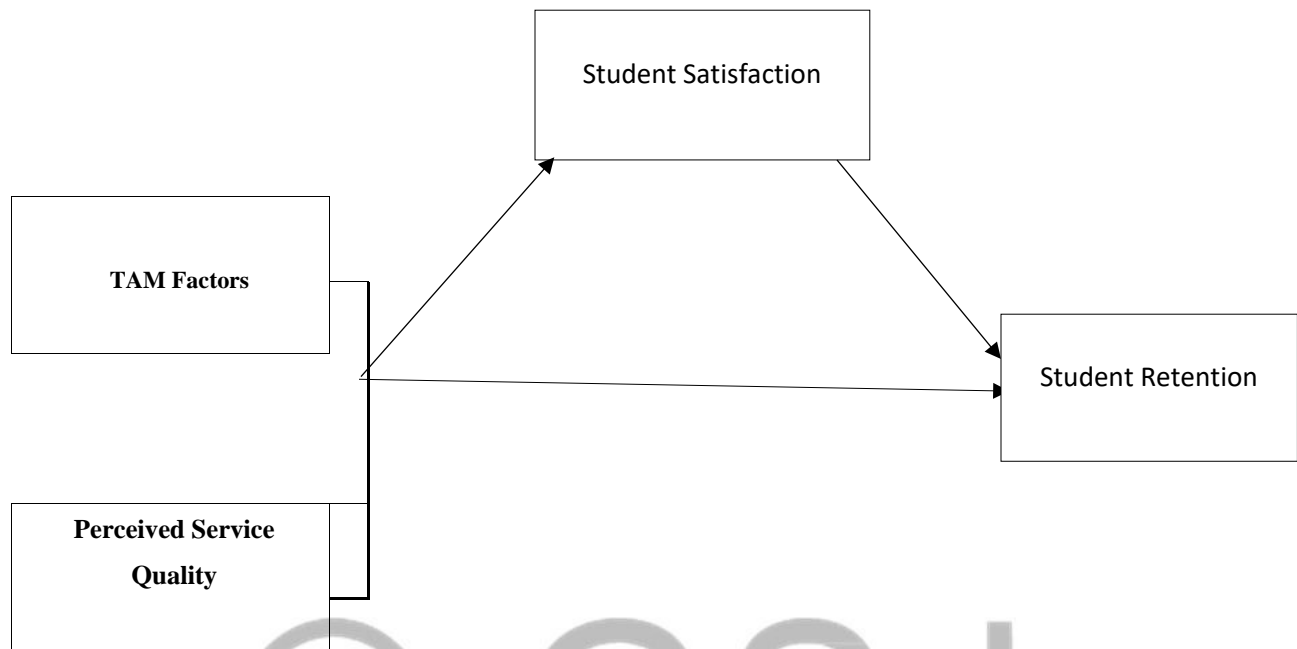
## **9. Conceptual Framework of the Study**

The proposed version is proven in Figure 2.3 when it comes to the above assessment. This observe used the technique of Parasuraman, Zeithaml, and Berry 1988. Previous studies has described SERVQUAL because the cappotential of better schooling establishments to fulfill or exceed scholar expectations. This observe additionally tries to expand a complete version that hyperlinks the era reputation version (Davis, 1989) with scholar delight and retention withinside the context of the blackboard gadget. Specifically, this version seeks to apprehend the character of the connection among the unbiased variables of the TAM elements (perceived usefulness and perceived ease of use) and perceived carrier nice (reliability, responsiveness, trust, empathy, mastering content

material and net web page design/ net).fa. ). . Dependent variables of e-delight and e-retention This observe turned into carried out to locate the connection among carrier nice, TAM elements and scholar loyalty. The mediating impact of a Myanmar non-public enterprise school's e-mastering gadget on scholar delight. The unbiased variables are carrier nice and TAM elements. Student delight acts as a mediating variable and scholar loyalty acts as a based variable. The definition of every variable is supplied withinside the following paragraphs.

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*Figure 2.3 Conceptual Framework of the Study*



Source: Own Creation from Previous study

## **10. Organization of the Study**

This study comprises five chapters. Chapter 1 describes introduction, background of the study, rationale of the study, objectives of the study, and organization of the study. Chapter 2 presents the literature review. It consisting of the concept of e-learning, service quality, e-learning service quality, Technology Acceptance Model (TAM), student satisfaction and retention. Chapter 3 describes research design and methodology. Chapter 4 research finding, describes the industry background and empirical analysis of the effects of service quality and TAM factors on behavioral intention of students and student retention. In the last Chapter 5 represents conclusions based on the findings and discussion, suggestions and recommendation, and needs for further study.

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