

**QUALITY ENHANCEMENT IN E-LEARNING FROM LEARNERS'
PERSPECTIVE: A CASE OF VIRTUAL UNIVERSITY OF PAKISTAN**



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fulfillment of the requirements for the degree of
Doctor of Philosophy in Business Administration**

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No part of this thesis has been submitted anywhere else for any other degree. This thesis is submitted to the Faculty of Business and Management Sciences, The Superior College, Lahore in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the field of Business Administration at The Superior College, Lahore.

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Dedication

This thesis is dedicated, firstly, to my Husband for his remarkable fidelity and love for me. For my doing a PhD was His dream, which has come true.

This thesis is dedicated, secondly, to the person who supported me throughout my career, my respected mentor Prof. Dr. Ch. Abdul Rehman. There are no words to convey how much I am thankful to him.

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Definition of Key Constructs

Quality Enhancement

Quality enhancement is a process of augmentation or improvement. It has two strands: first, it is the enhancement of individual learners; the augmentation or improvement of learners' attributes knowledge, ability, skills, and potential. Second, it is the improvement in the quality of an institution or program of study (Williams, 2016).

Blended Learning

Blended learning is the concept of the combination of face-to-face and online learning. Blended learning should be understood as an opportunity to redesign the way that courses are developed, scheduled, and delivered (Watson, 2008).

Collaborative Learning

Collaborative learning is about sharing and giving meaning for collective intelligence (Dillenbourg, 1999).

E-Learning

There are many alternative words for the concept of e-learning, for example (in alphabetic order), blended learning, digital learning, distance learning, enhanced learning, mobile learning, net-based learning, online learning, open learning, ubiquitous learning, and web-based learning. Often, the concepts are seen as synonymous. On the enhanced learning aspect, the term 'technology-enhanced learning' is commonly used instead of e-learning when defining an e-learning conceptual framework project, "teaching and learning," which may represent a part or the whole of the education model in which it is used; it "makes use of electronic media and devices to facilitate

access, promote evolution and improve the quality of education and training” (Moore, Dickson-Deane, & Galyen, 2011).

Quality Guidelines

Quality guidelines is a process for improving performance by constantly identifying, understanding, and adapting best practices and processes followed inside and outside the company and implementing the results. The main emphasis of defining quality standards is on improving a given business operation or a process by exploiting ‘best practices,’ not ‘best performance’ (O'Dell & Grayson, 1998).

Participation

Participation is understood as the learners’ active involvement in their learning processes (McLoughlin & Lee, 2008).

E-learning Experience

E-learning experience is “the use of the internet and digital technologies to create experiences that educate fellow human beings” (Rodrigues, Sabino, & Zhou, 2011).

Student Support Services

The term ‘student support services’ is related to academic, administrative, or system support to students. These student support services can be either ‘learner support’ or ‘learning support.’ Learner support comprises all the assistance provided by distance education or an e-learning system that matches the facilities which a face-to-face system provides for the success of its students. Learning support lists the assistance provided by an institution in the actual process of learning to ensure that the learning tasks are performed successfully (Jordan, Van Zandt, & Wright, 2008).

Customer Participation

Customer participation refers to “the degree to which the customer is involved in producing and delivering the service” (Ertimur, 2008). At this point, it is emphasized that participation is broader than co-production, with the latter marked by organization-defined parameters (Rehman & Dean, 2010).

Value Proposition Customization

Value proposition customization allows a firm to adapt its ‘standard’ value offer by taking a customer’s specific requirements into account, arguably making its offer add more value to the customer experience (Kalyanaram & Krishnan, 1997).

Value Co-Creation

The term ‘value creation’ involves activities undertaken by the customer which results in the production of goods/services they eventually consume, and that become their consumption experiences. This definition is consistent with the notion of value co-creation (Alves, Fernandes, & Raposo, 2016).

Co-Production

Customer co-production can be defined as: “customer participation within organization-defined parameters. Co-production implies that work is transferred from the organization to the customer. In a sense, customers become ‘partial employees’ and can influence service quality” (Rehman, 2014). This definition means that customers participate to the extent that service is produced, but co-production does not include the voluntary aspects of participation (Bovaird, Van Ryzin, Loeffler, & Parrado, 2015).

Abstract

Technological advancement and the internet have changed people's lives on different scales even in education. The web has become one of the channels of learning that opens the door for people around the world. Now, through e-learning, people can access educational facilities at home at little or no cost. However, without quality education, this platform will be useless and will ultimately lose the interest of scholars. Nowadays, researchers believe that the quality of services is not possible without a customer perspective; similarly, online education is a co-creation of an institution's design services and students' feedback. Unfortunately, e-learning institutes have no comprehensive study package and they are bound to follow the policies of conventional education, which creates dissatisfaction among e-students, and, most of the time, these frustrations remain unaddressed (Ellahi & Zaka, 2015a). To incorporate the customer perspective in designing e-learning solutions a qualitative study was conducted. By using the purposeful sampling technique, 22 participants were selected from the Virtual University of Pakistan for in-depth interviews. The resultant transcripts were analyzed through NVivo 12.

The study suggests that quality enhancement in student experience is not possible without the involvement of e-learners, because both students and the institute are the key partners of value co-creation. A co-created process model will be a useful tool for the Virtual University of Pakistan in developing its curriculum, policies, and processes. This tool will help the institute to enhance students' satisfaction and improve retention rates at the university.

Key Words: Virtual university, quality enhancement, e-learning, co-creation.

CHAPTER 1: INTRODUCTION

1.1 Research Background

The global market is changing according to the perception of the customer. Now the customer has become the most significant stakeholder of the international market (Al-Dmour, Dawood, Al-Dmour, & Masa'deh, 2020; Jeon, Lee, & Jeong, 2020). Advancement in technology creates a lot of opportunities for customers, for example, they can acquire quality goods and services from anywhere in the world at affordable prices. In Pakistan, more than 35% of the population regularly uses the internet for their day-to-day needs, like social networking, purchasing of goods and servicing, payment to the vendor, and acquiring banking facilities (Raza, Khan, Shahbaz, & Saleem, 2020). Today, the whole world's markets are connected and accessible and financial transactions and information sharing are possible due to fast and reliable internet speed. This improved access has created bigger opportunities and challenges among competitors.

Nowadays, technology is involved in every aspect of life including the education system, which is termed as 'online education' or 'e-learning system.' In this system, students are not bound to attend the physical classes of universities', they can take online classes through the internet where the course instructor and study material are available. Moreover, through online education, students can enroll in any institute of the world with minimum restrictions. Furthermore, the ease of communication systems, like email, video conferencing, and students' portals, helps students to get information easily from their institute. Online education also facilitates students to study at a time convenient to them (Barkley & Major, 2020; Finch et al., 2020). Additionally, with the development of new technologies and improvement in teaching pedagogies of the online education system, the number of students enrolled in online education is increasing day by day.

Currently, the online education system has resolved the issues of time, place, resources, and learning environment. Now, students can get education from the world's best instructors at their home and can improve their knowledge and skill. The online education system creates opportunities among students to get acceptable higher education with all the mandatory requirements of governing bodies. Moreover, the online education system also facilitates those students who have physical disabilities and are unable to go to an institute (Palloff & Pratt, 2013). In addition, the online education system facilitates working people, housewives, and senior citizens to enhance their education.

Higher education bodies are paying special attention to the improvement of the academic structure due to the high expectations of the major stakeholders including government, students, university management, and prospective employers. They also update their curricula at regular intervals and develop new programs to meet graduates' market requirements. Educational institutes are also paying special attention to their students because they consider them paying customers (Benckendorff, Ruhanen, & Scott, 2009; Desch et al., 2005; Green, 2019; Siivonen & Filander, 2020; Sperka & Enright, 2019). This student perspective has forced institutes to provide additional services to traditional education, such as internships, community services, membership of clubs and societies, and project-based learning (Crossley, 2004; Green, 2019). It has been acknowledged by the universities that well-engaged and well-supported students produce not only the best academic results but also contribute to the economy of the country (Coates et al., 2020; Green, 2019).

On the other hand, it has been acknowledged that online educational practices have failed to engage students in co-curricular and extracurricular activities which are necessary for students' exposure and personality development. Online educational institutes are concentrating mainly on the results

of their students and there is less focus on the achievement of graduate attributes (Juhaňák, Zounek, & Rohlíková, 2019; Xu & Jaggars, 2014). In addition, the online education system has failed to identify the significance of specific outcomes (Eom & Ashill, 2016). Furthermore, online instructors are not aware of the techniques that are widely used to get desired results (Waalkes, Benschhoff, Stickl, Swindle, & Umstead, 2018).

In the recent past, students' attention has been diverted to the online education system due to flexible time and cost-effectiveness (Norton, 2013). Unfortunately, the criteria and standard which are applied for on-campus education system are also implementing on online education instead of understanding the needs of the online students (Cavanaugh & Jacquemin, 2015; DiRienzo & Lilly, 2014). Most of the critics are raising their concern about the quality of education, students' retention, students' satisfaction, and attainment of subject learning outcomes in the e-learning education system (Allen & Walter, 2016). In the past, a few researchers tried to provide suggestions and recommendations to answer these concerns, but they failed to satisfy them.

The quality of the online education system is questionable due to incomplete and controversial criteria defined in previous studies. However, different researchers have different views about the online education system. Driscoll, Jicha, Hunt, Tichavsky, and Thompson (2012) claimed that students enrolled in an online education system are much satisfied than those learners who are studying in a face-to-face teaching system. On the other hand, some researchers are not in favor of online courses, they believe that online courses produce poor grades and less student satisfaction (Abdous, 2019).

Stephan, Gläser-Zikuda, and Markus (2019) claimed that we cannot compare online education with on-campus education due to fundamental differences in the mode of education; however, if course contents are the same, then we can compare both the education systems with the help of

students' results, students' satisfaction, and students' engagement. Furthermore, we can determine the quality of the online education system by measuring the achievement of students' goals and objectives. This must include students' employability, employer's satisfaction, and their average market revenues.

The student perspective is strikingly limited in the online education literature irrespective of various and diverse interpretations of online education. Until now, only a few researchers have comprehensively explored and investigated students' expectations and perspectives of online education; the possible impact of expectations along with subsequent experiences of e-learner outcomes has not been explored. To promote online courses, universities may propose aims and objectives; students might pursue online education and target such motivations (Lindsay & Morgan, 2016; Van Rooij & Zirkle, 2016; Veletsianos, 2016). However, the education sector does not give practical support to meet e-learners' expectations, which would contribute to students' positive experience. Therefore, it cannot be judged whether such expectations are met or not. Besides, previous studies emphasized researchers' predetermined measures of students' success instead of using measures based on the students' perspective. In this way, the students' perspective is ignored and neglected. In the past, researchers focused on the results of quantitative surveys to measure the students' perspective, which was wrong because it was based on the institute's perspective. In this way, the situations students face in online education are largely ignored by various researchers (Palmer & Holt, 2009; Parsons-Pollard, Lacks, & Grant, 2008).

Less attention to online educational opportunities from students' perspectives creates a negative impact on scholars and demotivates the students and suppresses their abilities. It also reduces the enrollment of students in higher education programs. Higher education bodies must provide guidelines to institutes that encourage them to involve students' bodies in the development of

curricula, policies, and procedures. In this way, students' retention in online education will be increased.

1.2 Co-Creation of Value: a New Model towards E-Learning Service Systems

The e-learning delivery system is continuously evolving; with the advancement of information technology (IT), new scientific and practical innovations are incorporated into the e-learning model. With time, student support services are realizing the role of consumer involvement in the value creation process. It is suggested that student engagement can play an important role in value creation practice, by making effective contributions to student support services provision, leading to an improvement or enhancement of the e-learning system.

Online students' satisfaction is related to online institutional services, such as a user-friendly portal, detailed study plan on learning management system (LMS), proper academic calendar (semester activities), an immediate reply to students' grievances, timely results declaration, and career counseling, which can also improve the students' academic experience regarding online education. In attempting to examine quality enhancement in the context of the quality aspect of e-learners' learning experience, online institutional services can be considered the core service product, while student support services refer to connecting activities that can enhance or worsen students' experience.

In general terms, student support services involve student participation in and involvement with the e-learning system, these services are provided to e-learners when they contact or register with service providers (most probably a direct contact through different instructional aids). Student support services may include, for example, faculty support, student advisory service, technical support, LMS support services, administrative support, evaluation and assessment support, course structure support, e-readiness support, library support, peer support, and accessibility support

(Essel, Tachie-Menson, & Owusu, 2018). The major importance of this research is to examine how student support services can contribute to a value creation system.

Adopting a philosophy consistent with service logic, also referred to as co-creation, this research examines whether and how e-learners participate in decision making in the delivery of student support services (Dollinger, Lodge, & Coates, 2018; Pires, Dean, & Rehman, 2015; Uden, 2011); the aim is to better understand the role and importance of e-learners' involvement in the value creation process, which ultimately affects customers' perception of their quality enhancement process, in the context of e-learners in Pakistan.

The term 'service' means all those activities and elements that contribute to e-learners' perceived value associated with student support services, where value is perceived by the consumer alone. In contrast with the perspective underlying conventional goods-dominant logic, perceived value is considered not to be the value embedded in the service products which customers buy, rather it is the value-in-use, which customers determine in the usage phase, as defined by the service logic philosophy (Pires et al., 2015). The center of the discussion is the issue of value co-creation vis-à-vis the notion of value-in-use; hence, it is arguably solely created and perceived by the customer, seemingly independently from the business.

Value co-creation is a value building system which ensures the existence of different economic actors and resource escalators (service providers: administration, different stakeholders as business partners, followers, and users), these service providers put effort into combining efforts to co-produce value (Callaway & Dobrzykowski, 2009).

The process of value creation comprises service providers and consumers. Service providers create value for consumers by including customer preferences in the design of 'service systems,' which is known as 'customer participation.' That is why service providers and customers are known as

‘creators of value.’ The same participation is expected from consumers of e-learning (Dam, Le Dinh, & Menvielle, 2020).

Related to service product creation, production, and consumption, customer participation is defined as the particular attitude, and the level of customer’s effort and association, whether intellectual, material, or emotional, that relate to the creation and delivery of service can take place (Ali, Rehman, Dost, & Akram; Rehman, 2015). Arguably, the consumer always tries to customize their service environment, such that co-creation of value is an essential issue for businesses because understanding consumers’ state of mind and identifying their requirements relating to their needs and wants may give businesses a competitive advantage (Humphreys & Grayson, 2008; Kelleher, Wilson, Macdonald, & Peppard, 2019).

Participation includes controlled measures on the part of customers to make sure that service is not only provided in a manner that fulfills their requirements, but also enhances the quality of the service delivery process and ensures value for them. Similarly, businesses can also control their customers by providing them with the opportunity to access and participate in their customer participation model or businesses can take initiatives to bring customers into direct interaction with them. In the same way, online educational institutes can also involve their e-learners in value co-creation (Čaić, Mahr, & Oderkerken-Schröder, 2019; Sarkar & Banerjee, 2019).

The quality of the value proposition creation process can be enhanced by motivating and encouraging consumers through participation. The participation determinants which may encourage or discourage e-learners to participate in the process of the service offering need to be explored (Friend, Malshe, & Fisher, 2020; Kelleher et al., 2019).

Nowadays, the biggest challenge for educational planners is the continuous improvement in the quality of higher education. There is also a rise in student demand for higher education because of

their professional requirements; this continuous increase in demand has opened the world for e-learning institutions. The old distance learning system without computer-aided learning was practiced for many years. However, after the advancement of information and communication technologies (ICT), students' interest in the traditional correspondence-based distance learning programs has changed. However, unfortunately, developing countries are still facing many hindrances in the execution of e-learning programs due to technological issues, awareness issues, and less market acceptability from employers. Pakistan is included in these developing countries where the statistics of higher education are still not satisfactory despite revolutionary education reforms. The Higher Education Commission (HEC) stated in 2019 that the quality of research and investigation of the higher educational institutes in Pakistan was extremely lower than the quality of research and investigation of other regions of the continent. Moreover, the available educational institutes were not in a position to accommodate all passing students due to their financial issues or their presence in remote areas. According to statistical data developed by the Federal Board of Intermediate and Secondary Education in 2019, more than 35% of students failed to reach university level education.

To support the environment of e-learning education in this region, the government established Allama Iqbal Open University in 1974. This university could be the first initiative for e-learning. Currently, there are more than 1.3 million enrolled students at this university. This university mainly focused on correspondence-based education. However, after the development of communication and technological devices, students' demand for computer-based learning has increased. The government realized the importance of an IT culture in the education sector because of the following reasons:

- Experts and qualified staff are deficient in schools, colleges, and universities.

- Conventional means of education require big infrastructure.
- The locality of most of the higher education institutes is in the urban area.
- The effective mobilization of human capital is also hindered by economic and societal factors.

In the year 2001, the first digital education university “Virtual University” (VU) along with the National ICT Research and Development R&D Fund was established to overcome these limitations. The basic purpose of this act was ‘education for the complete community of Pakistan’ as ‘lifelong learning.’ The VU became the first e-learning university in Pakistan; it provided education through modern ICT. VU came into being with government support as a Federal Institute. The clear mission of this university is to provide an exceptionally reasonable world-class education to determined and ambitious students around the country. Unlike other universities, this university is not concerned about profit but quality education. VU provides a platform for students through which they can get an education irrespective of their geographical location. Its class lectures are available on CDs, satellite television, and on the internet. The main purpose of this university is to enhance the number of graduates in the country. Moreover, it also resolves the issue of competent and qualified course instructors. The VU not only provides excellent courses to its students but also the students and teachers of other institutes within the country and outside the country. VU identifies the best instructors in the country, irrespective of their associations with a particular university, and requests them to consolidate and deliver its courses.

Bergmann, Muth, and Loerbroks (2019) observed the reasons for students' failure in their academic careers. They found that inability to pay fees, absence of interest, poor performance, disapproval from parents, family responsibilities, and lack of proper distance from school/institutions are the main or frequently occurred reasons. Intolerable social inequalities also create obstacles that

prevent the nation from developing into a more knowledge-intensive society. So, there is a need to develop an academic system that resolves all these issues that hinder the nation's development. In the past, higher education was given less importance than correspondence-based distance learning education due to obsolete structure and quality issues. However, higher education has now realized that education through the latest communication and technological devices is more convenient and affordable for students. Furthermore, quality issues can also be resolved through e-learning. In 2011, to facilitate distance learning education, higher education developed a separate "Directorate for Distance Education" in six public sector institutes of Pakistan as a pilot test. The purpose of these developments was to maximize the number of students in distance education.

These universities are:

- University of Karachi (Karachi)
- University of Punjab (Lahore)
- Gomal University (D. I. Khan)
- Bahauddin Zakariya University (Multan)
- University of Sindh (Jamshoro)
- University of Peshawar (Peshawar)

But, unfortunately, the proper policy documents are not available. At present, only two documents are available: "Guidelines on Quality of Digital Education for Overseas Students at the HEIs of Pakistan" and "Framework for Launching Distance Learning Programs in HEIs of Pakistan."

Ellahi and Zaka (2015b) stated that distance learning requires strong policy documents and governing bodies for the implementation and quality control of distance education. A rich policy framework regarding online education can develop confidence among all the stakeholders. For example, policy regarding the utilization of software and hardware for online education reduces

the ambiguity among the students and teachers, a transparent assessment policy increases the worth of the program, and academic regulations develop confidence among the scholars.

We live in a global village where students have a lot of information and choices for higher education. Now, for the survival of the institute, it is vital to understand the needs of the students regarding facilities, fee package, quality of education, and its acceptability in the market. Students' journeys in digital education along with conventional teaching cannot be successful without involving them in policymaking. However, students' perspectives and expectations of online education should not be compromised on the assessment mechanism of distance education. Furthermore, according to the Social Research Centre, existing measures of quality in online education focus on the institution and its teaching while students' perspectives are missing, this creates unrest among the students of distance learning.

1.3 Problem Statement

In Pakistan, the initiative of the e-learning education programs still needs to be addressed. Ellahi and Zaka (2015b) focused on the availability of a complete framework of online education through which efficiency and the effectiveness of distance learning could be evaluated. However, they believed that these policies need to be revised from time to time, although, initially, the policies will strengthen the institute's execution of e-learning programs. Furthermore, their research concluded that the American Association of State Colleges and Universities and State Relations Team recognized certain higher education issues relating to state policy, which have supreme importance for Pakistan as well. They also highlighted concerns such as enhancing institutional performance, tuition fee policy, academic regulations, government and higher education support to higher education institutions (HEIs), competency-based framework, immigration, campus security, customer protection including profit for institutes, and career development of the

workforce. The areas identified in their research became valuable for HEIs in their strategic planning. In their research, they realized that for distance education, policymakers must focus on several areas that are the fundamental requirements of e-learning, such as academic policies, IT infrastructure, training and development of instructors, employers' expectations, and students' perspectives. Furthermore, a good e-learning system must enhance the literacy rate of higher education in the country cost-effectively because it is the responsibility of the government to provide equal opportunities to their people so that they can develop their careers with updated knowledge and skill. Due to the rapid growth of a national and international platform of distance learning, a need has arisen to develop a comprehensive regulatory system of digital education that meets quality standards and twenty-first-century skills, which includes all the fundamental aspects of distance learning.

Akram et al. (2020) found that there is no doubt that the HEC of Pakistan and the Directorate of Online Education are responsible for the development of state policy on online learning and that without a comprehensive state policy, all institutes that are interested in the development of distance learning organizations cannot take any initiative. If they successfully develop a comprehensive distance learning framework, then it will increase students' enrollment in online education, which also increases the literacy rate of higher education in Pakistan. It has also been concluded that different policy framework measures create confusion among the stakeholders. However, it is necessary to identify the gap in the quality of education of distance learning from time to time, so that the system can incorporate all changes.

Kara (2020) highlighted that a defective or absent e-learning policy in emerging economies is the main reason for a variety of problems in distance education. The challenges are deficiency of IT resources for distance education, energy crises, lack of awareness of teaching pedagogies for

online education, lack of interest in digital education, and the cultural and socially strict boundaries imposed on young girls and mature women for the utilization of IT devices. Kara and Yildirim (2020) stated that there are three distinct stages of every policy, which are formulation, implementation, and evaluation.

In Pakistan, we can say that we are in the first two stages because we have an incomplete policy framework of distance education and, on the other hand, we are applying a policy of conventional face-to-face teaching to distance education. Besides, the evaluation stage is neglected. Kara and Yildirim (2020) also recommended that in the future a case study should be conducted on an institute that recently started e-learning.

The researcher selected the VU of Pakistan as a symbol of modern e-learning in Pakistan. The VU was established on 23 March 2002 and has spent ample time in developing and performing its services as a single federal-funded university to lead the economy to new heights of digitization. It is considered the most valuable institute in Pakistan; it provides modern distance education in the country and puts its full effort into providing quality online education to the citizens of Pakistan. There is no doubt that the meaning of quality differs between learners' and providers' perspectives; so, institutions must follow the general guidelines of higher education or accreditation bodies in setting their quality standards. These policy guidelines must also be available to students so that there is transparency between scholars and the institute.

The institute must collect feedback from its stakeholders regarding its academic role and operations so that the quality of e-learning can be improved by fulfilling the requirements of its beneficiaries. Unfortunately, most of the quality assurance criteria were developed from an institutional perspective and other stakeholders' perceptions, especially students, were ignored. It is important to consider both learners' and provider's perspectives in developing a framework of

distance learning. Tamim (2020) stated that customers' perspectives are superior to the organization's perspectives.

The researcher intended to work on the learner perspective of students studying at the VU of Pakistan. In her research, she analyzed how students visualize the facilities and support of an e-learning institute and how a Quality Enhancement Cell (QEC) can improve their processes and procedures.

1.4 Research Purpose

- a) To study the significance of quality enhancement in the learning experience of e-learners in terms of value outcome and student participation in service logic in the context of support services in e-learning. Here it is important to make clear that theoretical premise espoused in the thesis that there is no such thing as co-creation in the service logic. All value in use is solely created by the consumer.
- b) To explore student participation determinants in the context of online education.
- c) To investigate the quality enhancement determinants in e-learning education.
- d) To propose a model of e-learner participation in service exchange, and to observe its implementation in online education.
- e) To look at the relationship between the e-learner participation determinants, e-learner participation in student support services, and quality enhancement in the learning experience through the provision of student support services and the quality enhancement in the learning experience of e-learners.

1.5 Research Questions

RQ1 What are the determinants of student participation in the provision of student support services for e-learning students of Virtual University?

RQ2 What is the relationship between student participation determinants and e-learning students' experience concerning support services?

RQ3 What is the relationship between student participation in student support services and the quality enhancement process for e-learning students?

The research questions are examined by carrying out the following steps:

- a) Analyzing and consolidating the important support services for students in the literature review to gain a keen understanding of possible links between support services and online students' attrition in degree programs.
- b) Conceptualizing a basic model that places students' participation as a position of perceived quality indicator, which ultimately turns into a set of minimum quality standards that can help retain students in degree programs.
- c) Exploring the conceptual model by collecting primary data from the population of interest.
- d) Collecting primary data from e-learners as a population of interest by conducting interviews with them, and proposing a conceptual model.
- e) Reconciling the results with relevant literature and collected data from e-learners

1.6 Significance of Research

- a) Digital dimensions, openness in education, and the impact of e-learners' participation determinants are identified with selected frames of reference.
- b) This study will help in identifying the level of the positive match between student participation determinants and student support services.
- c) This study will help to identify the significance of quality enhancement in learning, in terms of value outcome, through student participation in e-learning in the context of online education service provision. Here, it is important to make clear that, contrary to the position

taken by many analysts in this area, the theoretical premise espoused in the thesis is that all value-in-use is created solely by the consumer.

- d) This is the first study that examines the role of student participation in the process leading to value-in-use. The study explores the student participation perspective which encourages online students to participate in the quality enhancement process and provision of student support services to improve their student experience. The strengths of the proposed relationships among the student perspective, the quality enhancement role, and the overall learning experience are also investigated. The study provides insight into quality enhancement, as a multidimensional construct, and the apparent links between learner participation determinants and other high-order constructs in unexplored areas of the online education system.
- e) The exploratory nature of the research, reliance on purposeful sampling, and cultural influences caution against the generalization of the results to other e-learning environments; however, the results of the study have significant implications for academic experts of the VU, as well as for the students themselves. Managers can benefit from gaining insights into how learner participation has the potential to provide useful information to improve learning environment provision, by designing strategies to meet the unfulfilled needs of e-learners. E-learners can also benefit by enjoying better support services and, potentially, an improved learning environment.

1.7 Methodology

A qualitative approach is used to investigate the research questions and to gather data. Case study techniques are applied which consist of in-depth interviews with academic expert and face-to-face in-depth interviews with e-learners ($n = 22$) about their perceptions regarding learner support

services provision and the quality enhancement in the student experience at VU. This research allows an in-depth exploration of the research area by identifying key themes from the literature and the interview findings. This exploration provides information that is subsequently used to develop further processes in research.

1.8 Limitations of Study

This study is based on ‘student support services as a quality enhancement in student experience’ from the e-learners’ perspective. Students and experts of the VU of Pakistan are the main partners for this study where students mean the students of VU. Its primary focus is on learner-centered student support services and does not take into account other performance evaluation standards necessary for online development and success.

This study examines research questions in the context of students’ e-learning in only one university in Pakistan. The generalization of findings to other e-learning institutions or other countries is not warranted.

The VU of Pakistan is a pioneer e-learning university in Pakistan; therefore, it is possible for those students who are not well aware of their rights known as student support services may not be able to participate in the learning experience of distance education, with implications for this study.

1.9 Chapter 2: Literature Review

The second chapter of the thesis presents a literature review; it evaluates quality, e-learning, and considers the role of e-learner participation in the quality enhancement process. Previous studies on quality enhancement and its impact on e-learning are also reviewed. Assessing the extant literature, the current study explores the impacts of quality enhancement by taking the student perspective of online education that can encourage students to start e-learning.

1.10 Chapter 3: Methodology

Chapter 3 identifies student perceptions and their experiences in the e-learning environment, underpinnings of the research, which lead to figuring out the methodology and the methods to use to carry out this research. It includes data collection, research approach, sampling method, ethical issues, a comprehensive data analysis, summary, and design of exploratory methods.

1.11 Chapter 4: Qualitative Data Analysis

Chapter 4 presents the qualitative research findings, with supportive quotes from in-depth interviews with students and expert. The findings are presented under five broad overarching themes. These are ‘first-year experience,’ ‘curriculum development and delivery practices,’ ‘administrative services,’ ‘blended learning,’ and ‘student facilitation centers.’ It presents an analysis of interviews with students and expert. First, the chapter describes some relevant topics of student participation determinants, and then analysis of data is presented according to the importance of information. Then, the results are provided. The data is presented according to the most important themes and concepts identified in the analysis of qualitative data.

1.12 Chapter 5: Discussion and Research Findings

Chapter 5 concludes the research project with a final word on the research problems and their outcomes. Further, it indicates the contributions of this study to marketing theory and suggests how well the outcomes can be generalized to other institutions and service industries. Practical implications of the study for managers are described, specifying the usefulness of understanding the contributions to quality enhancement and student participation, how students’ learning experience makes the learning environment more supportive and the student makes their own choice to join e-learning rather than classroom teaching. Limitations of the study are identified and are followed by recommendations for future researchers.

CHAPTER 2: LITERATURE REVIEW

2.1 Quality

We have seen in recent years an increasing interest and emphasis on quality issues in many aspects of society like manufacturing, public administration, and the service sector. Quality assurance is a well-known practice in manufacturing; that is, manufactured products are tested and then either accepted or dismissed based on well-defined requirements. A high number of errors mean production is not cost-effective. Quality management also gives rise to a need for quality assurance; that is, processes and procedures that can ensure that the manufactured products follow the defined quality requirements.

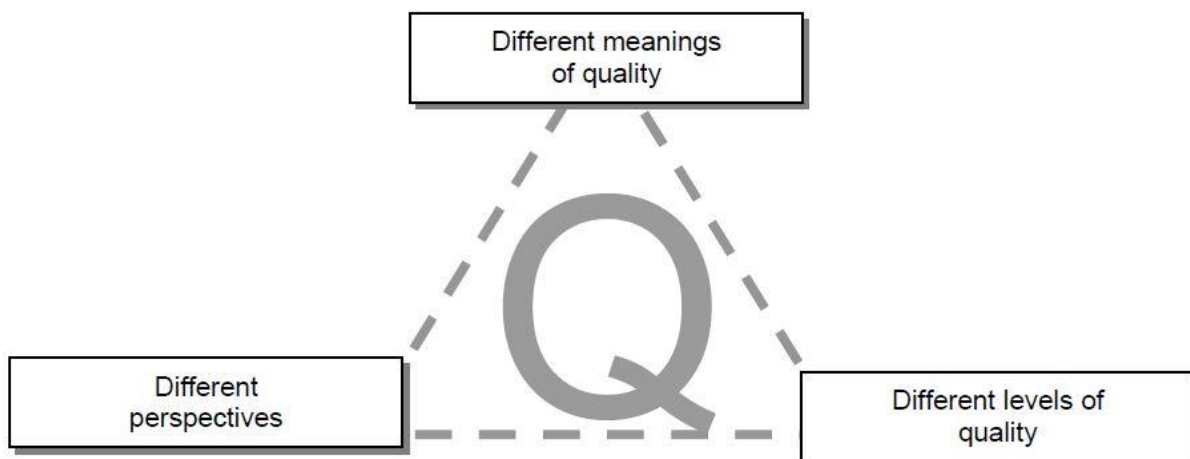


Figure 2.1: Multiple dimensions of the quality concept in e-learning (Ehlers, 2004)

In manufacturing, an organization that can document a successful quality control program would be able to more easily inspire and be trusted as a product supplier. That is one of the reasons for the issuance of national and international quality assurance standards. For example, it is illustrative that a two-stage cycle of accreditation process has been agreed on for institutions in Norway. This two-stage cycle program was the initiation of continuous improvement in quality and accreditation

programs. Organizations are expected to have an approved quality control program in place before being considered for an external assessment procedure (Di Nauta, Omar, Schade, & Scheele, 2004). The quality assurance principles were initially established in the manufacturing-oriented sector. Nevertheless, they are also predominantly used in service-oriented operations and primarily in public and private educational institutions. Quality control mechanisms are updated and expanded with a view to education and training. The use of quality criteria is also paired with concepts taken from the theory of total quality management. Total quality management control is generally linked with concerted effort to concentrate the whole organization and its mode of operation on the needs of the customers. Constant evaluation and improvement of the quality of an organization's product is known as the method of quality enhancement. The International Organization for Standardization (ISO) 9000 series has been a significant starting point since 1986/87 to achieve higher quality.

2.1.1 Quality Approaches

Numerous attempts have been made over the last few years to develop structures and procedures for quality control and quality assurance in the education sector. In the past, HEIs in Europe were required to ensure quality only through internal processes, but since the mid-1980s, some pioneering countries, the UK, France, and the Netherlands, formed a structured quality assurance body (Srikanthan & Dalrymple, 2003).

The integration, openness, and mutual recognition of higher education processes in Bologna have driven the creation of national accreditation bodies as well as international collaboration on quality assurance. The Danish Institute of Assessment describes 34 Quality Assurance Agencies in 23 countries. The rise in accreditation bodies was drastic, for example, in 1998 only six European countries had any kind of accreditation systems, but in 2003 all but two countries had adopted

accreditation processes related to HEIs and their programs. More than 140 approaches to be affiliated with the International Network of Quality Assurance Agencies in Higher Education (INQAAHE) were made, and each of these organizations follows the INQAAHE approach to quality (Jingura & Kamusoko, 2019).

Although there are abundant articles and research on solutions to quality, the majority discuss conventional educational environments and they seldom include recent developments in e-learning education. Nevertheless, as we can see below, there is also a range of project events, organizations, and studies that relate to professional e-learning solutions and distance education. Rebolledo-Leiva, Angulo-Meza, Iriarte, González-Araya, and Vásquez-Ibarra (2019) stated that performance approaches can be described primarily as: input-oriented models focusing on the resources used to achieve targets, output-oriented models that retroactively analyze to what degree goals are achieved, process-oriented models of ability within the organizational framework, and participant-protective and demand-oriented models that provide product test results or criteria for a response-associated valuation of a product in the marketplace. Kalinga (2019) stated that students' input is necessary for all phases of the student life cycle whether they relate to education or academic administration.

2.1.1.1 Characteristics of Quality Systems

An analysis of the literature yielded a set of elements that characterize the majority of the quality systems analyzed, and which, in my view, should form core characteristics of any quality system for e-learning. As such, the set of elements can be seen as both useful for a high-level analysis of the field of quality education and as a framework for the improvement of the quality systems themselves. Thus, quality systems are:

2.1.1.1.1 Multifaceted

Systems use a multiplicity of measures for quality, and will often consider strategy, policy, infrastructure, processes, and outputs to come to a well-rounded view of holistic quality.

2.1.1.1.2 Dynamic

Flexibility is built into systems to accommodate rapid changes in technology as well as social norms. For this reason, they rarely refer to specific technological measures, but rather concentrate on the services provided to users through that technology.

2.1.1.1.3 Mainstreamed

While all the quality tools surveyed aim at high-level quality improvement, they are intended to trickle down throughout the institution and be used as tools for reflective practice by individual members of staff in their daily work.

2.1.1.1.4 Representative

Quality systems seek to balance the perspectives and demands of various interested stakeholders, including students, staff, enterprises, government, and society at large.

2.1.1.1.5 Multifunctional

Most systems serve a triple function of instilling a quality culture within an institution, providing a roadmap for future improvement, as well as serving as a label of quality for outside perspectives. Furthermore, the majority of systems reviewed are designed to complement the dominant, institutional self-assessment-based model of quality assurance; thus, integration of quality assurance with that of its conventional provision is in most cases a practicable option. Whatever the chosen or used quality model, whether existing or to be developed in the future, the above-mentioned characteristics have to be considered.

2.1.1.1.6 Contestable/Debatable

As there are many stakeholders with a variety of interests, and as quality is multifaceted and so on, there are many opinions on what constitutes bad, good, and/or excellent quality. While the reviewed systems are designed to provide a structure for objective assessment of quality, it is difficult to remove all elements of subjective judgment, as quality used to be described as being ‘in the eye of the beholder.’ Those systems that invoke peer review and seek to form a community of users assist in the development of shared perceptions of quality levels.

2.1.1.1.7 Generic Versus Content

There is a tension between whether quality can be based on generic dimensions or whether it is content/subject-based. In the context of open and distance learning, the delivery and support mechanisms must have parity with academic rigor if effective teaching is to be delivered. Hence, local contexts of culture, language, and infrastructure will influence assessments of institutional quality.

2.1.1.1.8 Open Culture/Practice Core of Culture

The way we measure and look at quality will surely differ in emerging open cultures and practices in changing learning landscapes and unbundling contexts and with increased personalization. Flexible systems for quality assurance offer better prospects for adaptation to changing practice and effective operation of improvement strategies will facilitate innovation.

2.1.1.1.9 Personalization

Personalization of learning and education is more and more valued, and there might be tensions with what that means for quality and quality dimensions, as these are often set from the organization’s points of view. As Bates (12/01/2015) phrases it: “we will not talk about online

learning shortly (2020). The future is about choices and this gives consequences for students and learners, for faculties and instructors, for institutions, as well as for governments.”

Accessibility, related to individuals with special needs, is strongly related to personalization, and this feature needs to be addressed in any quality model, if not it is a gap in quality enhancement and quality assurance.

This set of characteristics might have an impact on how quality in e-learning and online learning are discussed.

Target Groups: Quality Preferences

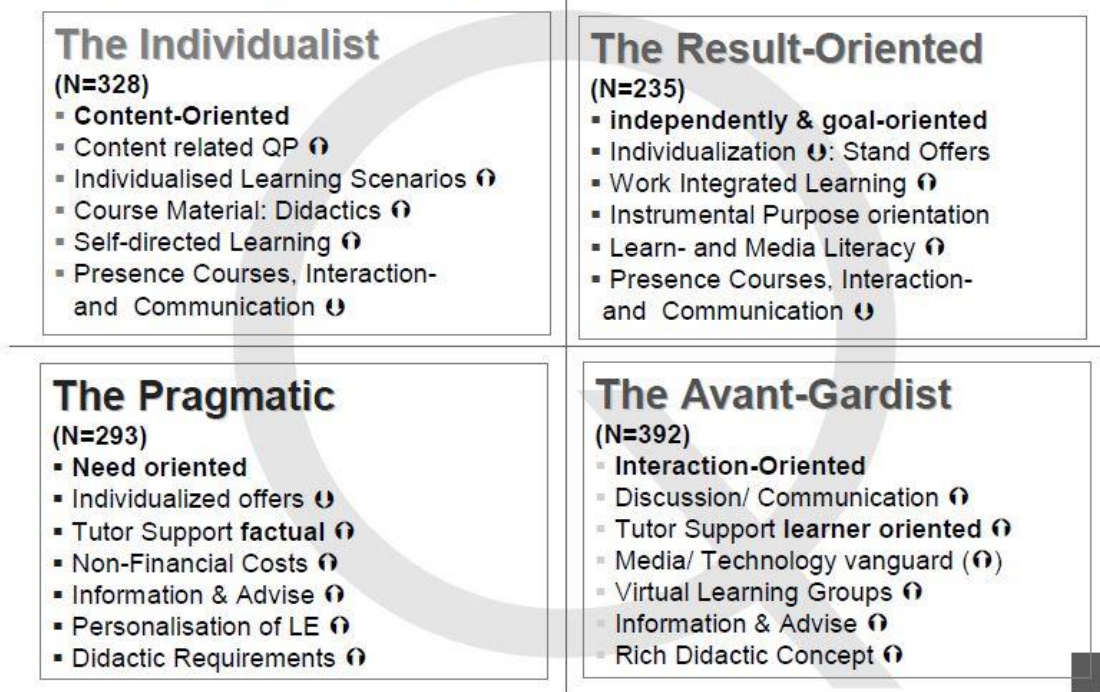


Figure 2.2: Four quality specific target groups (Ehlers, 2004)

2.2 Quality in Education Field

Quality is generally defined as 'fitness for purpose' with user/customer needs, which implies that quality depends on the subject view as to what is the intent of that phenomenon (Ramulu & Murhtyr). The customer is not always easily identified in education. For public education the government pays, the student is the primary user and employers are secondary users. Quality,

therefore, is a decision of value perceived by various stakeholders, government, teachers, staff, students, employers, and so on. On the other side, we need to have a strong notion of what it is to ensure and evaluate efficiency. Therefore, the purpose and requirements should be specified by the major stakeholders, not alone the business executive. Esen, Bellibas, and Gumus (2020) stressed this diversity and pointed out three dimensions of quality in higher education, for example, the meritocratic (conformity of the institution to professional and academic norms with the academic profession as a reference group), social (the degree to which institutions meet the needs of significant collective constituents) and individualist institutions that encourage students' personal development.

Green (2019) stated a specific interesting view regarding the emphasis on the individualistic aspect of e-learning quality, arguing that the learner's perspective is probably the most important of all the dimensions and aspects of e-learning quality. Students are successful in learning online, and their experiences are typically pleasing. Discussion and contact with teachers and peers are adequate and the real experience of learning corresponds to expectations. Satisfaction with facilities (advising, registering, obtaining materials) is at least as strong as it is on conventional campuses. Orientation is adequate on how to read online. Outcomes are important for career, academic, and professional advancement. Training differs from other goods in that schooling (or learning) is not a commodity that the customer buys, "... learning is instead a process they have to undergo on their own". Bernath (2018) stated the subjective quality determinants of e-learners can be grouped into quality areas: tutor support, collaboration, technology, cost expectations-benefits, didactics, course structure, and information transparency. Students are classified into four different classes according to variations in interests: individualistic learners, result-oriented learners, realistic learners, avant-garde learners (see Figure 2.2). Some relevant terms are quality

monitoring, quality assurance, quality management, and quality assessment. In technical environments, quality control is defined as: “the organizational techniques and activities used to satisfy quality requirements” (Arashpour et al., 2020). Seyfried and Ansmann (2018) explained that concerning (higher) education the concept also includes the quality management policy for the state (now clearly demonstrated by the Quality Assurance Agencies developed in most European countries).

2.2.1 Measuring Quality in E-learning

Virtual learning has an intractable image as a less successful means of teaching compared with face-to-face training (Allen & Seaman, 2011; Hanson, Andersen, & Dunn, 2020; Herman, 2004; Shanahan & Jones, 2007; Snart, 2010). The cure for this bad image is quality control. Quality control aims to validate the positive learning of students (Berthod et al., 2020; Gold & Holodynski, 2017). A key measure of student performance and learning is student satisfaction. A well-designed online course using good practices is likely to encourage success and satisfaction among students (Rueda, Benitez, & Braojos, 2017; Shahsavari & Sudzina, 2017; Strelan, Osborn, & Palmer, 2020). Faculties are skeptical about online teaching due to the lack of experience and information on best practices in instructional design, the additional workload required to create an online course, and the belief that online learning is less effective than face-to-face learning (Ambreen, Hina, Qadri, & Anjum, 2020; Kleisch, Sloan, & Melvin, 2017). The Quality Matters rubric, a quality assurance method and process created by and for a faculty, is a researched set of guidelines based on best practices to help a faculty design its online courses (Jenkins, 2020). The exponential growth of online education coupled with its enduring poor credibility has spurred the educational community to pursue quality control as a tool for enhancing and ensuring successful learning (Esfijani, 2018; Kebritchi, Lipschuetz, & Santiago, 2017; Khalili, 2020). Evidence showed that improving student

satisfaction by enforcing Quality Matters standards in an online course will encourage widespread adoption of Quality Matters by a faculty and help solve the issue of persistent bad credibility currently occurring in online education.

2.3 Issues in Online Education

2.3.1 Background

Greenhalgh, Rosenberg, Willet, Koehler, and Akcaoglu (2020) stated that online education is asynchronous and characterized by the interaction between students and teachers with a formal and organized platform of discussion on a subject matter. With the downturn in the economy, the demand for online education and courses has increased in all institutes (Goodman, Melkers, & Pallais, 2019; Palvia et al., 2018; Uijl, Filius, & Ten Cate, 2017). In the USA, higher education cannot afford on-campus education due to increased prices of infrastructure and other facilities and the solution to this issue is e-learning (Gazza & Matthias, 2016; Kumar, Kumar, Palvia, & Verma, 2017; Palvia et al., 2018). Wavle and Ozogul (2019) pointed out the institutes of first-generations and those who have low incomes are progressing at a faster rate due to enrollment in online courses. Hew, Hu, Qiao, and Tang (2020) aimed at exploring the quality of online courses provided by institutes in South Korea and adult learners' perspectives on these courses. Using factor analysis, the study found from an adult learners' survey that there are five dimensions through which the quality of online education can be measured: 'First-year experience,' 'Curriculum development and delivery practices,' 'Administrative services,' 'Blended learning,' and 'Student facilitation centers'; students showed more participation when they were aware of the tasks they would be doing on their online course.

With the flow of time and increase in the use of technology, the demand for online education has increased worldwide (Barnes, 2020). The reason for this increase in demand is that online

education provides learners with more benefits as compared to the traditional way, especially for post-secondary learners. This e-learning also encapsulates a range of learners including retirees, disabled students, fulltime workers, and caregivers of children; all these can engage in online education because of time and space flexibility and convenience in online learning (Ahmed, 2018; Scarpina, 2016).

2.3.2 Student Issues in Online Education

With time, space, flexibility, and convenience, online education offer degrees and other courses that have the minimum possible duration and fees that are comparatively lower than those of traditional learning; these factors appeal to learners and encourage them to take part in online education (Aithal & Aithal, 2016; Cross & Whitelock, 2017; Kroll, Lalli, Reed, & Stephens, 2016). Gemin et al. (2018) in their studies found that a reputable online course from a well-established institute faced an almost 40% to 80% dropout. Chan, Trueger, Roland, and Thoma (2018) concluded that there is a gap between the online and traditional ways of learning. Uddin and Johnson (2019) determined that students' retention is a major indicator of a university's performance and should be considered the most important element in the development of online education policy. Chemishanova and Tita (2020) believed that along with other traits, student satisfaction is an important factor that influences the learning process; for example, in a survey of 700 students enrolled on an online computer skills course, they found that student satisfaction had an important function in the learning process. Nordmann et al. (2020) also explained that learners' satisfaction is of core importance in the online learning process; along with this the persistence of an institute can be measured with retention of the learners. Researchers have shown in many studies that e-learning mainly depends on the responsibility and motivation of the learners (Al-jazairi, Hamtini, & Rajab, 2018). Kulak and Guiney (2012) stated that in the process of e-learning,

students' retention and their cognitive skills are the most important element of a successful e-learning process. On the other hand, if students are not satisfied and comfortable with the approach, their frustrations will ultimately lead to the failure of the system. A survey has shown that lack of engagement, poor time management, a non-serious attitude towards study, and inadequate institutional support are the most significant reasons for the students' attrition. De Rosa and De Oliveira (2020) determined that students' retention is based on their affiliation with the institute. Another substantial factor that influences the learners is their association with peers and connection with staff members (Brooms & Davis, 2017). Other researchers explained that students' choice for further education is based on their socio-economic status, if a student has a sound financial background then he/she prefers traditional education (Dilnot, 2016; Goren & Yemini, 2017). Salter (2012) suggested that online programs are suitable for learners only when they choose the institute carefully. He also concluded that students' burden will be increased due to managing e-resources, time, and study material. However, there will be many more resources and options in an online learning process (Mula & Cheng, 2019).

Sánchez-Elvira Paniagua and Simpson (2018) are of the view that the main cause of students' dropout in online learning is a lack of teachers' training and the use of an inappropriate approach to the distance learning system. Most researchers believe that students' retention or dropout is not only due to online education or conventional education. Students' retention is based on multiple factors like financial resources, time, area of interest, and their growth in a career (Bean, 2005). Astin et al. (2012) concluded that retention is significantly affected by the context of the learner; the context includes institutional setting, the social background of the learners, students' previous academic record, and other demographic factors such as gender, age, and experience with online learning. There is still the question of retention measurement and its number; there are many

factors, such as measurement units, reliability, the procedure of data collection, sample selection, definitions and time frames (Astin et al., 2012). Similarly, I cannot agree with the success of the learners as a decisive element as it is associated with persistence. Astin et al. (2012) stated that all these terms are interchangeable and used similar terms to be measured. Nguyen, Rienties, Toetenel, Ferguson, and Whitelock (2017) stated that persistence and retention are based on progressing and passing through the life cycle of the online learning process. In their view, the online or distance learning educational institute or organization should consider adjustments in line with the culture, behavior, expectations, financial status, and other needs of the stakeholders.

2.3.3 Faculty Issues in Online Education

Teachers who take an online course or are involved in the online education process are of the view that the traditional way of teaching is superior to the online education system (Sathish, Sornaganesh, Sudha, & Chellama). Teachers stated that it takes more time to prepare for an online course and the format takes time too (Gacs, Goertler, & Spasova, 2020). On the other hand, most of the teachers recommended taking an online course as it is considered superior in terms of access to knowledge (Albrahim, 2020; Tsai, 2020). Albrahim (2020) stated that teachers are afraid about online education as it may take away their role in teaching; this fear is based on their view that the traditional way of teaching is teacher-centered and teachers play a significant role. In addition to this, online learning, apart from experience, requires genuine research in the field (Latchem & Jung, 2012). Only in this way can teachers meet the needs and capacities of the online/e-learning system because research helps in improving methods and can provide solutions to challenges faced by individual teachers (Latchem & Jung, 2012). Teachers may be able to handle a good amount of students in online classes, but it remains difficult to develop socializing in distance and online learning as compared to traditional teaching where it can be done with comparative ease (Akyol

& Garrison, 2011; Alzahrani & Ghinea, 2012). Keengwe, Onchwari, and Agamba (2014) concluded that when teachers are unable to shift their teacher-centered/lecture-centered approach to an online learning approach, it remains difficult for the teachers to cater to the needs of the learners and e-learning process. These factors, along with a lack of training sessions and institutional support, and an absence of a pedagogical approach, lead to poor performance and perception of online education.

2.3.4 Government Issues in Online Education

2.3.4.1 Reservations Towards Quality Assurance in Education and E-Learning

Over the last two decades it has been observed that higher education departments and institutes are working on improving the quality of online education (Alexander, 2000; Harvey & Williams, 2010; Morey, 2004; Roblyer, McDaniel, Webb, Herman, & Witty, 2010). This is a positive step but also leads to debate about how the relevance between higher education and institutes will be maintained in the online education system. The some experts has focused on different concerns regarding academic freedom, and the factors which may affect the process of innovation from the perspective of the institutes, however, they are well aware of the benefits of online education, therefore, institutions and higher education need to work collaboratively to make it better (Hekkert, Suurs, Negro, Kuhlmann, & Smits, 2007; Stephens, Hernandez, Román, Graham, & Scholz, 2008). The other concern is quality management in the area of online education. Although higher education and online teaching institutes are working continuously to improve quality management, the question remains, how far can these institutes and distance learning go in improving quality management of online courses? (Govindasamy, 2001; Manatos, Sarrico, & Rosa, 2017). Although the institutions and higher education work toward legislation, public accreditation, and improvement of the system, negative issues and experiences are still reported in the area of online

education (Guri-Rosenblit, 2005; Phipps & Merisotis, 2000). Some researchers stated that maintaining average quality in online education can have a negative impact and there is a need of the comprehensive understanding of online education (Coe, Aloisi, Higgins, & Major, 2014; Higgins et al., 2016; Slavin, 1996). It is understood that over time, criteria and quality management in the field of education keep changing, the same is probably true in the area of online education; thus, with the improvement of technology and the use of such tools in the field of pedagogy, and changes of criteria and of attitudes over time, it becomes difficult for institutes to maintain specific guidelines for the field (Ljoså & Rekkedal, 1993). These processes of quality review serve various purposes, such as educational accountability, public funds use, quality assurance and development, and information exchange with the customers, and consider the stakeholders in the whole process (Gascó-Hernández, Martín, Reggi, Pyo, & Luna-Reyes, 2018). The quality review process engages a large range of audiences for quality; these include employees of related organizations, students, institutes that are providing online education, higher education stakeholders, government officials, and other relevant and interested stakeholders (Beerrens & Udam, 2017; Hazelkorn, 2008; Trowler, 2010). The quality review process can vary according to the audience and purpose.

2.3.4.2 Challenges and Issues in the Quality Review of Distance Learning

To understand the challenges and difficulties in online and distance learning, data are collected from multiple sources, these sources include quality reviews, commercial and corporate departments, cross-border education, and from the relevant stakeholders (Rowe, De Savigny, Lanata, & Victora, 2005; Whittemore & Knafl, 2005). These are the main organizations from which data can be collected for accreditation purposes. The chief of the Council for Higher Education Accreditation in his research article of quality reviews stated that the main challenges and difficulties in the area of online education are associated with values, policies, and practices

that are site-based creations (Baccour et al., 2020). Hence, in the process of quality review, organizations have added site-based tasks including visiting campuses, examining classrooms, touring facilities, and, in general, scrutinizing the resources, and, in particular, the academic community's capacities in the environment of learning and teaching.

Gutierrez, Young, and Jordan (2019) stated that distance education is a set of multiple layers that are associated and inter-linked that include site-based, face-to-face, and various other educational environments. According to Eaton, there are numerous challenges and difficulties in the accreditation of online and ICT-based distance learning classes (Kiggundu & Moorosi, 2012; Mayne, 2019). In computer-mediated classrooms, teachers and students are involved electronically and they are in a space-free environment; there arises a serious issue of communication between the students and the teachers in terms of mentorship, advising, and other integral services, such as library services, in an online teaching-learning environment (Aithal & Kumar, 2016; Butcher, Davies, & Highton, 2019).

The role of teachers also changes in an online education system as compared to traditional teaching. In the traditional way of teaching, the teachers play an authoritative role, whereas in online education the role is more of a facilitator (Butcher et al., 2019; Maseleno et al., 2018). Distance education also influences lesson planning and curriculum development because it requires a proactive curriculum.

Kilgore and Weaver (2020) determined that in the accreditation of distance learning, US higher education faced three main challenges. The first challenge is of an alternative classroom, it is obvious that teaching in the traditional way is different; therefore, it is a challenge to create a new learning environment (Campbell, 2020; Lee, Lee, & Zeidler, 2020). The second challenge was higher education accreditation, including online consortia of institutions and corporate

universities. The third challenge was training, teachers are trained to teach face-to-face classes and the training of teachers to meet the shift to distance learning serves as a challenge.

Bhatnagar and Bhatnagar (2016) reported that Indian higher education faced similar issues in online and distance learning, including general and specific issues. The issues in developing countries are different; most of these countries face issues in infrastructure and resources. Authors also found the traditional concerns of teachers about distance and online teaching (Bhatnagar & Bhatnagar, 2016; El Mhouti, Erradi, & Nasseh, 2018), including face-to-face conversations, IT support issues, low enrolment, and, mainly, students' perceptions of online and distance learning. However, in recent years, significant progress has been made in the area of online education, but there is still a need to consider some important issues and differences between the online and traditional ways of teaching (Namaziandost & Nasri, 2019). Only in this way, can the perceptions and challenges of concern regarding distance and online learning be minimized. The role of the teacher in traditional and online teaching differs, the management role also changes when we shift from traditional to online teaching, learning and library resources also need to revise their functions and, lastly, the medium of learning changes (Gil-Jaurena & Domínguez, 2018; Simonson, Zvacek, & Smaldino, 2019). Some specific questions will help the institute improving distance learning:

- What are the significant administrative services affecting quality in distance learning?
- What is the notion of access and how do we define the quality of access in distance education?
- What are the best ways of improving access, the quality of access, and retention?
- How is a good learning experience defined and concerning whom or what?
- Will the costs of the technology involved be detrimental to access?

Other sources from which teachers, institutes, and higher education can get help in the area of online and distance learning are international and national research conferences. Kintu and Simon (2019) focused on the solutions to the problems faced by developed and progressing countries. Caniglia et al. (2017) and Salonen and Siirilä (2019) pointed out that cultural diversities can be minimized in e-learning and how quality reviews can be improved.

2.4 Quality Enhancement in Student Experience

In higher education, quality enhancement is considered a planned process that needs to be adopted where changes are required. This is a continuous improvement cycle which needs to be promoted to make the student learning experience better than before (Drinka & Yen, 2019; Fagnani & Guimarães, 2017; Mohammed, Alotibie, & Abdulaziz, 2016; Serrano, Dea-Ayuela, Gonzalez-Burgos, Serrano-Gil, & Lalatsa, 2019; Tichnor-Wagner, Wachen, Cannata, & Cohen-Vogel, 2017). To bring effectiveness to the learning experience of e-learners, the higher education department adopts a deliberate process of ‘change’: a process that leads to continuous improvement (Antony, 2018; Shah, Cheng, & Fitzgerald, 2017). Primarily it applies to the learning process and matters of teachers’ concern, but it should be acknowledged by the strategic partners of the institution because institutional academic policies and guidelines are issued in strategic meetings or by strategic shareholders (Carlucci, Renna, Izzo, & Schiuma, 2019).

Gvaramadze (2008) first described the term quality enhancement, a change at different levels of the educational process. The examination of a quality enhancement policy is divided into three basic steps: aims, objectives, and outcomes. After taking the initial step, the second level is of incremental changes which help the process of quality enhancement for e-learners become more efficient (Cudney, Venuthurumilli, Materla, & Antony, 2020). At the third level, the quality enhancement of e-learning practices is continuously done in new ways (Jackson, 2003). Jackson

(2003) further reported that the most deep-seated types of quality enhancement for e-learners include re-formation through re-direction, re-conceptualization, and re-examination of existing quality enhancement practices.

Outcome-based quality enhancement is more complicated to carry out. For effective implementation of quality enhancement for e-learners, there is a need to identify the factors that have a positive and negative impact on the quality enhancement mechanism (Namirembe, 2019; Sarker, Mahmud, Islam, & Islam, 2019). There is a growing interest to do more research on quality enhancement for e-learners; there is a dire need to focus on its structure and processes, and on the targets that can be achieved through quality enhancement (Farhadi, 2019; Tran, 2019; Yang, 2019). Therefore, it is explored how a quality enhancement approach can be used to enhance the quality of e-learning and improve the academic structure. What type of quality mechanism can be established to support, engage, and monitor the staff? (Mpungose, 2020; Sagurupilla, 2020). To engage the staff in quality enhancement activities, there is a need to motivate and encourage all the staff connected with students (Allan et al., 2002; Pittilo & Hutchinson, 2002; Andrea & Blackwell, 2005).

For the promotion of quality enhancement in the e-learning institution, there is a need to work on developing a culture of quality, setting the behaviors of staff by taking strict actions through monitoring and control which support quality enhancement in student experience (Laskaris, Heretakis, Kalogiannakis, & Ampartzaki, 2019; Okfalisa, CH, & Pranggono, 2020). No empirical evidence is found which makes the researcher believe that indicators made any contribution to the quality enhancement of e-learning of any e-learning institution (Faisal, Fernandez-Lanvin, De Andrés, & Gonzalez-Rodriguez, 2020). There is a need to work on quality enhancement for e-

learners due to the lack of empirical work and incomplete understanding of most of the factors that can have a positive impact on quality enhancement for e-learners.

It is anticipated that research which investigates the nature and the reality of quality management keeping in view the academic staff of an institution will contribute greatly to structuring the quality culture of that institution (Gubiani, Cristea, & Urbančič, 2020; Teo, Kim, & Jiang, 2020).

No doubt, it is also a fact that faculty views depict the true picture of organizational culture and its practices because these are the teaching staff who are well connected with the customer (i.e. students) and if they have direct interaction with the e-learners, then any missing or incorrect delivery of service will be discussed and e-learners can complain (Bawack & Kamdjoug, 2020; Sarker et al., 2019). It is the responsibility of teaching staff or the staff directly connected with the students, to convey any complaint to the head of the department and try to get it resolved for the sake of the students (López-Pernas, Gordillo, Barra, & Quemada, 2019).

Quality enhancement is a completely subjective approach: “Quality enhancement is a subjective approach and a perception of the eyes of the viewer” (Jomnonkwao, Champahom, & Ratanavaraha, 2020). Many times when an e-learning institution is on the journey of quality enhancement by taking steps to enhance institutional performance parameters and converting them into successful policies considered to be part of the normal course of institutional policies, they will be measured as a quality enhancement procedure. Middlehurst (1997) stated that changes in different levels of institutional performances and evaluations of these performances by different research studies are termed as quality enhancement.

The process of quality enhancement must be divided into different phases of the change process. The levels of the change process vary from basic to complex level. A basic level of quality enhancement is principally linked to learning and teaching, making things better, being responsive,

and value addition, keeping in view the perspective of learners (Mueller, 2020; Perso & Hayward, 2020; Scott, 2020). On the next level, things go on improving to make the experience of e-learners better (Herodotou et al., 2020; Perso & Hayward, 2020). At this level, students have collaborated with other students, academic staff, and other departments of the university, and changes have been made to the processes and strategies of institutions to improve things. The Quality Assurance Agency for Higher Education (QAA, 2007) reported that to bring quality enhancement into an institution, there must be powerful strategic planning and planning management, which in turn leads to enhancement in the student learning experience.

2.4.1 Quality Enhancement Perspectives

2.4.1.1 Learner Perspective

The learner perspective asks you to examine your practice and delivery from your learners' perspective (Noble et al., 2020; Owens, Sadler, Barlow, & Smith-Walters, 2020). It includes the expectations, requirements, and participation of learners in the process, which is designed to be considered contextually within a tertiary organization (see Figure 2.3).

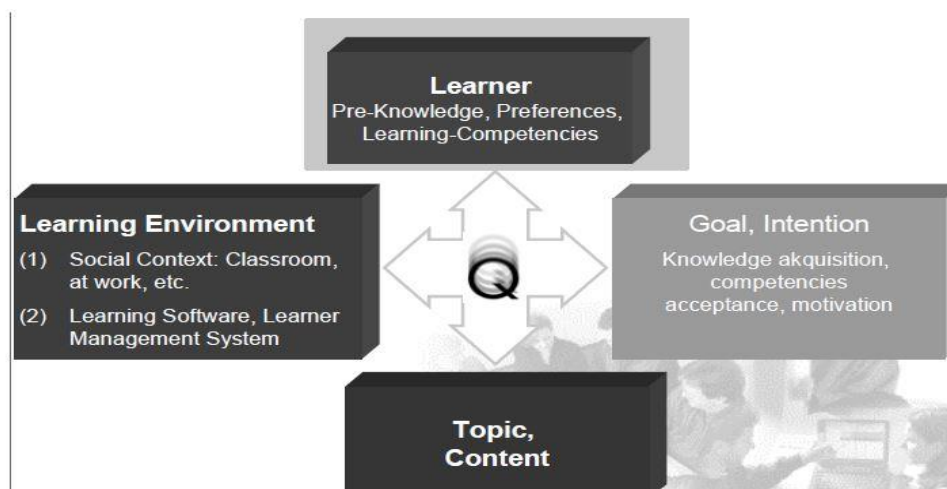


Figure 2.3 The learner position in a learning environment (Yercan, Fricke, & Stone, 2005)

2.4.1.2 Learner Perspective: Customer Participation in E-Learning

Promoting the ideas underlying participation, customer participation is defined as the degree to which the customer is involved in producing and delivering the service (Cavendish, Morris, Chapman, Ocasio-Stoutenburg, & Kibler, 2020; Chandra Handa, 2020; Salvador, Paetz, & Tippetts, 2020). Participation involves voluntary actions on the part of consumers to ensure that the service is not only delivered in a manner that meets their needs but also enhances the quality and benefits of the process (Aprile & Knight, 2020).

2.4.1.3 Connecting with Students

‘Connected with students’ refers to the importance of student participation in the quality enhancement process from when the student is admitted to the e-learning institution until the day he or she completes education (Atif, Richards, Liu, & Bilgin, 2020; Kogetsidis, Ktoridou, Epaminonda, & Karayiannis, 2020). Strategies used to improve the quality of e-learners’ participation also contribute to a superior student experience.

Academic staff acknowledges that student participation is important to achieve the benefits of quality enhancement of e-learning (Becerra-Alonso, Lopez-Cobo, Gómez-Rey, Fernández-Navarro, & Barbera, 2020). The main reason to engage the students in the quality enhancement process is to make sure of their participation in the decision-making process of the institution.

Alamri, Lowell, Watson, and Watson (2020) stated that to give students a place in the decision-making process, by making sure they participate in the quality enhancement process, is to take students forward as important stakeholders or as partners in the twenty-first century (Gilakjani & Rahimy, 2020).

Different approaches support the role of the student as a partner, co-creator, and stakeholders, such as participatory approaches to learning, learning technologies, problem-based approaches, action

learning, and collaborative approaches. This is widely endorsed by some affirmations of such a variety of teaching and learning approaches (Ma, Hwang, & Shih, 2020; Ryan, Henderson, & Phillips, 2020).

There is also a need to develop appropriate feedback skills among the students by peer assessment which can make a useful addition to student engagement and their successful learning process. For future consideration, higher education always tries to improve the level of satisfaction among students by giving special attention to their issues. When students first start experiencing self-judgment, and monitoring and control mechanisms in the environment where they are studying, they can truly reflect and be able to do self and peer assessment to get and integrate opportunities, which give them a competitive advantage over other students as well as other institutions (Bailey, 2020; Rodriguez, Hunter, Scharlott, & Becker, 2020). Both objective and subjective evaluations, if properly used, can bring a true reflection of the studied institute.

An organization contributes to the training of good instructors or lecturers by making them understand that they are the people who can truly contribute to the quality enhancement process because they can better understand the students and their requirements (Barkley & Major, 2020; García-Moya, Brooks, & Moreno, 2020). If they play an effective role by solving small misconceptions on their own and bringing critical issues to the knowledge of the administration, and suggest a solution rather than relying on institutional quality enhancement approaches, then e-learners can take the best advantage of this system.

Researchers believe that without student engagement, positive enhancement in students' experience is not possible. García-Moya et al. (2020) held the view that higher education departments need to acknowledge their students as customers rather than as partners in the learning community, which is why the concept of service logic models is becoming popular in the learning

community and new research studies are now discussing quality enhancement in terms of co-creation rather than previous approaches.

Connecting to student ideology starts from admission and continues until the passing out of e-learners. E-learning researchers first focus on prospective students, communicating with them, and try to find what makes the induction period or first-year experience effective, what gives support, and what promotes cohesiveness in the learning community. The importance of the first-year experience cannot be denied by e-learning researchers and policymakers; they need to understand and offer support where needed but within the institution's limit. There is a need to respond to the needs of students in the first year because they have never studied without a teacher or a controlled academic department (Martens, Wolfhagen, Whittingham, & Dolmans, 2020). E-learner researchers focus on key performance indicators, like employer involvement and his/her feedback, the role of alumni, and whether graduates are fit for their practical life (O'Leary, 2020).

It is now a routine activity for a quality assurance department to conduct feedback and get student representations. In recent years, many e-learning institutions have recognized the importance of student involvement in the quality enhancement process via student experience (Al-Fraihat, Joy, & Sinclair, 2020). Quality enhancement through student feedback and listening to student voices have been connected with the professional development of instructors and lecturers who interact with students and, ultimately, improve student experience (Poce, Amenduni, Re, & De Medio, 2020). On the other hand, in this respect, many representations regarding student protections, their rights, and case studies have been written. In this process, e-learning policymakers and institutional major stakeholders face some challenges: meeting e-learners' expectations, sufficient preparation to focus on student level of understanding, and leading them to their future path of success. Hasan

and Bao (2020) found that training student representatives play an important role in building their personality which can create a difference what are the rights and duties of being a student.

It is identified that the most significant change that arises in the quality enhancement process is due to the perceptions of students' views and their expectations towards quality enhancement procedures and strategies (Gubiani et al., 2020)

2.4.1.4 Connecting with the Students

Hew et al. (2020) revealed that feedback is a primary source of information regarding an institution's environment along with procedures enacted for student satisfaction; this is why students are asked to give their reviews on the provision of student support services. To know the level of student satisfaction through feedback, QEC must also focus on qualitative feedback which includes interviews and focus groups; while taking feedback or semi-structured interviews, influencing factors and relevant material must be part of the qualitative feedback (Ghislandi, Raffaghelli, Sangrà, & Ritella, 2020). Institutions are motivated and trusted by students when they respond to students' feedback and to e-learners' expectations and their prospective needs. Academic staff of the institution also value these types of feedback mechanisms (Regmi & Jones, 2020). The researcher focused on complete phases of feedback as well as effective communication via focus group and in-depth interviews. However, institutions mostly conduct quantitative feedback, as per regular institutional policies, and communication with students is missing and officially it is not conducted according to the qualitative feedback procedures. The reason is that conducting feedback quantitatively is easy and students only have to answer what is asked, which is not necessarily what they want to say (Sawras, Khosa, Lissemore, Duffield, & Defarges, 2020). Razzaque (2020) emphasized that there is a strong relationship between academic staff and quality enhancement via student feedback, he stated that "... it does go back to [like us] being in

partnership with the students, to work together to ensure that their feedback contributes to the enhancement process.”

Indeed, in a country like Pakistan, feedback is conducted regularly at the end of each semester, but the involvement of students through discussion has not been conducted to date; students who study online have never been offered an opportunity to discuss and disclose in a focus group or in individual in-depth interviews the nature of the problems they face regarding the online system.

2.4.1.5 Measures of Student Success

One of the most important aspects of quality enhancement is continually improving the student experience, especially with the use of key performance indicators (Waisbord, 2020). But using the parameter of student experience as a measure of success restricts the use of quality models and their implementation (Singh, Akbani, & Dhir, 2020). A quality model usually restricts the factor of innovation which is needed for online learning because of the mode, tools, and dynamic approach of communication methodologies.

Vătămănescu, Cegarra-Navarro, Andrei, Dincă, and Alexandru (2020) stated that it is a matter of fact that the inclusion of learners in the quality enhancement process in e-learning is necessary. At the institution level, it is important to gather the student satisfaction data of all departments and compare them to find where quality enhancement is most needed. Persistence in e-learning is positively related to student satisfaction (Pikkarainen, Hyrkäs, & Martin, 2020). Student satisfaction in e-learning is considered one of the important pillars of “The Sloan Consortium” (Madison, Daspit, & Marett, 2020).

Faculty feedback plays an important role in assessing teaching quality (J. Zhang et al., 2020). If learners are satisfied that their experience in online education is relevant to their professional life, then their learning experience matches the learning outcomes of their selected education mode

(Hakala, O'Shea, Farny, & Luoto, 2020). To identify the key performance indicators of online education, mutual understanding of the different stakeholders, like e-learners, faculty, alumni, transfer institutions, the general public, and accreditation associations, is needed to construct the perspectives and interpretations of the above-mentioned groups (Schmidt & Graversen, 2020). Schmidt and Graversen (2020) further suggested that learning outcomes of online education must be student-centered and match with student success, satisfaction, as well as achievement and improvement in the overall student experience.

The concept of quality is viewed as subjective and it is measured through economic value. He further expressed his feeling that the quality of learner satisfaction and success in online education is difficult to measure (Dai, Teo, Rappa, & Huang, 2020). Pozón-López, Higuera-Castillo, Muñoz-Leiva, and Liébana-Cabanillas (2020) stated that assessing quality in online education is important because of increasing competition and the shortage of employment opportunities for students. Today, students are very aware of the quality of their learning experience and know the quality requirements of professional development.

The institution must know the meaning of value and quality from the perspective of the student; no doubt the HEC has explained that meeting its policies and institution guidelines is compulsory before it grants permission to carry on the business of education (Osman, Sohel-Uz-Zaman, Ashraf, & Uddin, 2020).

One of the important and basic criteria to assess quality is accreditation, which every e-learning institution has to fulfill (Dukhan, 2020). After accreditation, institutions must foster the measurement of the quality of their routine activities (Jones et al., 2020). To measure the ongoing activities of e-learning, the institution has to focus on two important stakeholders, which our students and faculty; these stakeholders have no concern about the profitability of that institution

which is why they will express what they experience in the environment (Bozbay, Baghirov, Zhang, Rasli, & Karakasoglu, 2020). Yale (2020) concluded that the satisfaction of e-learners, institutional policies, faculty, and student experience plays important role in assessing the quality of e-learning.

2.5 Co-Creation Theory in E-learning Service Systems

2.5.1 Co-Creation of Value (Marketing Perspectives)

Tajeddini and Ratten (2020) stated that value holds significant importance for marketing strategies, and for an item of use it holds substantial appreciation. In marketing, value is known as the customer's evaluation of the benefits they gain and the sacrifices or cost of a product or service compared to other products or services (Lund & Karlsen, 2020). Chen, Zhang, Zhu, and Mu (2020) are of the view that the transactional approach to value prevails traditionally; the relative aspects of customers' perceived value have been neglected in the transactional approach.

Marketing and value development are significant in the spectrum of service and must be considered from the perspective of service. Kang and Na (2020) determined that customers always decide the value. These sorts of understandings are important and beneficial for value creation and co-creation (Mikalef, Krogstie, Pappas, & Pavlou, 2020). In this perspective of service, the power has shifted from businesses that typically decided customers' requirements. These chains of customers and production holders jointly work for the creation of value. Ramaswamy and Ozcan (2018) determined that this shift is "the democratization of industry" and they strongly agreed with the point that industry and stakeholders should encourage and come up with creative and innovative ideas, because only in this way will the industry remain competitive and keep pace with change. Ramaswamy and Ozcan (2018) stated that the industry should work as a proactive member and dedicate itself to this aspect.

Differences between Traditional Exchange and Co-Creation Experience

Migrating to Co-creation Experiences		
	Traditional Exchange	Co-creation Experiences
Locus of interaction	Once, at the end of the value-chain.	Repeatedly, anywhere and anytime in the system.
Goal of interaction	Extraction of economic value.	Co-creation of value through compelling co-creation experiences, as well as extraction of economic value.
View of choice	Variety of products and services, features and functionalities, product performance, and operating procedures.	Co-creation experience based on interactions across multiple channels, options, transactions and the price-experience relationship.
Company – consumer relationship	Transaction based.	Set of interactions and transactions focused on a series of co-creation experiences.
Pattern of interaction between company and consumer	Passive, firm initiated, one on one.	Active, initiated by either company or consumer, one-on-one or one-on-many.
Focus of quality	Quality of internal processes and company offerings.	Quality of consumer-company interactions and co-creation experiences.

Table 2.1: Traditional exchange vs. co-creation experience (Prahalad & Ramaswamy, 2004)

From the lens of the traditional value creation concept, we see that customers and stakeholders share distinct roles as consumers and producers. Prahalad and Ramaswamy (2004) viewed that co-creation of value is the collective development of products, experiences, and services by the stakeholders of industry and companies. Moreover, direct engagement of the customer gives a dynamic value to the customer–producer relationship (i.e., customers are greatly involved in creating and defining value). Prahalad and Ramaswamy (2004) reported that the results of the change in dynamics can be easily found in the areas of activism, experimentation, and networking.

Balasubramaniam, Kauppinen, and Tervo (2020) suggested that for developing services, it is equally important to consider customers' knowledge rather than only depending on experts' opinions, because although customers are passive consumers of the product, they serve the role of an active agent. Now, customers do not stop at buying a product and consuming it, rather they get involved and remain in contact with the producers and stakeholders. They are no longer only buyers of the product, they hold significant positions and work as an important resource person for the organization. Therefore, industry should not only focus on the needs of buyers, but also consider the experience of the customer. This notion has significant implications for the development and design of e-learning systems.

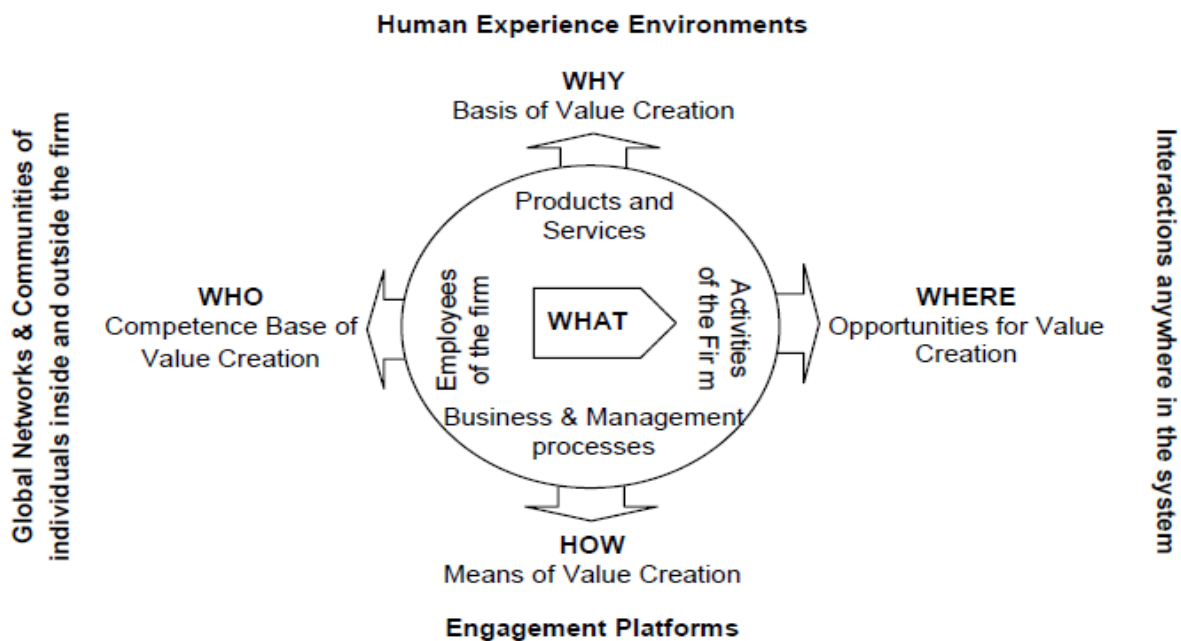


Figure 2.4: Co-Creation as expanding conventional value creation (Ramaswamy, 2009)

The involvement of individuals and communities in a systematic manner for the understanding of experience can serve as a major foundation of value creation. Prahalad and Ramaswamy (2004) developed a new strategy for innovation that is considered a new dimension of experience co-creation. It is drawn on three major pillars: engagement, individual experience, and interaction.

First, the companies should consider customers in the engagement process, which is more than interaction. Second, the experience of individuals holds a significant position in shaping value propositions. Last, customers should be given proper opportunities to interact and inquire about the product. Ramaswamy (2008) also pointed out that if we begin with the experience, we should consider the interaction between the industry and consumers, and it is necessary to engage customers.

Prahalad and Ramaswamy (2004) described co-creation as reaching beyond the business by engaging and involving customers and supporting the two dimensions of interaction and engagement. Moreover, quality interactions with consumers and stakeholders can co-create unique experiences for the industry; they also open new dimensions in the arena of competitive advantage (Ramaswamy & Gouillart, 2010). In the application of e-learning, one can reach beyond all processes of learning including lectures, tutorials, and counsels. However, learners' utilization of the system of the e-learning process and the creation of their own experiences out of it vary.

Akman, Plewa, and Conduit (2019) stated that co-creation can be defined as a useful and consistent collaboration with consumers and stakeholders for innovation. Moreover, Giacomarra, Crescimanno, Sakka, and Galati (2019) shed light on the interactive dimension of value co-creation: according to them, the new grounds for co-creation are leading to change in the dimension of interaction and engagement between stakeholders and consumers, employees and management and partners, and other co-creators of value. In this paradigm of co-creation, companies and stakeholders bring the consumer beyond their needs and provide platforms for jointly creating value (Corsaro, 2019; Torfing, Sørensen, & Røiseland, 2019).

2.5.2 Co-Production and Value Co-Creation – E-learning Perspectives

If we look from the perspective of service, it is the use of service that makes the realization of value (Sarkar & Banerjee, 2019). In this regard, researchers are of the view that “users of services are thus both the co-creators and the judges of service value” (Hsiao, 2019; Petrescu, 2019). Whether being engaged in services or goods, the value holds a central role in the experience of consumers (Fletcher-Watson et al., 2019; Zeithaml, Verleye, Hatak, Koller, & Zauner, 2020). Hence, it is the responsibility of institutes and stakeholders to focus not only on gaining customers by offering different services, but also on looking for more suitable and appropriate ways to create value (Díaz-Méndez, Paredes, & Saren, 2019). In today’s perspective, an abundance of services is provided through technology and these technology-based services are grounded on e-learning services. Ramaswamy and Ozcan (2018) explained that co-creation of value is a process to increase customers’ unique experience of the services. To enable customers to have a positive experience, customers must take part in a unique experience of co-creation with industry and companies. These circumstances help customers in co-constructing their own experiences and should be given opportunities to be facilitated (Harkison, 2018; Ramaswamy & Ozcan, 2018).

2.5.3 Co-Creation in Higher Education

2.5.3.1 Value Co-Creation

For decades, higher education has been concerned about the engagement of students (Bryson, 2016; Tight, 2018). Researchers have pointed out that the more student partnership appears in educational activities, the more students will be involved in interaction, participation, and engagement (Darwin, 2017; Kahu & Nelson, 2018). It is not only higher education that is inclined to engage consumers, but also outside the educational sector, where consumers and users of a product/service are actively engaging in participation (Antón, Camarero, & Garrido, 2018;

Tomlinson, 2017). Therefore, the researcher is working on developing co-creation literature for higher education with the help of already developed co-creation literature.

The approach of value co-creation is mostly used nowadays to involve and engage customers to bring innovation in value (Martínez-Cañas, Ruiz-Palomino, Linuesa-Langreo, & Blázquez-Resino, 2016; Tan, Tan, Lu, & Land, 2017). The value co-creation approach was adapted from the traditional way of dealing with consumers, in which consumers share their needs, while industry and stakeholders create the value and customers use it or consume it (Khanna, Jacob, & Chopra, 2019; Omar, Kassim, Shah Alam, & Zainol, 2018). Ng and Vargo (2018) stated that in adopting the co-creation process, an organization develops a balanced relationship between the producer of the product or service and the consumer. It mainly seeks consumers' participation to shape the product or service according to the consumer's requirement. Prahalad and Ramaswamy (2004) explained that value co-creation takes the concept further to differentiate products that involve services and the few that do not involve services. Balasubramaniam et al. (2020) described that in this approach the consumer becomes the co-creator of value, rather than considering the consumer as only a user, the consumer gives value propositions (Chakraborty & Poddar, 2020). Value co-creation does not take the traditional approach in which consumers' needs were pre-assumed and the producer relied only on end feedback, rather it engages consumers and allows them to have an active engagement in product completion (Othman, Harun, De Almeida, & Sadq, 2020). Moreover, consumers can add their perspectives, opinions, complaints, endorse, and engage with the industry and stakeholders. By engaging and allowing the consumer to participate actively, the co-creation of value minimizes the gap between the producer of the product or service and the consumer; in this way, both stakeholders also collaborate, share and exchange knowledge regarding the product or service (Lee, Olson, & Trimi, 2012; Lorenzo-Romero, Constantinides, &

Brünink, 2014). In educational institutes, through the value creation approach, students can engage and interact with the faculty of the university and can develop an integrated and superior understanding (Grissmann & Stokburger-Sauer, 2012; Quach & Thaichon, 2017). In the private sector, the organization which utilizes more value co-creation can attain more profit and market share (Kazadi, Lievens, & Mahr, 2016). In the next subsections, two main parts of co-creation are discussed in detail, co-production and value-in-use. In these two subsections, a complete scenario of the higher education market is discussed and these two underlying elements are considered the main constructs of co-creation.

2.5.3.2 Co-Production

Co-production is a system of involving consumers and users of products as a resource to improve the quality of the product or service by involving them in the process of production. In this process, consumers' experience, knowledge, and opinions strongly influence the production of the product or service (Dellaert, 2019; Durugbo & Pawar, 2014). Customization is involved at the later stage of production, where few changes are made in product or service, to make the product or service according to the need of the customers (Agrawal & Rahman, 2015). Moreover, in the customization process, the customer is involved to get the product or service of choice (Dellaert, 2019). Co-production differs from customization in the sense it involves a very early stage of production and it is not on a superficial level like customization. Alzaydi, Al-Hajla, Nguyen, and Jayawardhena (2018) were of the view that the process of co-production is a fundamental shift in the process of production, it takes account of the consumers and changes the product according to the feedback of customers who directly influence the production of the product. In the same way as co-creation, co-production involves the customers as active members of the production team (Osborne, Radnor, & Strokosch, 2016); a consistent relationship is developed with the consumers

of the product or service (Sinclair, Sheldrick, Moreno, & Dewberry, 2018). In this concept of co-production, consumers are considered part employees of the production team (Williams, Kang, & Johnson, 2016). In this approach, consumers also hold more responsibility as compared to the traditional approaches, because in this approach the consumers are required to share ideas and exchange knowledge with the production team (Lintula, Tuunanen, & Salo, 2017). Trischler and Scott (2016) were of the view that co-creation is the last construct whereas the first two are co-production and value-in-use. To further explain, they say that co-production is the first stage as it can impact co-creation and value-in-use. This process of co-production can be further seen by evaluating its three sub-processes: interactions with consumers, equity, and knowledge sharing (Ranjan & Read, 2016). These three aspects are indicators and together they construct the approach of co-production. This can be modified as:

- a) How do students engage their experience, knowledge, and other sources in the value proposition of higher education?
- b) Are students given equal opportunity in the development of higher education's value proposition?
- c) How much is the quality of interaction between the students and teachers to co-create the value proposition endorsed?

To further explain co-production, the following three subsections give details about how these three constructs add to the value proposition in the market of higher education.

2.5.3.3 Knowledge

Knowledge is the most fundamental construct in which the consumer and the producers of the product or service exchange their knowledge to achieve mutual interests and better innovations (Füller, Matzler, & Hoppe, 2008).

Co-creation second-order construct Part II: Co-production

Second-order construct	First-order construct	Modification to higher education
Co-production	Knowledge	How does the student integrate their knowledge, experiences and/or other resources into the value proposition of higher education?
	Equity	Does the student have equal access to the development and design of the higher education value proposition?
	Interaction	What is the quality of the interactions between the student and the higher education institution to integrate resources and co-create the value proposition?

Table 2.2: Co-creation second-order construct (Dollinger et al., 2018)

There are many ways through which industry and stakeholders involve customers and share knowledge on multiple platforms. They engage consumers and collect analyses and share knowledge regarding the product or service in use. This sharing of knowledge between the consumers and industry or stakeholders is crucial because it helps the organization to be aware of the current needs of the consumers and develop prospects based on provided knowledge (Von Hippel, Ogawa, & PJ de Jong, 2011). Gann and Salter (2000) suggested that stakeholders and industries that involve consumers can easily understand the market flow and are more able to understand future opportunities. Many researchers have pointed out that in sharp marketing strategies, organizations have used consumers' knowledge in reshaping their services, products, and quality (Quinn, 1999; Romero & Molina, 2011a). Moreover, research studies have shown that organizations that tend to use consumer knowledge get more desirable results as compared to those organizations that tend to use their own knowledge (Roberts, Hughes, & Kertbo, 2014; Sawhney & Prandelli, 2000).

2.5.3.4 Equity

Although through knowledge sharing a company gets desirable results, it is not enough to complete the process as access and resources are also important to complete the process of co-production (Olsen, 2006). Hoskins, McFayden, and Finn (1998) stated that two aspects are very important for

co-creation and co-production: one is a relationship with consumers, and the other is equal access to customers. Payne stated that this approach to giving equal access to the users may depend on two factors: firstly, often this ability to provide access to customers in the organization gets routed by narcissism and unwillingness to relinquish control (Shaw, Bailey, & Williams, 2011); secondly, Dollinger et al. (2018) pointed out that equity is significantly related to the organization's ability to provide a supportive environment for consumers.

2.5.3.5 Interaction

It is important to maintain interaction between the industry or organization and consumer because it helps co-creation and co-production, such as sharing of knowledge and equity (Pini & Policy, 2009). According to many researchers, interaction and engagement between the consumer and producer is the same as the alliance in any mission. In the process of value co-creation, customer interaction and organization are also encouraged as other constructs of the approach (O'Hern & Rindfleisch, 2010). This emphasis on interaction is important because of many reasons; first, through interaction with consumers the industry and stakeholders can get valuable feedback on products and can improve their quality (Piller, Vossen, & Ihl, 2012). Second, consumers feel a sense of mutuality in the development of products or services (Ng, Maull, & Yip, 2009). However, co-production is only one part of value co-creation; according to Grönroos and Voima (2013), in the process of interaction the consumers give feedback, but that is already controlled by the stakeholder. It is in the hands of the organization and stakeholders to what extent they want to add customers in the production of value. Hence, it is not enough if value co-creation is discussed only from the perspective of co-production. This should be taken to the next step; that is, what will happen after the production of the product or service, and how will consumers use it or how will students take in the scenario of the higher education market?

2.5.3.6 Value-in-Use

As co-production occurs between industry and consumers during the process of delivery of the value of proposition and design, value-in-use can be taken as the experience both the producers and users are experiencing during the use of the product or service. It gives rise to the concept of service-dominant logic. Alford (2016) first introduced the term value-in-use, according to which, every product or service is value-free until consumers give it some value. Hence, service-dominant logic stresses the relationship between the two as a key element in the value creation process. Moreover, it is the industry or organization that solely works for the value of engaging the customers; the consumers play an important role in the process of interaction and jointly work for the creation of the value (Gummesson, Mele, Polese, Galvagno, & Dalli, 2014). So, disregarding the services or products offered by an organization, the actual exchange value is applied by the resource of the consumer (Jensen, 2001). De Chernatony (2010) and Jensen (2010) shared a car analogy to explain it in a better way. They say that a car has no value until it is driven by a customer, only when the customer drives it, does he/she give value to it in a mutual process of engagement, filling the need to travel from one place to another (McDonald, Rogers, & Woodburn, 2000).

Co-creation second-order construct Part II: Value-in-use

Second-order construct	First-order construct	Modification to higher education
Value-in-use	Experience	How does value co-creation impact student experiences within higher education?
	Personalization	To what extent can students personalize their higher education value propositions?
	Relationship	How does value co-creation impact student relationships to their higher education institution?

Table 2.3: Co-creation second-order construct Part II: Value-in-use (Dollinger et al., 2018)

2.5.3.7 Experience

Rowley (2008) thought that the first dimension of the concept of value-in-use is the experience of the consumers, and how these experiences link with the value-in-use the customers take. This experience of the users is not only important for the producer but also for the consumers, because if the users have a positive experience, it will help them to develop a positive bond with the product/service and organization (Dellaert, 2019; Komulainen & Saraniemi, 2019). Moreover, it will also, in the future, influence the behavioral changes of the user towards the product or service (Jang, Bae, & Kim, 2020; Yu, Wen, Jin, & Zhang, 2019). It all depends on the experience that the user is getting from the product or service (Peronard & Ballantyne, 2019). Different research studies also show that the experience of the user is also beneficial for consumers and it increases the experience value of the consumer (Reinartz, Wiegand, & Imschloss, 2019). Even in the literature of higher education, many researchers have pointed out the concept of experience (Eckhardt et al., 2019; Karunanayaka, Arokiasamy, & Masri, 2019). Line et al. (2020) stated that the experience of students is the experience they get from their learning and it can be said to be a learning experience disregarding the method of delivery. In contrast, the experience of learners is taken to be the way in which they participate and respond in their learning scenarios and take the role of customers (Elghannam et al., 2020). This area has given birth to a separate stream of research in which few learners agree to have consumer-type roles (Tricio et al., 2019) and some others do not agree (Siedentop, Hastie, & Van der Mars, 2019). However, because of the way the higher education market is growing, it will be highly important to consider students' experiences and to reflect, respond, and make the products or services better (Shibani, Knight, & Shum, 2020).

2.5.3.8 Personalization

Value-in-use does not only take into account the experience of the customer, but it also considers how the customers personalize this experience and value proposition for their use (Hamilton & Price, 2019). Unlike in co-production in which the personalization and user priorities are integrated into the process of production (Woo, Kim, Kim, & Wang, 2019), in the chain of value-in-use, personalization comes at a later stage (Wan, Dastane, Mohd Satar, & Ma'arif, 2019). The value proposition is created, now it is open for users to change the use, value, or meaning (Assiouras, Skourtis, Giannopoulos, Buhalis, & Koniordos, 2019). Consumers, whether they have been part of the industry for a long time (Shin, Kim, & Severt, 2019) or are learners of higher education, both tend to personalize their experience of the service or product (Boyd & Koles, 2019). Therefore, it is observed that most customers want to change their products or services once they have purchased them (Carlson, Rahman, Taylor, & Voola, 2019).

2.5.3.9 Relationship

Relational construct is the last element in value-in-use. Relationships and interactions might be taken as the same, but they are different and distinct (Franklin & Marshall, 2019). The relationship construct, which accompanies the already discussed two elements of personalization and experience, gives a new complex layer; the relationship construct is a user's complete relationship with the industry, different from the experience of the individual, which may also influence the customer's overall perception of value (Zhang, Gupta, Sun, & Zou, 2020). In particular, it links the value co-creation process, as, mostly, the relationship and experience between the organization and user is a collaborative experience that can significantly influence the concept of co-creation value. This co-creation value process is a shift from the traditional relationship between industry and consumer (Corsaro, 2019a), in which industry and stakeholders' two-way relationship with

the user is on completely different grounds (Dolan, Seo, & Kemper, 2019). In the same way, students' relationships in higher education can be impacted by students' feelings for the university, learning experience, and their experience of higher education (Iglesias, Markovic, Bagherzadeh, & Singh, 2020). A community can be created through a positive relationship between the students and university (González-Mansilla, Berenguer-Contrí, & Serra-Cantalops, 2019); moreover, it can also lead to the development of collaborative behaviors as balanced roles, relationship formation, and dialogues are built through the stream of value co-creation (Sthapit, Del Chiappa, Coudounaris, & Bjork, 2019). It can have a strong capacity to build a relationship between the students and institutes; a link between value co-creation and institutes can have anticipated benefits. For co-creation value to have a meaningful influence on students and institutes, it needs to bring advantages for institutes and students. According to different theories, such as diffusion of innovation, to improve the influence of strategies, strategies need to have wide appeal, therefore, by joining the interests of both parties (i.e. students and teachers) co-creation value would serve as a widespread interest; however, until now, minimal work has been done on exploring both parties in a model of value co-creation (Kelleher et al., 2019). Thus, it will be a great addition to the literature if a co-creation framework showing the dimensions of students' and university's benefits is created. Moreover, the impact of the hidden constructs of co-production and value-in-use on students' and university's benefits is still unknown. Yet we can say that a few factors have a significant influence on the benefits of graduate capabilities, quality interaction, and satisfaction (Friend et al., 2020). The concept of co-production was developed based on engagement, knowledge sharing, and equity to build a strong relationship between the staff and faculty members, it is a part of value co-creation that will have an overall impact on the benefits of students and university, and it enhances learners' experiences. In the same way, aspects of value-in-use are

strongly related to institutional elements, like the loyalty of the students, image of the university, and student institute identification. This is all because value-in-use has a significant impact on a customer's experience, personalization of services, and the relation with industry (Mijnheer & Gamble, 2019). All these factors boost the benefits of the higher education market as they encourage students' experience, personalization, and building a positive image; thus, they hold a significant position in the process of value co-creation (Smørvik & Vespstad, 2020). One cannot deny that the benefits of the organization/higher education are co-related with the benefits of students and only in these e-learning institutes may they achieve what they want to achieve.

2.5.3.10 Quality Interactions

Previous researchers strongly argued about the better relationship between the student and faculty members (Gómez-Ramirez, Valencia-Arias, & Duque, 2019; Kumar & Nanda, 2019), but few among them looked into the nature or quality of the relationship (Latif, Latif, Farooq Sahibzada, & Ullah, 2019; Masserini, Bini, & Pratesi, 2019), and even fewer took a value co-creation perspective. This relationship between the students and teachers has a significant influence on the market of higher education and on experiences of the institute (McCallen & Johnson, 2019; Sousa & Magalhães, 2019). With a quality relationship, many objectives can be achieved, among them is mutual respect for the faculty and understanding (Arkoudis, Dollinger, Baik, & Patience, 2019; Kim, Hong, & Song, 2019), which can further lead to better development of the university community (Stathopoulou, Siamagka, & Christodoulides, 2019). Researchers are of the view that the interaction between a teacher and student inside the class or outside the class, whether it is related to academia or not, is the most impactful factor in the development of the organization (O'Leary & Cui, 2020; Santos, Marques, Justino, & Mendes, 2020). Snijders, Wijnia, Rikers, and Loyens (2020) stated that researchers often point out that trust and satisfaction are significant

influencers on the loyalty of students, but they often ignore the impact of interaction. It is the responsibility of a university to provide quality teaching staff and engage them in training for better interaction with learners. Quality interaction has many benefits for an institute, such as trusting relationships, satisfaction and improving the image of the university. Understanding the importance of interaction between the students and faculty inside or outside the organization is possible through the process of value co-creation (Bovill, 2020). Through the process of value co-creation, a better interaction can be developed between the students and faculty leading to a sustainable relationship that ultimately values the learning experience of the learners (Hayashi, Chen, Ryan, & Wu, 2020). Most researchers pointed out that healthy relationships between the teachers and students can help the university to improve itself in the market of higher education (Ghafar, 2020; Ogunmokun, Unverdi-Creig, Said, Avci, & Eluwole, 2020).

2.5.3.11 Satisfaction

Satisfaction as an entity has been given different definitions and there is no final definition of it. Ogunmokun et al. (2020) stated that satisfaction is an evaluation of emotional and affective response. Moreover, in the literature of consumers and user satisfaction it is defined differently, it is more associated with likes or dislikes for the product after a considerable time (Kumpu, 2020). It is difficult to measure satisfaction, as it can only be measured by asking customers or users after they have spent time with the product or service. It is mostly implied in the higher education market because of its versatile nature and because it is linked with other factors and indicators in higher education markets, such as students' loyalty, the trust of users, and retention. Few researchers have highlighted that the relationship between satisfaction and co-production is not positively linked (Rajput, 2019; Román, Riquelme, & Iacobucci, 2019); other researchers have pointed out that co-creation participation may improve students' value and satisfaction. The literature of higher

education states that interaction with students and institutional responsiveness can have a significant influence on learners' satisfaction (Duque, 2013; Elsharnouby, 2015). Similar to value co-creation, satisfaction affects many other factors of learners' progress; value co-creation can help universities to influence satisfaction. Moreover, researchers also pointed out that when students were refused access to the process of value co-creation, their satisfaction level decreased and they were less likely to repurchase the product or service (Ledden, Kalafatis, & Mathioudakis, 2011). Hence, it is important to engage students in participatory roles in which they can have maximum opportunities to have meaningful progress.

2.5.3.12 Graduate Capabilities

Graduate capabilities are the other benefits students will get in the process of value co-creation. The term graduate capabilities has a broad definition, it means the skills and attributes students carry in their life and professional career (Judson & Taylor, 2014). In the last few years, higher education has emphasized that graduate students should develop twenty-first-century attributes and capabilities during their university career (Lorenzo, Oblinger, & Dziuban, 2007; Perello-Marín, Ribes-Giner, & Pantoja Díaz, 2018). These skills have a vast spectrum and hence are hard to evaluate or assess (Lorenzo et al., 2007). A few examples of graduate capabilities are effective and clear writing skills, thinking effectively, handling complex problems, and developing an understanding of multiple social contexts. Value co-creation can be a useful process to increase learners' graduate capabilities. Previous research has pointed out that through the process of value co-creation learners enjoyed and improved their learning experience; teachers also improved their teaching practices and experience (Dubey & Tiwari, 2020). If students take part in educational activities and actively carry out the projects given by teachers, it means they are enthusiastic about learning, which can have a significant impact on their graduate capabilities (Hinson & Mogaji,

2020). In the process of value co-creation, students develop a proposition with the university and hence it takes them to leadership roles, ultimately improving their graduate capabilities.

2.6 Anticipated Benefits for Institutions

The process of value co-creation involves both the students and university, it creates opportunities for both parties to gain benefits, hence it can be said that this is a process of mutual value creation in which both the university and students will receive the benefit (Foroudi, Yu, Gupta, & Foroudi, 2019). One example is that universities are working hard to gain branding in higher education (Dollinger & Lodge, 2019), which is increasingly important, and for this purpose, they are involved in a value co-creation process. As value co-creation builds a relationship between the university and students, the university can gain further advantage from this relationship in terms of the loyalty of students, improving the image of the university, and student university identification (Lubicz-Nawrocka, 2019). In addition to this, the value co-creation process is thought to develop positive quality interaction between teachers and students (De Silva, Khan, Vorley, & Zeng, 2019); with this quality interaction, the institute can gain more benefits. Hence, this section focuses on other anticipated benefits that a university can obtain from the process of value co-creation.

2.6.1 Student Loyalty

It is now an important aspect of higher education that universities are developing an interest in students' loyalty. People's loyalty changes with changes in their preferences and demands over time concerning a product or service (Lai, Pham, & Le, 2019). Researchers have shown that there is a strong link between the perceived quality of the product/service and students' loyalty to the university (Hamidi & Jahanshaheefard, 2019). Other researchers were of the view that loyalty can be measured from multidimensional perspectives (Doña Toledo & Luque Martínez, 2020). Some

researchers stated that postgraduate students' loyalty may be an outcome of employment security. Hence, this framework sees the loyalty of students as a reflection of current scenarios rather than the outcome of post-graduation circumstances. The loyalty of their students is a very significant phenomenon for institutes as it helps the organizations to get positive benefits. In another study, it was shown that students who showed loyalty to their universities came back for graduate degrees, they also promoted the soft image of the university, and helped to bring a financial outcome to the organization; also, as alumni, they prefer to give jobs to their younger university fellows. However, it is still a big question of how a university can nurture loyalty among its students (Slocum, Dimitrov, & Webb, 2019), and different studies are looking into value co-creation as a joint venture to promote loyalty among students. Students' trust can be nurtured by developing a positive relationship between the students and the organization at a personal and management level (Zheng & Kapoor, 2020). In this way, the students like to develop a stronger bond with the organization and it leads to the nurturing of the loyalty of the students for the organization. Ogunmokun et al. (2020) found in higher education that students' loyalty to their institutes depends on how the university dealt with their problems and learners' issues. Thus, the value co-creation process helps institutes to build loyalty among students through engagement, positive experience, and promoting a sense of ownership. In addition to this, the institutes through the process of value creation can learn more about how they can foster their students' loyalty by bridging the gap and considering the needs of learners (Lyons, 2019; Magolda, 2020).

2.6.2 University Image

In connection with students' loyalty, the other advantage of value co-creation is the image of the university in the eyes of students. This can be taken as the customer's impression after use of the product or service, which is strongly related to the perception and satisfaction of the students (Kim

& Sullivan, 2019). This issue is very important in the market of higher education (Abbas, Aman, Nurunnabi, & Bano, 2019). University image, furthermore, is a reflection of how students feel about the organization and, thus, it is an important factor to measure. Institutes show concern about their image in the eyes of students and the public as this influences the reputation of the organization considerably (Nejjari & Aamoum, 2020). Moreover, it is a crucial aspect for appealing to future students. Similar to loyalty, it is hard to measure the image of an organization in the eyes of students (Thomas, Brooks, & McGouran, 2020). The notion of university image is most of the time mingled with other terms, such as reputation and identity; moreover, many researchers have looked into this area of university image and concluded that multiple factors, including prestige and service, impact the image of the university (Iglesias, Markovic, Singh, & Sierra, 2019). As mentioned earlier, through value co-creation the relationship between the students and the university can be developed, which will ultimately lead to a better image of the university. This is important because in the market of higher education there is strong competition; to compete, the university needs to maintain its image in the eyes of the public and students, otherwise the institute can face damage in terms of finances and reputation, which can lead students to choose another university (Alwi et al., 2019; Tan, 2019).

2.6.3 Student–University Identification

Student–university identification is the third benefit that the framework, which is a shaped version of (El-Kassar, Makki, & Gonzalez-Perez, 2019; Sarra, Fontanella, & Di Zio, 2019), provides to institutes for graduate–university identification; this term is theorized through the literature of business and consumer company identification. This term describes how members of a particular organization relate to the core of the organization's mission of value (Jones & McCoy, 2019). This implies in a way that if the bond of identification between the student and organization is strong,

then learners will take the success or failure of the organization as their own (Hassan, Adhikariparajuli, Fletcher, Elamer, & Journal, 2019). Yanez, Uruburu, Moreno, and Lumbreras (2019) have already pondered on the identification of organizations and students; they are also supporters of organizational development. A major component that has a significant effect, for example, is success, which leads to the development of a positive image in society and, ultimately, it leads to a positive social identity (Njenga, Garg, Bhardwaj, Prakash, & Bawa, 2019). However, other aspects are involved, such as loyalty, which may not impact student–university identification directly, despite the students’ likes or dislikes being strongly linked with the characteristics and values of the institute. Student–university identification is also linked with the literature of identity; this type of literature is significantly important in the competitive market of higher education (Zaineldeen, Hongbo, & Ibrahim, 2020). Even with the help of value co-creation, larger organizations and stakeholders can benefit and serve individual customers (André et al., 2020). Studies have identified that for the creation of quality experience, it is important to build personal interactions and relationships in university branding (Silva, Leite, Vilas-Boas, & Simões, 2019). Farrier-Williams (2019) emphasized that experience in education includes experiences, interactions, and engagement, all of which have a significant impact on students’ value. With this framework of value co-creation, institutes can study the feedback of students, which will help in assessing ongoing realities, future challenges, and current weak areas (Schweitzer, 2019). In this way the traditional capitalist frameworks are improved, in which consumers had minimal capacity to influence the product or services, yet held complex and deep needs (Thiel, 2019). The new marketing strategies can be adopted by institutes in which populations of students are from diverse backgrounds and they can be involved in marketing segment identification (Strauser & Chauvin, 2020). In this way, universities, which have diversified populations of students, can understand

the needs of their students in a better way and can develop future strategies, which will help them to compete in the market with their competitors. Also, with these strategies of value co-creation, the organization can help individuals to build link-minded groups (Mogaji & Yoon, 2019). With the help of these students (customers), driven groups universities, and organizations can understand the evolution process of customers/students (Ellis & Goodyear, 2019). Nada and Araújo (2019) mentioned that activities of co-creation could help students to improve teamwork, management of time, and creativity to find innovative ideas and solutions to problems.

2.6.4 Indicative Model

The already discussed literature and conceptual frameworks can help the reader to better develop and understand the framework of co-creation in the sector of higher education. As earlier discussed, the framework of co-creation encapsulates the dual constructs of value co-creation: value-in-use and co-production (Cattaneo, Horta, Malighetti, Meoli, & Paleari, 2019). This framework moreover clarifies the terms of the constructs and formative indicators. The competitive indicator of co-production as a composite variable is interaction, knowledge, and equity (see Figure 2.5).

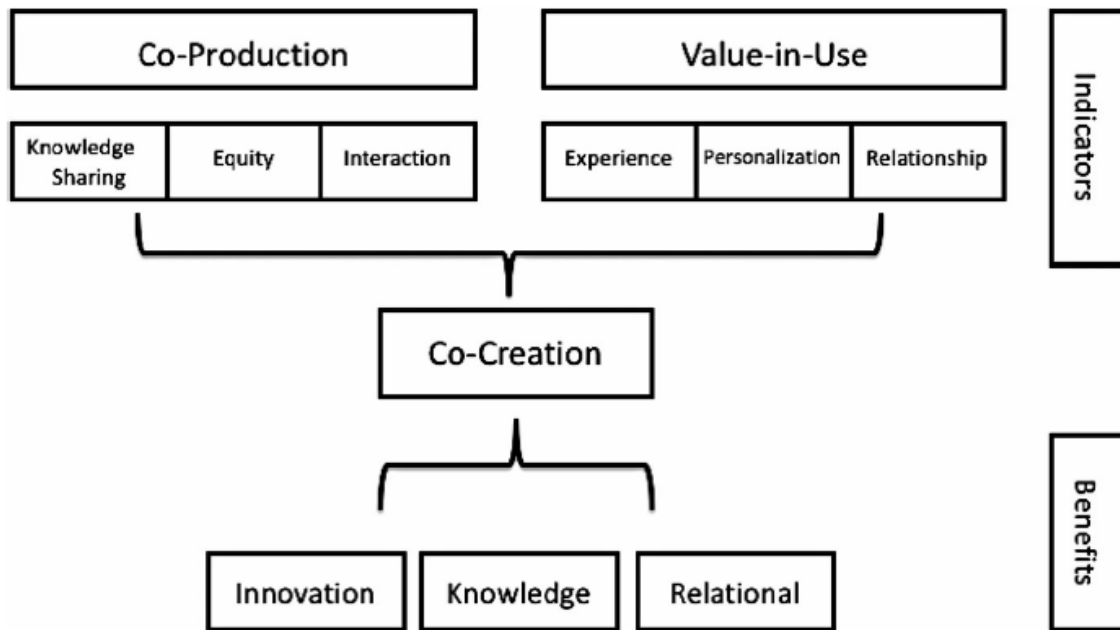


Figure 2.5: Indicative model of value co-creation in higher education (Dollinger et al., 2018)

Value-in-use can be constructed by understanding how students have used this value proposition and can be highlighted with the help of the third-order constructs of relationship, personalization, and experience. Therefore, the six formative indicators, informing the dual constructs of co-production and value-in-use, inform the measure of value co-creation an institution can orientate itself towards. This framework also pointed out the pre-conceived advantages, for both categories that are universities and customers (students), obtained from the value of co-creation. Based on the literature of business and the literature of higher education, these advantages of co-creation are for customers (students), quality interaction, satisfaction, and capabilities of graduates. For institutions (industry), the loyalty of students, the image of the university, and student–university identification. The framework shared in this study is indicative and experimental research should be undertaken to test the authenticity of the framework in a real environment and situation.

2.6.5 Discussion

The above-mentioned model not only explained value co-creation as a twofold construct, but it also described value-in-use as well as co-production in respect of higher education. Moreover, it can bring changes to the co-creation process from the perspective of higher education, especially in the e-learning context. To achieve the desirable targets from the e-learning model in Pakistan, students should be allowed to voice their views regarding the effective provision of learners' support services (Voropai, Pichyk, & Chala, 2019). In the past, education was not considered a single product entity; most of the time, it played an important part in co-created communication between the institution and the e-learners with a strong base of associations. Moreover, in the past, higher education had different partners to bring into being multifaceted and multidimensional results (Díaz-Méndez & Saren, 2019). The processes of higher education are different from other services' concerns, so the value is almost completely dependent upon the leaders of an institute. Higher education needs years to look after the process of monitoring and control of those universities that bring their students onboard by evaluating their key performance indicators. The principles of value co-creation, like consumer resource integration, are confusing in practice and become difficult to determine (Skourtis, Décaudin, Assiouras, & Karaosmanoglu, 2019). The objective of HEIs is not the conversion of their standards into numbers or figures of value co-creation, but to direct themselves towards further value co-creation methodologies. The value co-creation approach is a difficult task for any institute. Some researchers have called it 'service science' and the complicated system should create stability for integrating different resources (Temple Clothier & Matheson, 2019). Moreover, researchers have pointed out that value co-creation is needed to be practiced in organizations and institutions where the leaders of the institute can better understand its abilities of the head of the department show their willingness to follow

the innovative law of co-creation (Lee, 2019). Even those institutes with a clear value co-creation approach that was understood practiced co-creation and they required training and the development of new aptitudes (Rihova, Moital, Buhalis, & Gouthro, 2019). Unsurprisingly, there are barriers to the application of value co-creation because there is a lack of fully equipped industry leaders and experts who have know-how about value co-creation (Dey, Babu, Rahman, Dora, & Mishra, 2019). This dilemma also creates hurdles from the higher education perspective, because most leaders of departments or of the sector have a background in academia not business (Luo, Wong, King, Liu, & Huang, 2019). Departmental leaders prefer to focus on superiority (Rahman et al., 2019) than on training for value co-creation and they do not have the experience that would enable them to understand the role of a manager, which includes institutional marketing execution and management approaches like value co-creation. In this way, the power that often makes higher education workers excel in their field can also be the reason that stops them from choosing more entrepreneurial and managerial behaviors (Sthapit, 2019). The present model described here shows different advantages of value co-creation. At first, it focuses on the work done by researchers in which they support value co-creation that includes elements of co-production and value-in-use. It also describes value co-creation in the context of higher education, which is mostly said to be a consumer-driven arena where students hope for capable institutions comprising change and progress (Daddow, 2015). And, finally, the model highlights how co-creation can add value in higher education, not only through institutions but also through the students on whom the institution depends.

2.7 Customer Participation and Process of Value Co-Creation

2.7.1 What is meant by Customer Participation?

Consumer/e-learner participation is defined as “the degree due to which the customer starts involving in making and providing the service” (Lee, Lee, & Feick, 2001). Participation is considered in a wider sense than co-production, and co-production is marked by the firm or institution-designed parameters (Schmit & Allscheid, 1995).

Participation includes the intended actions of e-learners/consumers to give surety that the service is not only a matter of delivery but also fulfills their needs (co-production) and improves or enhances the value which will be useful for the process. Thus it is ensured that value is produced for consumers, the suppliers also have the chance to increase their participation in communication processes or to show other than mere interaction, which may provide facilitation in collaboration with consumers, and thus take the most appropriate steps for a positive contribution to value co-creation (Caruana, 2002).

2.7.2 Participation of Customer in the Service Process

Participation of customer/e-learner in the service process is “the expression of the informational, physical, behavioral and emotional contribution in the stages of service process (provision, presentation, production and evaluation of the service), and the will and ability to contribute for increasing customer satisfaction and service quality, and to create value” (Berry, Zeithaml, & Parasuraman, 1983; Vakulenko, Shams, Hellström, & Hjort, 2019).

The participation of the customer/e-learner in the service process has four main dimensions. First is informational participation, which includes the sharing of information between customers/e-learners and service providers, and it is based on which appropriate service can be given to every customer (Xiao & Kumar, 2019). Second, behavioral and physical participation includes the

degrees of responsibility and presence of the customers and the service provider in the service process (Hazée, Van Vaerenbergh, Delcourt, & Warlop, 2019). Third, emotional/interactive participation includes an interactive environment not only for customers but also for service providers to communicate, where customers can share their personal experiences that they have got from the service users which can affect service quality (Kabadayi, Ali, Choi, Joosten, & Lu, 2019). Last, the will and ability to participate which includes enough willingness of the customers and the service providers to play a part in the service process, which depends on personal behavior and context-related factors (Kong, Wang, Hajli, & Featherman, 2020).

2.7.2.1 Historical Background of Customer Participation in Marketing

Kong et al. (2020) pointed out that the logic of time-related with marketing exchange becomes flexible between two interaction points, that is, the point of pre-sale service interaction (value facilitation and value co-creation) to the post-sale service interaction (value-in-use), along with the view of continuing further, as the connection develops. To understand this argument, some of the models related to consumer behavior are considered. For a description of each key constructs: 1) The Nicosia Model (1966); 2) The Engel, Kollat, and Blackwell model (1968); 3) The Howard and Sheth Model (1969); 4) The Howard and Ostlund Model (1973); 5) The Bettman's Information Processing Model of Consumer Choice (1979); 6) The Fisk Model (1981); and 7) Sheth, Newman and Gross Model (1991).

Elgar's (2012) three-stage model of service consumption discussed Lovelock and Wirtz's (2011) model on the foundation of a framework that illustrates the three stages of the customer–producer encounter through the business exchange. The model shows three stages of consumer consumption behavior. During the pre-purchase stage, the customer perceives the need to buy a particular service: “Needs can be initiated by the subconscious mind (e.g., impulse buying), internal elements

(e.g., hunger) or external factors (e.g., marketing mix)” (Tsiotsou & Wirtz, 2015). The customers start gathering information about that service using different sources and make a concrete and final decision to select one out of several substitutes available in the market. This leads the customers to the next stage, called the service encounter stage; in this stage, they come into direct contact with the service firm and can participate in co-producing and co-creating the main service offering (Etgar, 2008; Fisk et al., 2011). The provider, the circumstances, staff, and other buyers also affect a customer’s expectations about the service demanded from the firm. The post-encounter stage enables customers to check their complete assessment of the service, depending on which they arrive at a conclusion about again purchasing the service they bought (Moeller, 2008; Oertzen, Odekerken-Schröder, Brax, & Mager, 2018).

There are various standards of customer participation needed across different services. For example, the customer should be physically present (low level of participation) to gain an entertainment service during a symphony concert (Grönroos & Ravald, 2011). In some other cases, a contribution from the customer is necessary (information, effort, or physical possessions) to assist the provider in creating the service (moderate level of participation). For example, the provision of necessary and related information linked with the service provider to prepare a tax return, along with physical evidence like past tax returns and receipts (Mascarenhas, Kesavan, & Bernacchi, 2004). A high standard of consumer participation is needed to support the supplier in imparting the outcome of a service. This includes not only education but also training and health services where the customer studies, does exercises, and eats sufficient food, to affect the nature of the outcome of the service (Gallan, Jarvis, Brown, & Bitner, 2013).

Romero and Molina (2011b) noticed that suppliers and consumers can engage at different points in time to co-create value by co-creation experiences which do not only happen at the point of

exchange. They can occur throughout the life of the service and may concern other parties besides the provider and the consumer (e.g., members of brand communities, shareholders, or partners of the provider) (King et al., 2019). At the point of exchange, for example, customers can engage in the pricing of goods and services online by becoming involved in online auctions for hotel rooms and airline reservations; or using self-checkouts at gas pumps, automated teller machines (ATMs), supermarket checkouts, and so on, as part of the expanding process of value creation (O'Connor, 2019).

Plouffe, Nagel, Bonney, Hochstein, and Salas (2020) added to the argument by stating that customers can engage to create value at the points of ideation (idea generation) and in the process of product concept development. For example, combined discussions can be performed by the providers to adequately and expertly co-create value for the consumers. Social media can be utilized by the providers to obtain the consumers' input in the ideation stage (Trischler, Dietrich, & Rundle-Thiele, 2019); meanwhile, during the concept development stage, a similar input can be collected from the consumers by splitting the ideologies with them. Consumer engagement under these conditions can save time and expenditure as well as decrease the risk of failure of the new product or the service (Troccoli & Felizardo Jr, 2020).

2.7.3 Integrated Process Model for Customer Participation in Service Exchange

It is noticed that a consumer's experiences of service depend on three value-creating activities that is, relating, conversing, and perceiving, which are then applied to make a better Service-Logic of exchange. It is also debated whether a customer's value-in-use starts with the enactment of the value proposition, which should be carefully developed to promote betterment (Rodriguez, 2020). However, researchers have also described value-in-use "as an individualized (or different)

assessment that is on the spot independent of the social context in which the reciprocal service supply originates” (Rodriguez, 2020)

The implicit supposition of value-in-use is that the firm has no right to play – it involves the customer alone (Grönroos & Ravald, 2011) – but it does not bring clarity that it must be the case, given possible alternative interpretations of what customer participation in the value proposition creation process entails. Here it is important to consider the practical implications of customer participation in the value proposition creation process. For this purpose, an integrated procedure model for customer participation in service exchange is drawn from this study and is shown in Figure 2.6

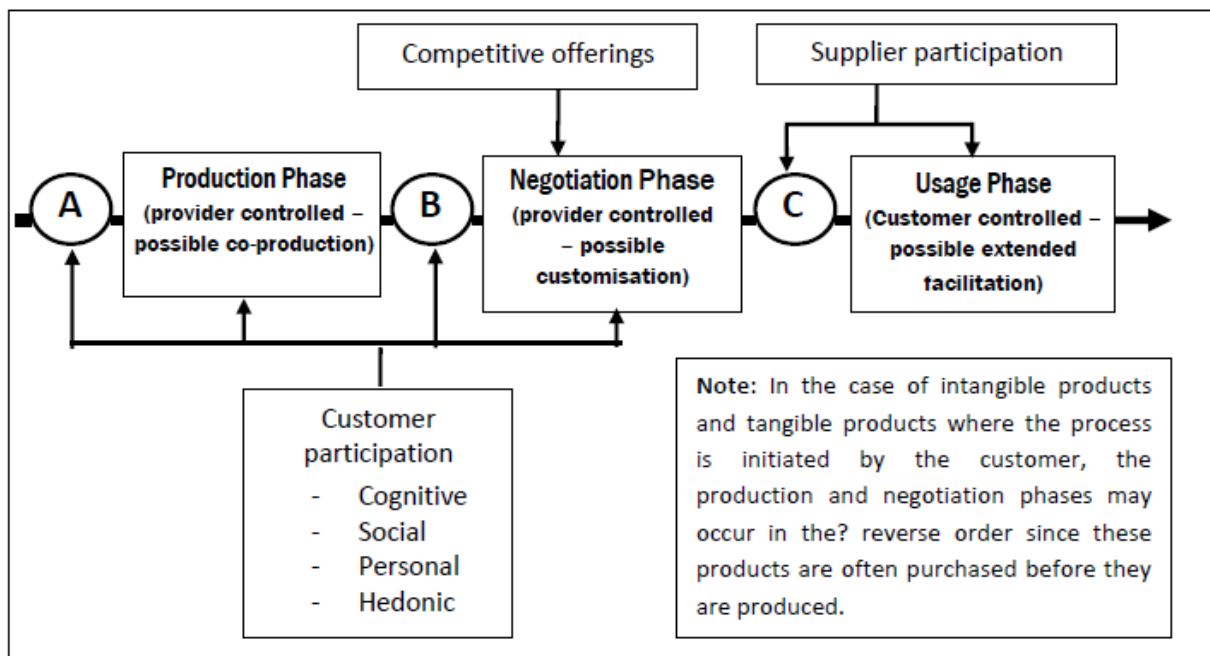


Figure 2.6: Integrated process model for customer participation in service exchange (Ranjha & Muqqadas, 2015)

Figure 2.6 shows a service exchange existing between a firm and a customer. A service exchange is a procedure in which firms and customers try to sell and purchase service. Although customers may purchase either factual or nonfactual products, what urges customers to become involved in

exchange and purchase these products is the utilization they want to get from their purchase in fulfilling their specific needs and requirements. That is, service is done by customers' consumption when they purchase goods or services (Iglesias, Markovic, & Rialp, 2019).

It is pointed out that the firm is in control of the first two phases, the production phase permits customers to co-produce, and the negotiation phase is arranged for suitable service customization. The usage phase is controlled by the customer but permits a firm's facilitation of value-in-use. The model shows four points of possible customer performance in a service exchange.

2.7.4 Context of the Study

Referring to the characteristics of service product and the service activity perspective, e-learning is categorized as a credence service, the quality of which is highly challenging for e-learners to assess due to a lack of expertise in e-learning institutions (Mackay, 2008; Okem, 2010; Wright, 2015). It is evident from the literature that there is only one study that describes how e-learners can participate through different e-learner value co-creation styles during the process of value creation, to create value for themselves, in terms of improving their student experience (Agbenyeku, 2017). All studies mentioned in the literature related to e-learner participation in education, primarily focused on different models.

To date, there has been no study available which could assist in understanding how the quality enhancement of e-learners can be improved through e-learner participation in the provision of support services, for instance through learner support services. This is a major gap identified in the literature, which should not be ignored. Learner support services here refers to purely supplementary services provided to the e-learners by the university, and includes services like: prospective support, which includes information and course guidance support; start-up support, which includes initial follow up and technical support; learning support, which includes teaching

support, academic support, social support, assessment support, library support, learning group support, administrative support, counseling support for further study, support for job opportunities, and alumni support (Alzahrani, 2020; Karra, 1995; Wedin & Saxin, 2020).

To explore the concept of co-creation involving e-learner participation in learner support services provided to improve the student experience of e-learners, this study is conducted in the context of VU in Pakistan. The scales used to measure the constructs used in this study, including the e-learner participation in learner support services and quality enhancement in student experience, are discussed in detail in Chapter 3.

2.8 VU of Pakistan

Key issues persist due to previous education of learners, interaction and communication gap between instructor and e-learners, demographics issues, administration issues in student facilitation center, incomplete study material, monitoring and control, and administrative services (Mangan, 2019; Volchok, 2019; Xavier & Meneses, 2020). Thus, there is a vital need for an appropriate mechanism and supervision along with monitoring and control to improve e-learner participation in learner support services, so that the quality enhancement of e-learners in Pakistan, could be improved.

The current study is conducted at the VU, which is the first federal e-learning university, head office located in Lahore, which was inaugurated in 2002.

2.9 Research Framework

2.9.1 Student Participation in Support Services Provision

Based on the previous discussion, e-learning educational services and their evaluations are characterized according to their credence qualities and the credibility of providers of these services (Luo, Zhang, & Zhang, 2019; Pemer & Skjølsvik, 2019). On the other hand, the focus of this study

is on quality enhancement of e-learners or student experiences that supplement core e-learning activities. This study can be characterized by qualities of the student experience, like evaluations from students, that are taken after consumption (Poromatikul, De Maeyer, Leelapanyalert, & Zaby, 2019).

Marketing environmental design with intrinsic and extrinsic dimensions influences the evaluations from the students and the standards of quality they received (mental stimulus processing) (Farhadi, 2019). The internal environment involves the complete organizational structure where administration and the teaching faculty mutually create, deliver, and communicate the service (Boutsika & Kadianaki, 2019). The external environment includes student facilitation centers as well as external communications. Moreover, the students' perception of their associations with faculty depend on quality matters, along with the environment of innovative design where online services are produced and delivered (Stephen, 2020).

Service providers can interact with the students to identify students' special needs to provide them with appropriate support services (Rothwell, Williams, & Zaballero, 2020). It is also argued that students can also participate in the provision of student support services to improve their perceptions about the quality of their e-learning experience. Furthermore, service provider and student participation in student support services provision can optimize customer value in the value-in-use stage (Huffman, 2019; Mahure, 2020).

Approaches to quality of e-learning have shown that the exchange of information and the accessibility of student support services are important factors in e-learners' perceptions of the quality of service (Dhurumraj, 2019). Exchange of information provides the student with a better opportunity to evaluate the quality of student support services (Young, 2019). For example, face-to-face interaction between the service providers and students can encourage them to participate

in the service production and delivery process. Students using student support services are in a better position to participate in activities that can improve these services and help them to create value.

Students can participate in student support services by asking questions, informing the service providers about their specific needs, sharing their experiences, and providing feedback about the quality of student support services provision, as well as suggesting ideas to improve student support services provision (Vasconcelos, Furtado, Pinheiro, & Furtado, 2020). Students' participation in student support services can therefore assist HEIs in designing a market strategy for service delivery (Lane et al., 2019).

Various researchers stated that psychological, social, and informational factors improve the e-learning experience of e-learners (Kurth et al., 2019). Therefore, in addition to the discussion about student participation in student support services, marked importance is also given to the e-learners' participation in improving their learning experience (Lugosi, 2019), which is discussed in the next section.

2.9.2 Student Participation in Quality Enhancement of E-Learning

Ehlers (2004) stated that the learning process is not a service which is needed to be provided by the supplier, but it is a process of co-production created with the help of the learner and learning environment.

There is a need that the students should interact with the service provider to communicate freely about seeking social, interpersonal, and informational support from them (Kim et al., 2019). The relationship between instructor and e-learner is a set of interactive activities and experiences accomplished by supplier and e-learner based on the notion of value co-creation backed by service logic (Puška et al., 2020). It is observed that the service provider and e-learner have a positive

relationship with student learning outcomes, that is, quality enhancement of e-learners (Vaz-Fernandes & Caeiro, 2019). Students can participate to improve their learning experience by communicating with other students and sharing experiences of collaborative learning, managing their semester activities and study patterns, forming friendly relationships with other people, building self-efficacy, and maintaining self-esteem (Sarker et al., 2019).

In the context of quality enhancement of e-learners, student involvement can drive a series of benefits both for the provider of services and e-learners: a) it provides understanding regarding students' perception about their learning to service providers; b) it delivers an opportunity to solve the problems collectively c) it will guide the students in such a way that there will be fewer complaints; d) there is no other stakeholder other than the e-learner who knows what they need and what is not available to them; e) e-learners have complete control over their studies; and f) by value co-creation, students can improve their learning outcomes (Farhan, Razmak, Demers, & Laflamme, 2019). The extent of student involvement may depend upon the students' previous learning experience, demographics, and the social and cultural values of an individual student (Kember, Douglas, Muir, & Salter, 2019).

The student–supplier relationship signifies all of the below-mentioned five main aspects (Freeze, Alshare, Lane, & Wen, 2019):

- a) Student facilitation center – where student participation in learning activities with the supplier and e-learners make joint decision making regarding quality matters (Venkatesh et al., 2020).
- b) Interaction with faculty members – where e-learners are expected by the instructor to give their contributions in terms of ideas.

- c) Consultation – In this phase, e-learners are asked about their views regarding the service delivery by taking feedback from them (Rodrigues, Almeida, Figueiredo, & Lopes, 2019).
- d) A complete academic schedule regarding semester activities – where service providers are concerned to inform the e-learners about their semester activities, and their participation in assessment is compulsory in terms of evaluations and other graded activities.
- e) Information as a complete academic schedule – where e-providers tell the students about the plans that they have already made to carry out a certain task and students are likely to show more participation via semester activities including exams.

Student participation has been measured through complete academic activities structured by University Academic Counsel Team who have previously conducted a complete semester activities calendar (Vizoso, Arias-Gundín, & Rodríguez, 2019). Based on the above discussion, it can be argued that student support activities and quality enhancement processes share similar domains, like the social and psychological aspects, which can be improved through an exchange of information. Hence, student participation in student support services provision, in addition to improving the quality of service provision, can also improve their perceived quality enhancement process through the student learning experience, which is discussed in the next section.

2.9.3 E-learner Participation in Learner Support Services and Quality Enhancement of E-Learners

It is stated that student support services influence e-learners' comfort, thus improving the e-learner' quality of learning (Mousavi, Mohammadi, Mojtahedzadeh, Shirazi, & Rashidi, 2020). Students have more knowledge about their needs and requirements than others, which can contribute to the effective development of student support services into value creation (Ilgaz & Gülbahar, 2020). E-learners can participate in student support services provision by informing

the service providers of their desired needs, and benefit from a customized service by gaining the desired outcome from its usage (Goosen & Van Heerden, 2019).

E-learner participation in student support services can make e-learners better aware of their level of participation and the requirements that they have of this system (Arunachalam, 2019). E-learner participation in student support services may also allow customers to benefit from social integrative, personal integrative, cognitive, and affective benefits (Pham, Vu, & Tran, 2020); hence, improving student support services in the provision of and quality enhancement process.

Universities can conduct feedback to get students' evaluations, which enables students to analyze the university's service quality and present their suggestions to service providers; students can view the feedback as a sincere attempt to help university management improve the quality of education and students' learning experience (Bigirwa, Ndawula, & Naluwemba, 2020). Students can participate in social activities through student week and exchange information which can improve student support services as well as their mental health, and give greater institutional satisfaction; therefore, having a positive effect on their learning experience (Kibuku, Ochieng, & Wausi, 2020). Additionally, by acting as an 'expert student,' a student can counsel and encourage other students studying in the same class or subjects to improve their learning experience (Bhaskaran & Santhi, 2019; Shuja, Qureshi, Schaeffer, & Zareen, 2019). To increase e-learner participation in service provision, it is necessary that educational professionals redesign their educational strategies, encouraging students to express their needs and concerns regarding aspects that could improve their learning experience (Shi, Wang, Xing, & Xu, 2020).

Considering the above literature, a need has been identified to explore student participation determinants which may encourage e-learners to participate in the service exchange process

involving student support services and to improve their learning experience. The next section shows the development of a service exchange model of student participation to achieve this task. The review of the literature has led to the formulation of the research propositions, to guide the research in the exploratory phase of this thesis.

Few researchers focused on first-year experience and investigated the provision of some specific set of services that could contribute to improving the e-learner experience. When students select to study in an e-learning environment, they do not know what type of challenges they may face in their initial education phase. The e-learning system can become a challenge for those whose previous learning experience did not include technological pedagogies, especially in Pakistan up to graduation level, where most students are computer illiterate or have not had hands-on practice, and they face problems in their first year of e-learning (Aragona, 2019; El-Ghali & Ghosn, 2019). To date, student transition to e-learning in the context of Pakistan has been not available. As an alternative, much data relating to the first-year transition is considered to generate an idea of e-learners' training on campuses (El Miedany, 2019; Richardson, Sheeks, Waller, & Lemoine, 2020). There is a need to focus on some key elements which can contribute to the student experience of e-learners, like self-efficacy, system literacy, and time management (Mangan, 2019; Mbah, 2019).

2.9.4 Gaps in the Literature

Gap 1: Ellahi and Zaka (2015b) conducted a study in which they tried to match the e-learning policy issued by the HEC of Pakistan against literature. They found that a very large-scale technological initiative of the Government of Pakistan is incomplete and the HEC of Pakistan has failed to provide policy guidelines on e-learning; however, the HEC website provides complete information regarding conventional system policies and procedures and pandemic-based policies,

which were made on an urgent basis, which are provided by links to international e-learning institutes because Pakistan has not produced its own culture-based, traditions-based, necessity-based policy guidelines on e-learning. Though it is appreciable that the administration of VU has structured much better systems and policies of their own, their contribution can never fill the role and responsibility of HEC, especially to issue the rights of e-learning students. The mode of e-learning education is dynamic, due to rapidly changing technology and continuous improvement in communication technologies; another reason for the communication system in VU to evolve is that VU has diverse students in terms of their demographics, culture, previous learning experience, and e-readiness, some are overseas students, some are part-time students, and there is no age limit on admissions; so, the administration faces a challenging situation to give world-class study material and communicate through latest communication means. In the present scenario, the self-assessment report to HEC is not the only solution, an academic audit within the institution that excludes students is not sufficient, there is a need to conduct an academic audit that includes a qualitative review by students, as important stakeholders, which has not yet been initiated. Value co-creation is a joint effort that will bring e-learners and administration closer together and will help in bridging the communication gap. By taking the students' reviews, an understanding of the requirements of students/customers will lead to quality enhancement of e-learners. In this way, HEC would bring immense potential to pick up the pace towards the cost-effectiveness of online systems. Ellahi and Zaka (2015a) concluded that future research can conduct a case study of any institution that has initiated an e-learning program.

Gap 2: Uden, Liberona, and Welzer (2015) suggested the overall quality of online education depends upon students' interaction and communication with lecturers, administration, and with peers. In order to enhance the strategies for expansion, bringing innovations and concentrating on

monitoring and control along with taking feedback or quality review from stakeholders, which is a co-creation approach, can play an important role. By focusing on the ideology of value co-creation, academic experts do not have to rely only on internal factors, like organizational culture, but can try to include external factors like state authorities to truly evaluate their performance; so, the need to review their continuous improvement cycle may be considered. In this dynamic mode of education, the number of e-learners is increasing day by day due to continuous improvement and advancement in communication technologies. These communication technologies if properly used and combined with the co-creation approach, will lead to customized service models that contribute to e-learners' success in online learning. This will also bring economic solutions and extensive community implications in this global village. Uden et al. (2015) indicated that an e-learner and an academic expert can create value in terms of a student's enhanced experience. They can interact with each other to co-create the worth for a conducive e-learning environment; e-learner involvement determinants reveal positive impacts on e-learners when e-learners are integrated with academic experts in this value creation process.

Ehlers (2004) referred to value co-creation as an exchange process, in which there is an equitable exchange between e-learner and academic expert. Customer involvement in value co-creation is needed to form an e-learning model that depicts the thriving integration of e-learner and processes with academic expert value creation.

Gap 3: There is a need to know the most important stage where the value co-creation by an academic expert with an e-learner can be initiated; to initiate the process of value co-creation at the induction stage of e-learners in the first year of e-learning can help to make the whole environment of online education more understandable, convenient and satisfactory, but there is a need to know how the environment of co-creation can be established (Angelis, 2017;

Soobramoney, 2019) because students' attrition rate is very high in this first year of e-learning (Fraser, Atkins, & Richard, 2013). The provision of learner support services can play an important role in satisfying e-learners (Sánchez-Elvira Paniagua, Resa López, & Hiraldo Trejo, 2013).

Today, e-learning universities focus on the target market and create a transitional environment by making sure to provide a set of learner support services with the help of academic support so students feel comfortable and have helping hands in their new e-learning environment (Dennen & Bagdy, 2019; Mohan, 2019). Taking into consideration the importance of quality enhancement of e-learning in Pakistan, there is a need to study the implications of the integrated process model of customer participation within student support services provision.

2.9.5 Research Questions

From the gaps in the literature, the following research questions are formulated for this thesis:

RQ1 What are the determinants of e-learning students' participation in the provision of student support services in Pakistan?

RQ2 What is the relationship between the student participation determinants and e-learning students' experience in student support services?`

What is the relationship between student participation determinants and the quality enhancement of e-learning students?

RQ3 What is the relationship between student participation in student support services and the quality enhancement process of e-learning students?

2.10 Chapter Summary

Service as a process of doing something in cooperation with other parties, in contrast to goods-dominant logic, which are included in service as units of output, is considered value co-creation (Vargo et al., 2008). Value creation in e-learning services, including the quality enhancement

process, covering the education aspects, has already been discussed in the service literature. Participation in service provision has received a proportionate share of attention in service logic literature.

The literature review conducted in this chapter revealed that, based on the service logic concept, creating customer value through customer participation has a large significance for the service industry. It also established that services have fundamental differences, compared with tangible goods, through studying goods through service logic. Thus, we may draw upon, and benefit from, the value co-creation concept and prior customer value and e-learners participation research, it is necessary to cast a critical eye over this theoretical base and ascertain the degree of applicability and appropriateness of these to the different e-learning context.

To conclude, conceptual and empirical attention to the value creation procedure, based on the value co-creation framework, involving improving quality enhancement through customer participation in student support services provided to e-learners has not yet been observed; whereas a primary focus on value creation practice from the value-in-use point of view has been studied in general. Given this lack of understanding, while identifying the inconsistencies/gaps in that literature, an exploratory approach grounded on the qualitative method, the 'Model of e-learner participation in service exchange' is considered in the perspective of e-learning students regarding the VU of Pakistan. This is further elaborated in the next chapter, which deals with the methodology for this research.

CHAPTER 3: METHODOLOGY

This chapter explains the population, sample, sample size, data collection techniques along with its analysis. In this study, e-learners and e-learning experts of the VU of Pakistan were selected as the population and 21 students and one expert were selected as a sample for a detailed interview. Upon discussion of the approach used, the research worldviews or paradigms are discussed, which is followed by the justification to adopt a qualitative approach for this investigation. The selection of an exploratory approach guided the investigator to choose an exploratory sequential design, which reviews the procedures selected for conducting this study. This chapter also discusses the interview protocols, sample and sampling methods, procedures, and a summary of the data analysis for the qualitative component of the research project. Then, ethical considerations are addressed. Finally, validity issues are discussed for conducting a qualitative research study.

3.1 Introduction

It is also very important to consider which research method or methods will be appropriate for contributing knowledge to this research. It is also very important when doing research to consider what assumptions are present. In this segment, the analyst walks through the assumptions of philosophies and their strategies. For this purpose, general philosophical assumptions are discussed in Section 3.2 based on a detailed review. The designed framework for this study was determined by qualitative paradigms. This segment will emphasize exploring, accumulating, and analyzing research designs and methodologies. The detailed interview with e-learning students, as participant observation, and academic expert was used for data collection. NVivo 12 was used to analyze the descriptions and interpretations from observation; the case studies method was one of the qualitative research instruments. In the current research, justification for the data collection method has already been discussed.

In short, the appropriate criteria for this exploratory study are explained to ensure the trustworthiness of the research.

3.2 Selecting a Research Paradigm

A paradigm is a distinct set of concepts or thought patterns, including theories, research methods, postulates, and standards for what constitutes legitimate contributions to a field. When the topic of study is decided the next step is to select the paradigm through which we can investigate our study. Our realistic approach explains the rationale behind our examination for which the findings turn out to be pragmatic. Every scholar has his or her understanding of what represents facts regarding knowledge. A paradigm is an approach that is often used in the social sciences; it guides us about existing beliefs, assumptions, and shows us the world around us in our belief's frame (Creswell & Báez, 2020; Norwich, 2020).

“The Structure of Scientific Revolutions,” published in 1962, is a monograph written by the social scientist Thomas Kuhn; Kuhn used the word ‘paradigm’ in two different scenarios: a) It is a specific or particular way to think about a phenomenon, which is given by a group of scientists for solving a problem in their respective field of work; b) it represents methods, values, beliefs, commitments, outlooks which are shared across a single discipline (Jorgensen, Boulet, & Hoek, 2020; Lemoine, Hartnell, & Leroy, 2019).

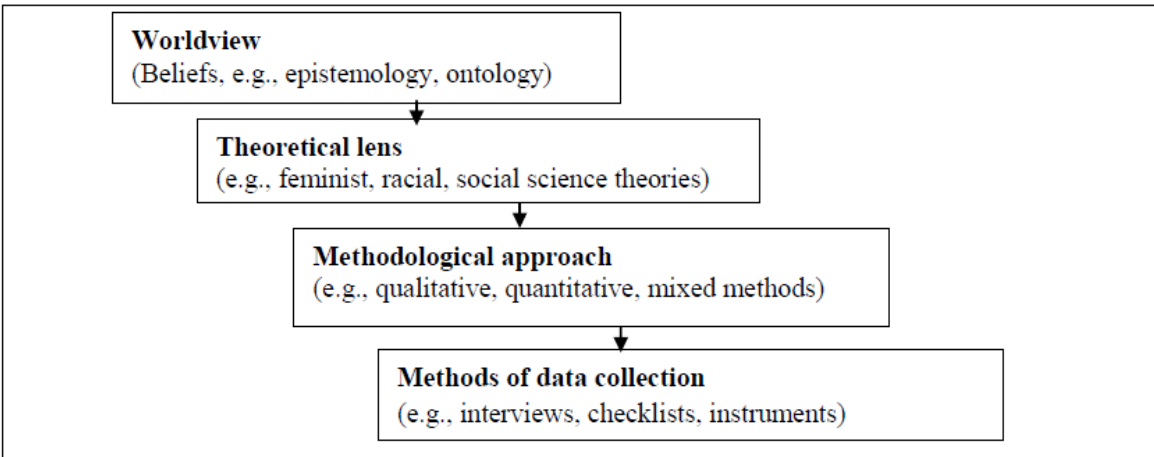


Figure 3.1: Four levels for developing a research study (Schlüter et al., 2019)

Figure 3.1 depicts the four central branches to draft a research study. The worldview informs the selection of a theory which the researcher uses. The theory guides the researcher to choose the methodology or research strategy to conduct the research. The accumulation, scrutinization, and explication of the data emerge as appropriate as per the methodology applied (Schlüter et al., 2019).

When designing a research study, constant variations are observed in the methodology and methods (Fairfield & Charman, 2019). According to the philosophical approach of the researcher, methodology and methods share combined relationships which investigators normally use to define them in different ways (DePoy & Gitlin, 2019; Ghiara, 2020; Neubauer, Witkop, & Varpio, 2019).

The analyst perceives ‘methodology’ as to when he/she structures the research questions along with choosing the process and methods to be used, whereas ‘method’ refers to the tools which the researcher uses to gather and examine the data (Kumar, 2019).

The basic belief system of each of the four main worldviews is summarily characterized based on existence, the rationality of belief, intrinsic values, theoretical analysis, and eloquence. Existence

relates to ontology, such as assumptions held about the nature of reality and issues concerning being and with what exists (Koyzis, 2019). The rationality of belief refers to epistemology regarding the nature of knowledge (Baggett & Walls, 2019). Intrinsic values refers to consideration of the role of axiology in depicting the values in the study (Priest, 2020). Theoretical analysis refers to the methodologies of research and eloquence is the language of the research or writing style noted as being rhetoric (Hadot, 2019).

Basic characteristics of four worldviews used in research

	Post-positivist Worldview	Constructivist Worldview	Participatory Worldview	Pragmatist Worldview
Ontology (What is the nature of reality?)	Singular reality (e.g., researchers reject or fail to reject hypotheses)	Multiple realities (e.g., researchers provide quotes to illustrate different perspectives)	Political reality (e.g., findings are negotiated with participants)	Singular and multiple realities (e.g., researchers test hypotheses and provide multiple perspectives)
Epistemology (What is the relationship between the researcher and that being researched?)	Distance and impartiality (e.g., researchers objectively collect data on instruments)	Closeness (e.g., researchers visit participants at their sites to collect data)	Collaboration (e.g., researchers actively involve participants as collaborators)	Practicality (e.g., researchers collect data by “what works” to address research question)
Axiology (What is the role of values?)	Unbiased (e.g., researchers use checks to eliminate bias)	Biased (e.g., researchers actively talk about their biases and interpretations)	Negotiated (e.g., researchers negotiate their biases with participants)	Multiple stances (e.g., researchers include both biased and unbiased perspectives)
Methodology (What is the process of research?)	Deductive (e.g., researchers test an a priori theory)	Inductive (e.g., researchers start with participants’ views and build “up” to patterns, theories, and generalizations)	Participatory (e.g., researchers involve participants in all stages of the research and engage in cyclical reviews of results)	Combining (e.g., researchers collect both quantitative and qualitative data and mix them)

Rhetoric (What is the language of research?)	Formal style (e.g., researchers use agreed-on definitions of variables)	Informal style (e.g., researchers write in a literary, informal style)	Advocacy and change (e.g., researchers use language that will help bring about change and advocate for participants)	Formal or informal (e.g., researchers may employ both formal and informal style of writing)
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Table 3.1: Basic characteristics of four worldviews (Creswell, Klassen, Plano Clark, & Smith, 2011)

The research comprises systematic observation and description of phenomena, contextualized within a model or theory, the presentation of hypotheses, the execution of the tightly controlled experimental study, the use of inferential statistics to test hypotheses, and, finally, the interpretation of the statistical results in light of the original theory (Lord, 2019; Thompson, 2020; Tjueza, 2020). The axiology is unbiased because the researchers use checks to eliminate bias and the rhetoric employed for the research report is formal (Lange, 2019). The benefits of this approach include ease in data collection and analyses within a short period. However, it is difficult to recognize subjective issues like perceptions, beliefs, and motivations (Barletta, 2019).

The ‘social constructivist worldview’ is used to determine truth by implementing qualitative research techniques. The constructivists are of the view that individuals have different views and meanings regarding the same situation, and their opinions should be valued. These varied opinions are based on the social, cultural, and historical interactions of individuals (Zhao & Selman, 2020). Researchers agree that biased results are more likely if the researcher’s background intervenes with the interpretation of the research data (Kaushik & Walsh, 2019). Social constructivist researchers actively talk about their biases and interpretations, and the research outcome is reported in an informal way (Huang, Yang, & Li, 2019). This approach is beneficial since it allows for a deeper understanding of the attitudes, beliefs, and motivations of individuals. Shortcomings include more time required to collect data, difficult access to each subject of the population involved, and the complexity of the analysis (Silverman, 2019). In addition, researcher biases is a

shortcoming due to more concern with qualitative rather than quantitative approaches (Jalbert, Rahardjo, Yashadhana, Liew, & Gopinath, 2020).

Table 3.1 summarizes the four worldviews, which can be blended or used separately in such a way that a person can use them to provide theoretical assumptions for their under discussion study. These worldviews are termed as positivist, interpretative, emancipator, and indigenous research paradigms (Harrison, Reilly, & Creswell, 2020). Quantitative or post-positivist approaches consider that truth is revealed objectively by accepting a singular reality (Harrison et al., 2020). Interpretivism believes that every human has her or his views and beliefs regarding the single factor situation and their judgment must be valued. That is why interpretivism entails the finding of qualitative methods.

Social justice problems are omitted by other worldviews but catered for and given preference in participatory worldviews. Political issues are powered by legislative concerns and different political researchers agree with this assumption (Harrison et al., 2020). Marginalized groups can take benefit from this approach after viewing and analyzing the research results from these kinds of studies.

3.3 Paradigm Adopted

Research design is related to the structure of research that defines how a researcher conducts his/her research. It explains all the major areas of research including population, sample, sample size, and research techniques which are utilized to address research questions. Research design is just like an architectural structure. The research design relates to the planning of the study in such a way that all elements related to the research are integrated so that the understanding and reliability of the research can be maximized.

Lynch-O'Brien (2020) concluded that the research design helps in planning, structuring, and executing the research activities in such a way that no one can challenge the validity of the findings of the research. Besides, it also covers logical assumptions and data collection techniques. Lynch-O'Brien (2020) stated that research design is an action plan for collecting the answers to the research questions. van Schalkwyk and Dewinter (2020) explained that qualitative research is more closely connected with the case study.

3.3.1 Qualitative Inquiry

This research is based on an interpretive philosophy, which explains that social rules are not only the essential principles but human experiences are also important in resolving any social issue. This philosophy also provides multiple solutions to one common problem, which is in contrast to positivism in which we have only one 'truth' against a given problem. Blaikie and Priest (2017) and Rowe (2018) stated that the results of interpretive research are based on people's experiences which are established on their social, cultural, historical, and linguistics norms.

This interpretive research does not expect one common solution from all students because they have different social, cultural, and historical backgrounds; so, multiple solutions to one common problem are possible. For example, in technology-enabled areas, problems of students' understanding can be resolved through online interaction. Rosenberg (2018) explained that in interpretive research there is no particular methodology to address social problems. Günbayi and Sorm (2018) claimed that in interpretive research, theories are neither accurate nor wrong; the application of interpretive research theories in a study is based on the knowledge and interest of the researchers. Nielsen (2019) explained that interpretive knowledge is based on the interpretation of the scholar, so there is no accurate knowledge that is free from biases. Günbayi and Sorm (2018) believed that authenticity of interpretive research is possible only through social interaction. The

interpretive study is strengthened by reflection and clarification, its conclusion is based on collected facts and its pattern (Jackson, 2016). In interpretive research, the methodology is based on the people involved in the study (Sovacool & Hess, 2017).

3.3.2 Strategy Adopted

The objectives of the research are to examine the experiences, insights, and beliefs of e-learners in Pakistan. Levitt et al. (2018) concluded that qualitative research is the best tool to conduct a study where the research variable has not yet been identified. Hence, qualitative research is most suitable for this study because it is based on the experience of e-learners.

3.3.2.1 Case Study as a Research Strategy

Ridder (2017) suggested three research strategies for finalizing case study-based research. These are exploratory, explanatory, and contemporary. In exploratory research (what), studies are based on problems which are not clearly defined, whereas explanatory research (how) explains the actual reason for the existence of a phenomenon, and contemporary research relates to issues of the modern era. This study covers the domain of all three strategies because in Pakistan there is little or no working on e-learning, relationships among different e-learning variables are not identified, and, lastly, e-learning is a phenomenon of the current era and there is less information available about it. Besides, a lack of accessibility of data and scarce historical records of e-learning (in this region) are also reasons to use qualitative research to explore the research problem. The multiple research strategies are a fundamental reason for utilizing a case study as a research tool.

Duff (2018) suggested that case studies are the most appropriate way when there is little or no information available regarding a phenomenon, or when available information has limited empirical evidence. Because 'online education' is continuously evolving, there is very little information regarding e-learning, especially concerning new intakes (because they face more

issues). Besides, there is a gap in the literature about the relationship between students' expectations and online academic facilities, which creates a deficiency in the quality of online education. These gaps in e-learning literature guided me to use a case study approach in my research.

3.3.2.2 Instrumental Case study

This research is based on an instrumental case study. In an instrumental case study, researchers focus on the issue of a particular person, particular department, or particular organization (Stutz & Sachs, 2018). This case study is based on online students' experience of the VU of Pakistan, a federal public sector university. In Pakistan, automation facilities are not available throughout the country and people are not fully aware of IT, so research in e-learning of developed countries does not apply to Pakistan. The purpose of this case study is to explain the determinants of quality enhancement in student experience from students' perspectives because present theories are mostly based on the researcher's perspectives which consider only limited aspects. In a case study, one cannot generalize the findings of one's research to all people or institutions; however, the findings can be helpful to other case studies (Chambliss & Schutt, 2018; Graham, Kothari, & McCutcheon, 2018).

3.4 Methodology

The present study maintained a focus on the perceptions of e-learning students. The students for this study are working adults who are enrolled in different programs of VU. These online programs do not have blended or hybrid platforms; rather, these degree programs provide the whole education through online tools (Wongwatkit, Panjaburee, Srisawasdi, & Seprum, 2020). People who do not have sufficient time to attend regular classes due to their social or economic

engagements represent the typical students for whom it is widely proposed that e-learning is the most convenient and appropriate mode of delivery.

3.4.1 Participants in the Study

The participants of this research are the e-learners of undergraduate and master programs in the VU of Pakistan. Besides course instructors, administrators are also an important stakeholder of this study. This research is based on purposive sampling. In a purposive sample, the researcher selects the sample based on his/her judgment (Jannah, Prasajo, & Jerusalem, 2020). It means sampling is subjective or not random. Purposive sampling normally takes place when the researcher focuses on the more informative participant (Al Azmeh, 2019). Purposive or subjective sampling is the best sampling technique in qualitative research where researchers consider only those participants who have rich information which is related to the area of concern of the study. Al Azmeh (2019) stated that common patterns that reflect variation are the outputs of qualitative research.

Included in this study

- 2 to 3 students from first semester students, 17 students studying in 7th and 8th semester (under-graduate, graduated students doing Masters, M.Phil students doing MSBA from Virtual University)
- 18+ Adults
- Both males and females (to remove bias)

Not included in this study:

- limiting the number of students from the initial semester.
- Under 18 (minors)

- students having limited exposure are not included for interviews.

3.4.2 Sample Recruitment Strategy

The participants (both e-learning expert and students) for the qualitative study were selected by the researcher's supervisor, using a purposive sampling method. The sample size for this qualitative research was based on the attainment of new information by keeping in view the law of diminishing returns. Froehlich, Van Waes, and Schäfer (2020) concluded that the cost per information is increased by increasing the sample size. The selection of participants included e-learning expert and online students based on the information provided by the VU of Pakistan.

In qualitative research, only those people are preferred as a sample of study who can explain the nature of the attributes of the research area (Froehlich et al., 2020). In this qualitative research, the sample was selected to get the deep information required for a descriptive study (Beigzadeh, Bahaadinbeigy, Adibi, & Yamani, 2019). Therefore, the study utilized a purposeful sampling method in which the particular research locations and participants are selected by the researcher to increase the probability of getting the right information about each research question (Waheed, Hussin, Khan, Ghavifekr, & Bahadur, 2019). In general, the sample size of qualitative research is smaller than a quantitative study (Waheed et al., 2019). Kissi, Dai, Dogbe, Banahene, and Ernest (2020) suggested that the preferable sample size of qualitative research should be 1 to 25. Donkor, Lockett, Aranda, Vanderpuye, and Phillips (2020) recommended that the sample size of a qualitative study should be 5 to 25. Donkor et al. (2020) explained that there is no ideal sample size for qualitative research, they suggested that researchers should focus on the collection of reliable information in a qualitative study which is free from biases or individual points of view, and the researcher should also consider the cost of resources required for getting information from additional participants.

Based on the previous qualitative research literature, a sample size of 22 participants was selected by using the purposive sampling technique, so that detailed information could be collected for the research outcome. Semi-structured interviews were conducted to get maximum information from the selected participants. Initial participant information was collected through campus managers, websites, and peers.

Further details about the methods and procedures adopted for this research are discussed below.

3.5 Qualitative Component

3.5.1 In-depth Interview with E-Learning Expert

The study consisted of a preliminary semi-structured interview with an e-learning expert. Conducting a detailed interview with an e-learning expert involved in the provision of services is justified. A planned online interview was conducted with the Registrar of VU at the decided time. The objective of this interview was to develop the reliability of research findings by involving all major stakeholders (Tekakpınar & Tezer, 2019; Tekakpınar & Tezer, 2020).

While the researcher needed to value affective dimensions of the e-learner/consumer services, information sourced from knowledgeable specialists guided the research towards emerging issues that needed to be accounted for in the theory development (Soobramoney, 2019). For example: How should the participation request be addressed and structured to induce a response from the highly scattered population? In Pakistan, the majority of e-learning beneficiaries living in remote areas. It was very important to interview students from remote areas. These interviews yielded important information for successful identification of challenges or impediments that needed to be addressed in interviews with the e-learning students, hence assisting in the development of an effective interview protocol for the study.

3.5.2 Interview Protocol for E-Learning Expert

The interview protocol for the in-depth interview with the e-learning experts was developed from a review of the relevant literature. The ‘Initial Interview Protocol’ used to conduct the face-to-face in-depth interviews with the e-learning expert was approved by the Superior University Human Research Ethics Committee. The interviewer followed a topic guide to make the discussion and interview flow systematically and naturally, and to facilitate appropriate probing (Alharbi, 2019; Papathoma, 2019).

Initial Online Interview Protocol for E-Learning Expert Virtual University

1. Introduction

The interview will be started with an acknowledgment note by the interviewer. After that the interviewer will introduce herself and briefly explain the objectives of the interview. The interviewee can ask questions about any reservations he/she may have before the start of formal communication. The interviewer will establish ground rules for the interview:

- All conversations during the interview will be kept confidential.
- The objectives of the interview will be disclosed to the participant.
- The participant’s views will be respected.
- The timeline of the interview.
- Later on, the participant can contact the interviewer, if he/she wants to get information about his/her interview.
- The arrangement of recording devices.

2. Discussion Questions

The participant will be asked to answer the following questions:

- Do you have quality guidelines available to run the institution of e-learning? If not, then on which grounds do you monitor systems of quality assurance and quality enhancement?
- Which type of governance structure do you follow to run the institute?
- What prerequisites are necessary for launching a course?
- What are your arrangements for orientation day?
- How can the student facilitation center help you to build a strong image of Virtual University?
- How do you resolve students' grievances?
- What are the Terms of Reference of your statutory bodies?
- What is your hiring process?
- What is your student-teacher ratio?
- Can you please tell me the counseling services procedures for students?
- How do you monitor the quality of your courses?
- How do you conduct training programs for faculty members?
- How do you handle a variety of students?
- What is your course updating process?
- How does the faculty improve its knowledge and skill?
- Do you have weekend support facilities for the working class?
- Can a proper induction of blended learning systems enhance the learning experience of students?
- What are your challenges in research programs?

- Do you think that the quality of assessment was affected due to the availability of the online manual of past exam papers?
- How can student facilitation centers contribute to the quality enhancement process of VU?

3. Closing

Closing is not the end of the research it represents only the closure of the interview. In closing, we collect all the feedback of the participant which will be used in decision making. At the closing stage we thank the participant for his/her time and contribution towards research and inquire whether he/she has any questions. If he/she has no questions, then the device is turned off, the ending time is recorded, and the interview is terminated.

Developed from Ruhe and Zumbo (2008)

The above interview questions comprised open-ended discussion with e-learning expert regarding the concept and importance of quality enhancement in student experience and the importance of student support services by keeping in mind the importance of the e-learners' perspectives.

3.5.3 In-Depth Interviews with E-Learning Students

The researcher contacted the campus managers and after getting permission she directly visited different campuses in Lahore and conducted meetings for interviews on different days. After obtaining the consent of the participants, they were requested to sign an 'unsigned consent form,' which provided detailed information regarding the study. This was followed by a telephone call to set up a date, time, and location for the interview.

Data for this study was collected through semi-structured open-ended interview questions that permitted narrative responses from participants thereby yielding more comprehensive and appropriate information (Miller, 2019). The open-ended interview questions asked students about

their reasons for joining VU and how e-learning satisfied their education needs. It also included the students' expectations about support services related to the e-learning environment and how these services were evaluated. The interviews were conducted by following a specific interview protocol.

Initial Online Interview Protocol for E-Learning Student Virtual University

1. Introduction

The interview will be started with an acknowledgment note by the interviewer. After that the interviewer will introduce herself and briefly explain the objectives of the interview. The interviewee can ask questions about any reservations he/she may have before the start of formal communication. The interviewer will establish ground rules for the interview:

- All conversations during the interview will be kept confidential.
- The objectives of the interview will be disclosed to the participant.
- The participant's views will be respected.
- The timeline of the interview.
- Later on, the participant can contact the interviewer, if he/she wants to get information about his/her interview.
- The arrangement of recording devices.

2. Discussion Questions

The participant will be asked to answer the following questions.

- How do you feel about the new e-learning system? What was your personal experience on orientation day?

- What type of communication do you have with your instructor? What was your personal experience of online learning communication? What types of challenges did you face in the e-learning system?
- Do you have ample interaction with your instructor? Does your instructor create a positive environment for communication and motivate you to make your experience of online learning good?
- Has VU provided a student counselor for your convenience? Can you tell me about the role of a student counselor in your studies?
- Do you feel that instructors' behavior should take account of the strengths or weaknesses of students?
- How do you feel about the new e-learning system? What was your personal experience of online learning? What are some of the challenges you faced in the first year of the e-learning system?
- How do you feel about the curriculum of your discipline? Is it effectively fulfilling your academic requirements?
- How does the e-learning help you to enhance your knowledge, skills and attitude in relation to the different teaching pedagogies used by instructors?
- Is there any discrepancy you feel in the e-learning environment of the VU?
- Are you satisfied with the quality of the academic structure of e-learning?
- How many workshops and webinars did you attend after your admission to University?
- Do you collaborate with other students? How valuable is it to you? Do you feel your learning is fostered through discussion with other students?
- Are you provided with an opportunity to participate in cross-university competitions?

- Does the university provide you with an opportunity to participate in the quality enhancement process through evaluation/feedback?
- Are you satisfied with the quality and frequency of assessments?
- Does the university update your course regularly as per the requirements of the employer?
- Do you have access to an e-library?
- Do you feel your instructors are equipped and well understand the teaching requirements of online learning?
- Is it possible to schedule a meeting with your instructor? Do you want to stay connected with your instructor through telecommunication?
- What is the most important element you require, according to your degree, in the student facilitation center?
- Are you satisfied with the services provided by student facilitation centers regarding infrastructure?

3. Closing

Closing is not the end of the research it represents only the closure of the interview. In closing, we collect all the feedback of the participant which will be used in decision making. At the closing stage we thank the participant for his/her time and contribution towards research and inquire whether he/she has any questions. If he/she has no questions, then the device is turned off, the ending time is recorded, and the interview is terminated.

Developed from Shroff, Vogel, Coombes, and Lee (2007)

The above interview protocol table comprised 21 questions. These discussions are categorized into eight classes to respond to research issues. These are: 1) the concept and importance of faculty/student interaction in e-learning, 2) first-semester experience at VU, 3) requirements of

hybrid learning, 4) orientation, 5) student collaboration/course group chat, 6) learning process, 7) suitable suggestions regarding improving quality through student participation, and 8) e-learner's demographics.

3.5.4 Sample and Sampling Method

The size of the qualitative sample for the study included a small number of participants (including e-learners), who provided in-depth information about the key concepts being studied by the researcher in the form of open-ended interviews. The sample size for the qualitative study of this research project comprised 21 e-learning students of whom 14 were male and 7 were female and one e-learning expert. All participants were Pakistani nationals, Muslims by religion, and 18+ in age. The number of participants was finalized based on their availability and their capability to address the research questions by keeping in view that each new piece of information is more expensive than the previous (Henry, 2019).

3.6 Data Sources

Data source represents the systematic collection of data in such a way that complete and reliable information can be gathered. The primary data sources included the enrolled students of the VU of Pakistan. However, for cross-verification, instructors and higher management of VU were also considered in data collection. The main data collection technique used in this study is semi-structured interviews with students and academic expert.

3.6.1 Procedure for Data Collection

In qualitative research, we use the interview technique for the collection of data. In qualitative research, we collect information through structured interviews, semi-structured interviews, unstructured interviews, or focus groups. In this research, a semi-structured interview technique was used to gather maximum information from participants (Fakis, 2020). Törnebohm (2019)

explained that interviews are very helpful for exploratory research because through an interview specific problems can be identified directly from stakeholders with constructive solutions. The main advantage of the interview method of data collection is that only a few participants are required to gather rich information.

3.6.3 Data Analysis

Before analysis, the transcripts for each participant were de-identified to ensure confidentiality and to limit analytical bias. The interview transcripts were reviewed line-by-line by the researcher, who searched for each theme and concept which had been developed from the preliminary interviews conducted with e-learning students.

The data obtained from the in-depth interviews with e-learners were thematically analyzed using QSR NVivo 12 software (Mhaidli, Zou, & Schaub, 2019). The thematic analysis and content analysis together provided a deeper insight for the researcher about the extracted themes concerning e-learners' participation and the quality enhancement process. The important variables were coded under the 'parent nodes' and the sub-topics for each theme were coded under 'children nodes.' The results for each variable were extracted by running a 'matrix coding query' (Manai, 2019). The results were presented both in matrix and chart forms. A detailed explanation of qualitative data analysis is discussed in Chapter 4.

3.7 The Requirement of Special Ethics

Before the interview, participants received an initial email and an unsigned consent form, which they were asked to review before the interview. The unsigned consent form included the objectives of the research, a brief description of the protocols of the interview, identification of whom will view the collected data, identification of the time commitment needed for participation, a discussion of privacy and the right to withdraw from participation at any time. After reading the

unsigned consent form, the participant becomes fully aware of his/her rights. This awareness creates comfort in the mind of the interviewee (O’Keeffe, Buytaert, Mijic, Brozovic, & Sinha, 2016).

3.8 Validity and Reliability

Validity relates to the authenticity of results; we examine whether the research findings are accurate and based on facts or not. Validity also indicates that the approach used during research remains consistent across different researchers and projects (Bush, 2007). Kvale and Brinkmann (2009) provided a detailed protocol for interviews and their interpretation which helps researchers to replicate the technique of one qualitative study in another. So, for the reliability of the study, the researcher should focus on the set parameters of data collection and analysis techniques defined in a previous study. Thus the interview procedure followed the interview protocol for each interview in terms of acknowledgment note, introductions, and inclusion of all queries. However, in each interview, the data collected was based on questions asked of each participant. The researcher asked different questions from different stakeholders, so the collected data has different dimensions based on the queries handled by each respondent.

The validity of qualitative research also increases by using NVivo 12, which is qualitative data analysis software that helps in defining the variables, their coding, their categorization, and ascertaining the relationships among them. Besides, it also helps researchers to eliminate repetitive, overlapping, and vague expressions. Moreover, the NVivo 12 software provides a system that condenses human coding error by keeping sources of information or textual data because the software spontaneously tags all invariant constituents with relevant information, serving to increase rationality. The validity of data can also be ensured through manual checking (Harrison et al., 2020). van Schalkwyk and Dewinter (2020) concluded that manual checking is

the most important way to increase the validity of qualitative research. For this research, initially, a form was sent to the interviewee containing interview questions through email, afterward a telephonic interview was conducted and responses were recorded. Later, interviewees were sent a copy of these responses and requested to review these documents to ensure accuracy of the transcription. The purpose of the initial documents was to develop clarity of interview questions and the object of the subsequent document was to ensure the validity of responses of interviewees. Finally, while confirming the participants their demographic information including gender, age, socio-economic status, and previous education are considered. The purpose of the insertion of demographic information is to determine that either result remains consistent concerning demographic or they vary.

3.9 Chapter Summary

The current research was based on qualitative research with a purposive sampling technique. It includes a case study of the VU of Pakistan, a federal public sector university which deals in online education. The purpose of this research was to find out the determinants of the quality of e-learning education from the students' perspective. The outcomes were construed through a descriptive framework, which was based on detailed interviews with students and experts and thematic analysis of interviews to determine how students' insights can be included in the development of quality processes of e-learning. By keeping in view the track record of previous qualitative research studies, a sample size of 22 participants was selected through campus managers, students' profiles on the internet, and through students' and peers' references. The research focused on the students' experiences and expectations of online education and the relationship between institutional commitments and program outcomes. Chapter 4 will cover the analysis of students' expectations and experiences of online education in relation to program outcomes through NVivo

12 and will interpret the gaps between students' expectations and experiences and program outcomes; it will suggest how we can improve the quality of e-learning education in Pakistan by considering the research findings. It will also identify the research gaps which will be beneficial for future research.

CHAPTER 4: QUALITATIVE DATA ANALYSIS

In this research, information regarding e-learner experience was collected through semi-structured in-depth interviews with academic expert and in-depth interviews (semi-structured) with e-learning students. A sample size of 22 participants was selected to answer the research questions. The description and interpretation of the findings of this study are separated into predominant themes, followed by sub-themes or topics. The recognition of this subject matter is based on the research objectives that are connected to previous research settings and the literature review. The themes are illustrated by using quotes from academic expert and e-learning students. To convey the ideas, thoughts, experiences, and emotions of participants, the direct quotes of participants are shared. There was a great deal of emotion expressed during these in-depth interviews, with each interview lasting for more than 45 minutes. This chapter is mainly based on these direct quotes, which include highly significant content, and their analyses. The interview with academic expert was audio taped and transcribed verbatim in English. The data collected from in-depth-interviews were analyzed according to ideas or subject matter using QSR NVivo 12 software, followed by thematic analysis to verify the key themes. Thematic analysis was directed to take out the key themes; afterward, the sub-themes were examined to confirm the result of the thematic investigation.

Thematic analysis is extensively used as an initial method of study in qualitative research and it is carried on in succeeding order (Santos, Steil, & Delgado-Hernández, 2020). The researcher inquires, interprets, and reveals different themes in the qualitative data based on the theoretical frame of reference (Chong et al., 2020). In the thematic investigation, sub-themes are created and their frequencies are calculated based on the number of repetitions. Each theme is used in a text.

The thematic study was done according to the subsequent procedure. The investigator became familiar with the facts by reading and concentrating on the discussion quotes of the students to understand the main themes (Laumann, 2020). After identifying the data contents, initial codes were generated by turning the data down, and labels were assigned to generate categories so that further analysis could be made efficiently. Each code was then interpreted to understand the core meaning (Rutherford, Baxter, Grayson, Johnston, & O'Hare, 2020). Codes with parallel meanings were combined under one main theme, keeping in mind the accurate meaning of the themes which were identified (Molin, Langberg, Lange, & Egerod, 2020).

The essential points were evaluated to check the themes were relevant to the data as well as the theoretical perspective being studied. The investigator scrutinized the data to check for missing sub-themes which could be identified when the initial themes were extracted from raw data (Gele, Musse, Shrestha, & Qureshi, 2020). After assessing the themes, appropriate names were allocated to each theme. Themes were independently determined with the help of related ideas which offered an idea about the significance and appealing features of that theme (Kegelaers, Wylleman, & Oudejans, 2020).

The thematic investigation was directed to make repeatable and logical interpretations from written data within the framework in which it was acquired (Lindner et al., 2020).

Written data were read carefully and concise comments were made when appealing or important information was established. A list of different types of information was made, based on the brief notes previously prepared. Each item in the list was grouped in a way that explained what it was about. It was assessed whether or not the classifications could be connected in any way and these were listed as the most important categories and/or slightly less important categories (sub-themes or topics). The foremost and less important classifications were composed and compared to

ascertain if some groups could be combined or if some required to be sub-classified (Brotherhood et al., 2020).

Finally, themes and topics were interpreted (Aliyyah et al., 2020). The discussion of which is presented in Chapter 5 of the thesis. The findings of thematic analyses of the qualitative study are given below.

4.1 Preliminary Interviews with Academic Expert and E-learning Students

4.1.1 Academic Expert Views

The initial interview protocol to conduct in-depth interview with an academic expert comprised important questions regarding the concept and importance of quality enhancement process, e-learning policy, services of student facilitation center, academic structure, monitoring and control, research degrees, and other suggestions. These concepts were derived from the literature to gain a practical insight into approaching the e-learning students. Quotes from the academic expert describing each of these concepts are given below.

Do you have quality guidelines available to run the institution of e-learning? If not, then on which grounds do you monitor systems of quality assurance and quality enhancement?

“Three years ago we made e-learning policy and forwarded it to HEC but, when the Government changed, the coming Minister and his team changed the previous government consultants and hired a new team for making new e-learning policy and design guidelines on e-learning. We tried our best to implement policy at that time but could not succeed. Yes, we know that we have no legal document in the shape of the e-learning policy. We tried our best to cooperate with HEC but could not succeed in making its policy final.”

Which type of governance structure did you follow to run the institute?

“To run the system of e-learning, we have made a proper structure that guarantees our institution’s success. The system comprises statutory bodies include BOG (Board of Governors) and it is supported by the Executive Council, this council is supported by the Academic Council, before the Academic Council, there is the Board of Studies (BOS). All academic matters are initiated in BOS, after that they are transferred to the Academic Council then the Executive council and at the end goes to BOG.

*For our **Research program**, all research issues are resolved and decisions are taken in the Graduate Research Committee, this committee forward decision to the Board of Studies, and final decisions are taken in Board of Advanced Studies and Research.*

We have our monitoring and control system which is done in the shape of evaluations (feedback) at the end of the semester. Despite evaluation, we have also instructed students to contact us whenever they want ... and they send us an email and they know they will be responded to.”

What prerequisites are necessary for launching a course?

“Normally a course is offered after the development of its complete study package ... however, sometimes a course is offered with limited study material, like the absence of video lectures, handouts, or PowerPoint slides. So we have decided to control these irregularities by introducing a ‘course development policy.’

We are gradually improving our issues ... but due to big organization the pace of this process is slow and you know in doing abrupt changes, we can face agitation... slowly and gradually things will change.”

What are your arrangements for orientation day?

“For this orientation day, an orientation video is presented to students, it is a complete set of information that helps the students to know about Virtual University, its systems, like learning management system, exams, discussion boards, departments, services, and many more.”

How can the student facilitation center help you in building a strong image of Virtual University?

“Virtual University is providing academic facilities through its campuses. There are two types of campuses, one is the VU-owned campuses and the others are private campuses. On all campuses, there are campus managers who facilitate the students, but the quality of services varies from campus to campus. Some campuses give special attention to the student that is why students say that they are good, while on a few campuses there is a need to improve the quality of services.”

How do you resolve students' grievances?

“There is a Grievance Committee that takes the grievance cases. The committee invites the parties, hears their views, and verifies it with evidence. The problem is that the committee takes a long time in decision making.”

What are the Terms of Reference of your statutory bodies?

“A meeting related to academic planning is conducted by BOS once in the semester, Academic Council meeting is also conducted once in a semester but, due to some certain issues, more than one meeting can be conducted ... like due to COVID-19 a second meeting was conducted to resolve the mid-term issues and planning. We in VU conduct statutory bodies' meetings very regularly.”

What is your hiring process?

“For the hiring process, a simple advertisement is given in the newspaper and the human resource department looks after the whole process of hiring for a 3-year renewable contract.”

What is the student–teacher ratio?

“Our student–teacher ratio is approved by our statutory bodies which are 100:1 for practical subjects and 150:1 for theoretical subjects. At MS level student–teacher ratio is different from undergraduate subjects. In MS programs every department has its policy regarding student–teacher ratio. Sometimes the ratio is 75:1 or 60:1.”

Can you please tell me the counseling services procedures for students?

“We have no fixed counseling hours. Tutors have the liberty to decide the counseling hours and its procedure. All academic activities are done through the ‘learning management system’ and counseling hours are not a mandatory requirement of Virtual University.”

How do you monitor the quality of your courses?

“We have our monitoring and control system which is done in the shape of ‘student feedback’ which is normally conducted at the end of the semester. Despite formal feedback, we have also instructed students to contact us whenever they want ... and they send us an email and they know they will be responded to soon.”

How do you conduct training programs for faculty members?

“We train our faculty by conducting different training programs; however, these pieces of training are based on management decisions. Faculty needs analysis is a missing component of training at VU.”

How do you handle a variety of students?

“Virtual University is the only online university in Pakistan and it provides academic facilities to several students who have different demographics like working class and non-working class; young and aged; national and international; young girls and housewives; persons who have physical ability and disability; and students who have good grades and poor grades, but the problem is that it uses similar teaching pedagogies for all students.”

What is your course updating process?

“The course updating process depends upon the finance available to us because the process of updating one course requires 6 to 7 million rupees. So budget constraints create a hurdle in the up-gradation process of the curriculum.”

How does the faculty improve its knowledge and skill?

“Every organization has a mix of staff members, you know in our culture when a person gets a government job he or she can't be replaced easily in the organization, a few people take advantage of this feature. However, some faculty members enhance their education through enrollment in additional courses or programs. Their initiatives help them to improve their knowledge and skill and up-gradation of academic status. Besides, Virtual University also provides training to faculty members.”

Do you have weekend support facilities for the working class?

“Our examinations are conducted mostly on Saturdays and Sundays, so it is difficult for us to provide counseling or support facilities on the weekend. However, it is possible to provide support services on a weekend in which exams are not scheduled.”

Can proper induction of blended learning systems enhance the learning experience of students?

“The government has given us the policy on blended learning, we are watching it, but we have to look and make policy by keeping in mind the desire of the majority of students ... if the majority of students demand it, we will go for it ... but currently, we have no policy on it ... those who want personal attention can go to campus.”

What are your challenges in research programs?

“In the research program, the supervisor and the student have physical interaction problems ... because all the tasks cannot be performed through machines. We received several emails from students and supervisors and we are making plans to resolve these issues.”

Do you think that the quality of assessment affected due to the availability of the online manual of past exam papers?

“We suggested to our instructors that they add additional material to the curriculum every year according to the market requirements and expand question bank to improve the transparency of the examination system.”

How can student facilitation centers contribute to the quality enhancement process of VU?

“There is no doubt that in the e-learning system, the student facilitation center improves the quality

of education. We have several facilitation centers that provide standardized services to the students. However, we discourage our centers from providing extra services to students because it creates biases. We also avoid online interaction with students due to inadequate internet facilities in the country.”

4.1.2 Interviews with E-learning Students

The interview protocol to conduct in-depth interviews with e-learning students comprised the following main themes: 1) first-year experience; 2) administrative services; 3) blended learning; 4) services of student facilitation centers; 5) research degrees’ issues; and 6) other suggestions. These themes were extracted from the thematic analysis of the Study, as well as derived from the literature. Students’ quotes describing each of these themes are given below.

Main Area	Sub-Area
First-year experience	<ul style="list-style-type: none"> ▪ Orientation ▪ Communication ▪ Student motivation ▪ Counseling services ▪ Personalization ▪ System adaptability issues in the first semester
Curriculum development and delivery practices	<ul style="list-style-type: none"> ▪ Study material ▪ Interactivity’s influences on e-learners ▪ Delivery practices and check and balance system ▪ Quality of academic structure

Administrative services	<ul style="list-style-type: none"> ▪ Workshops/webinars ▪ Student collaboration ▪ Cross-university competition ▪ Student participation in quality enhancement process ▪ Assessment system ▪ Course updating process ▪ Library ▪ Faculty training
Blended learning	<ul style="list-style-type: none"> ▪ Meetings ▪ Telecommunication
Services of student facilitation centers	<ul style="list-style-type: none"> ▪ Services student facilitation centers ▪ Infrastructure issues
Other suggestions	<ul style="list-style-type: none"> ▪ Surprise visits on campuses

4.1.2.1 First-Year Experience

4.1.2.1.1 Orientation

How do you feel about the new e-learning system? What was your personal experience on orientation day?

“When I came to the first day on this campus, I felt so good and very happy that, due to my job, I can continue my education; I just have to listen to the lectures and do my all work, even exams, through online system ... but as time passed I missed my teachers, my class fellows, discussion with instructors, a brainstorming environment, and concluded the world is full of schools, colleges,

and universities and if they are open and educating millions of students, then it means there is a meaningful relation among all those facilities which they are providing to their students” (Student 7).

“An orientation program was entirely different from conventional education, I was so surprised that when on the first day I came and saw students are coming and taking orientation from the system and going ... nobody was there to receive us and say welcome to a new university, which I was expecting from it. I was so disheartened I left the university for three months and came again for mid-exams ... on exam day I found my old classmate ... Then I found a reason to again join a university” (Student 1).

“The first thing which I don’t like is the orientation, the way they give it to students ... I think that orientation should be properly communicated from the management or teachers, because the professional students have lots of queries that they need to ask of teachers and they have to satisfy them ... there is a need to give orientations face to face, which will be more appealing and have a positive impact on new students ... I missed the teachers from VU” (Student 20).

“Yes, orientation day was strange ... when I came here for the first time, except for a lab attendant, there was no official person here who could guide us regarding the VU system, there were some seniors, who guided us regarding VU system” (Student 2).

“I feel our subject teachers should be there, who should introduce themselves to students so a feeling of student–teacher relationships could be formed, because this relationship is very essential for the success of students in their lives and can improve the rate of retention of students in this institution. I feel that orientation should be conducted according to discipline, like on first day IT students’ orientation should be conducted, next day software engineering students’ orientation,

third day there will be management sciences students' orientation, and for the rest, which can be short, a number of separate days should be selected for their orientation. In this way the university work can be reduced, students can introduce each other ... exchange contact numbers, make groups, can decide days to visit university, help each other in understanding the system of distance learning” (Student 2).

“In my opinion, the first occasion of the university should be very complete and welcoming so the students want to come and study” (Student 2).

“It was a very strange environment on orientation day when I came, there were many students in this hall asking each other regarding semester, class, degree, and system. There is only a lab attendant, who was guiding the students regarding the sitting plan and trying to maintain discipline in the hall, but the student doesn't know how to start study in distance education. Many students were feeling not good and got confused about whether they would continue their studies or not” (Student 6).

“I experienced a lot of difficulty on orientation day; I didn't understand what to do. I saw orientation video, but I didn't understand the video because I belong to a remote area, then I requested my seniors to make me understand manually, then I came to know how things are done” (Student 11).

“On the first day, I was so confused about what will be the system of distance education, how I will do it, but when I came here I met with senior students and they guide us a lot, but if I had an opportunity to meet with the teachers here that would be more important and meaningful than senior students” (Student 9).

“I was not confused on that day ... because I was properly guided” (Student 8).

“I am doing my MPhil Education ... my course work is completed but doing thesis ... I saw orientation only for 5 minutes ... I was expecting that there will be study, like to go to campus and take classes, but when I came and saw that on campuses students study on their own ... there is nobody to guide students relating to their subjects, then I preferred to study at home” (Student 19).

4.1.2.1.2 Communication

What type of communication do you have with your instructor? What was your personal experience of online learning communication? What are some of the challenges you faced with e-learning system?

“I communicate with our instructors through the moderated discussion board, email, and Adobe session. Sometimes I also faced problems in communicating with my instructor, sometimes I get an answer to my query very early but sometimes it takes 4 to 5 days which is too much time to get an answer” (Student 9).

“Here we are connected with our teacher through email which is a text-based communication. Our teachers are very qualified and experienced, but the most important problem which we are facing is that we have no physical labs separate from other students. We must have our separate lab in which only computer science students gather and work collectively like PUCIT. Labs practice is the only way to build the skill of software engineering which is an essential element for our career. I was so confused about adjusting myself in VU but I always try my best to understand all systems by myself” (Student 1).

“We have a gap between our management and students. We cannot properly convey our issues to high management” (Student 2).

“We connect with our teachers through the moderated discussion board and email ... In the previous semester, we had an Adobe session in which there was just like a class in which many students were there to listen to the lecture of madam ... students were hardly able to hear the voice of the teacher, but most of the time the madam's internet connection was not in a position to properly communicate what she was teaching ... due to this many students do not participate in the Adobe session ... at the end, there were only 3 students in the session, I think that's why they finished the Adobe session ... after this, we only have the opportunity to ask or to interact with teachers through email or moderated discussion board” (Student 12).

“We communicate with our teacher by way of email and moderated discussion board. Sometimes moderated discussion board reply is very late and when I receive that reply at that time I get no satisfaction ... because I have already consulted with available seniors and got an answer from them” (Student 3).

“We communicate to our teacher through the moderated discussion board, email, and another facility which is called Adobe. In Adobe, we communicate through voice messages and chat. I get a link in the email, and then we connect through our teacher. It is a good but a short time and only for subject CS101 not for others; we want this facility for other subjects too” (Student 4).

From the very first I am not in this practice, I do not feel very comfortable because of the delayed response from them (Student 5).

“We communicate with our instructor through email” (Student 6).

“We have different sessions to connect with the instructors like Adobe session, moderated discussion board, and emails. Adobe session is like a telephonic communication with the instructor and instant messaging. Students are directed by email that this subject instructor will be available

from this to this date for two hours. This Adobe session is not for every subject, this facility is selected by the university management. The Adobe session meetings are limited according to management discretion” (Student 7).

“We interact with our instructor through email and moderated discussion boards ... sometimes we faced difficulty in understanding some important points and desire to have our teachers in front of us and guide us in our work” (Student 15).

“I used moderated discussion board and email to interact” (Student 16).

“We interacted with instructors through moderated discussion board and emails (Student 11)”.

“I was a home-based student...my interaction with the teacher was with moderated discussion board and email ... I was extremely in need of extra help in Advanced Financial Accounting ... but I did not get help from anywhere especially from VU. I tried my best to communicate my message to the teacher but they did not bother about my problem ... I asked a question to the instructor but the instructor did not respond as I needed or required and got a ‘C’ grade ... then I tried to improve my subject and gave paper again but I did not get my desired grade and I have to bear B grade ... but I was completely dissatisfied with the teacher's attitude ... if there were proper teacher and student interaction ... I would have got an opportunity to express my problems and I would have been able to get help from a teacher and continue my studies calmly (Student 18).

4.1.2.1.3 Student Motivation

Do you have ample interaction with your instructor? Does your instructor create a positive environment for communication and motivate you to make your experience of online learning good?

“This university can become the top university of Pakistan because many students come here for study purposes but if they improve their quality of services and keep students’ motivations high. The system doesn’t allow us to have ample interaction with the instructors” (Student 2).

“Normally instructors are not physically available and most of their communication is through email, which does not fulfill our requirements” (Student 4).

“Normally we discuss our problem with our seniors; they are good and helpful but not always” (Student 4).

“It is very difficult in a virtual environment to contact instructors, so students use alternative measures to fulfill their needs. In many VU campuses, seniors play an important role as they guide them in curricular or extracurricular activities. Senior students teach them, guide them, motivate them, and demotivate them for doing new experiments. In this process, some campuses give them something (cash) for their services out of their pocket but mostly they serve them voluntarily” (Student 6).

“Yes, there is a great need to motivate their students but without providing a complete set of services how can it be possible?” (Student 7).

“Build or motivate the students regarding their career through proper guidance includes training and interaction which is highly demanded ... so when they complete their degree they must be able to immediately become part of professional life” (Student 11).

“Teacher motivation for the student is very important for success, but I never received any motivation from a teacher she only discourages me and often comments that there are many better students than you and you couldn’t do this ... many times I requested her to please show their work

... so I can see what is wrong with my strategy but she didn't show me their good work" (Student 18).

"When I receive a reply from moderated discussion board at that time I get no satisfaction and motivation ... because I have consulted with available seniors and got answers from them" (Student 3).

"We mostly depend on groups in which we understand by collective efforts of our groups and don't bother to ask again and again because sometimes they get irritated if we ask again and again. Normally take help from our senior student currently working in Punjab University ... they help us in our problems regarding studies" (Student 12).

4.1.2.1.4 Counseling Services

Were you provided with a student counselor in VU? Can you tell me about the role of a student counselor in your studies?

"No, I didn't any Adobe session in the first semester as I am an overseas student doing MIT ... and not provided to me. Student counselors are allocated but the only tab is there ... it is not connected. I tried my best and many times but I couldn't connect to any student counselor ... Afterward, I stopped trying that tab" (Student 14).

"No, we were not provided with this facility" (Student 20).

"No, we were not provided with this facility" (Student 1).

"VU should provide us with a student counselor because I have observed that there are many students who feel confused about many issues, like I want to quote that my friend was confused in choosing the subject, in this confusion he selected the wrong subject and did not pass these, and then he again studied another subject to qualify for the exams. So student counselor is very

important ... students have many issues like course selection, selection of correct degree, selection of correct degree program, and other prospective jobs relating to their education. They must allot a student counselor to us” (Student 6).

“No, we were not provided with any student counselor or student adviser with whom we could discuss our problems other than studies or if we want some guidance related to our future ... I can tell you one incident related to your question, then you can best decide what type of relationship we have with our instructor and what type of counselor they become for us ... once I posted a query to my instructor ... on reply, he or she said that we have posted the answer to this query already you please read it ... I again watched the list of the moderated discussion board and read but I did not understand ... so I never asked the question again and the most important point is that it is distance learning and we have to solve our own problems so you can imagine how they can afford student counselors” (Student 7).

4.1.2.1.5 Personalization

Do you feel sometimes that instructors’ behavior should take into account the strengths and weaknesses of students?

“Yes, I feel and need that sometimes when I don’t perform well and find a little attention from the instructor” (Student 2).

“Yes, I agree because, in the first semester, the student needs a lot of attention, if instructor communicates with them and asks them about their problems so the student can prepare their subject good but, in the current circumstances, it is not possible because this kind of system doesn’t exist in VU” (Student 3).

“I feel difficulty in the MGT subject; I am much behind in this subject. I don’t understand this subject. A guy told me that there is a college in which this subject is taught with some fee. Yes, the first two semesters are difficult” (Student 4).

“Yes, there were times when I needed help but hesitated to contact academic staff and we consulted our seniors to guide us and they did according to their knowledge” (Student 11).

“I was extremely in need of extra help in Advanced Financial Accounting ... but I did not get help from anywhere, especially from VU. I tried my best to communicate my message to the teacher but they did not bother about my problem” (Student 18).

“Yes, there are always weak students in every institution ... they try to get help from teacher ... in VU you know admission criteria are 45% pass marks and study pattern is entirely different ... students, of course, need help which they usually get from their senior students whether it is right or wrong” (Student 19).

4.1.2.1.6 System Adaptability Issues in the First Semester

How do you feel about the new e-learning system? What was your personal experience of online learning? What are some of the challenges you faced in the first year of the e-learning system?

“Because I am the only student of ELT on my campus ... so till now, I can’t find my group of VU students I experienced a lot of difficulty in understanding the VU method of studying ... so the first semester is difficult for me ... no, VU doesn’t provide us student’s group” (Student 15).

“We connected with our teachers through moderated discussion board and email ... In the previous semester, we had an Adobe session in which there was just like a class in which many students were there to listen to the lecture of madam ... students were hardly able to hear the voice

of the teacher, but most of the time madam's internet connection was not in a position to properly communicate what she was teaching ... due to this many students do not participate in the Adobe session ... at the end, there were only 3 students in the session. I think that's why they finished the Adobe session ... after this, we only have the opportunity to ask or to interact with teachers through email or moderated discussion board” (Student 12).

“We were only able to listen to their voice but were unable to ask or say something regarding how to improve this facility ... I think students must have the liberty to ask a question and talk with instructors” (Student 12).

“I communicate with our instructors through the moderated discussion board, email, and Adobe session. Sometimes I also faced problems in communicating with my instructor, sometimes I get an answer to my query very early but sometimes it takes 4 to 5 days, which is too much time to get an answer” (Student 9).

“I also want to tell another issue, that last day I was preparing for my exams there is a subject, its code is MCM 503. In this course, the lecture and handout were changed and had no relevance between them, I was so confused then our seniors guide us that exam questions are made from the video lectures, not from the handout, so do not focus on handouts just listen to video lectures, this issue must also be resolved” (Student 9).

“We also need a separate group created by University ... I experienced a lot of difficulty in studies because I never studied IT, I was a student of biology, I needed lots of attention from our teachers ... I tried hard and was able to find my other class fellows, and same as others, boys find us and other class fellows to create our group for study” (Student 2).

“We need and miss our teachers ... sometimes it happens that when we are listening to our lecture and we don’t understand, we feel that our teachers to this particular subject be here and so we can discuss our problems with them. We can improve our results if we are provided with our instructors. Another thing is that we also need a class fellows group created by the university. So we can help each other by discussing our requirements and convey our joint problems to the management of VU, so collective efforts will effect improvements of the current environment” (Student 2).

“The most important service which I missed a lot is instructor presence. If this problem is solved, then most students will come and join VU” (Student 3).

“We belong to remote areas ... and students do not have internet connection in their homes ... so they need to visit campus ... and want to get an education but when they visit campus and ask questions repeatedly ... they scold and humiliate them ... that is why they sit quiet; you can understand how new students will study ... I think a friendly atmosphere must be given to them so they can happily do studies” (Student 11).

“I want to say about some problems ... you see ... there are many students who don’t know how to use their LMS and there are many students who do not even know about their official email ... even in the third semester they are asking about how to open their official email account because there are many campuses that are not providing basic technical know-how to their students, students guidance is very important to be provided ... students do not even know their rights regarding distance learning system ... First-semester presence at the campus can help a lot in the quality of the education at VU” (Student 1).

4.1.2.2 Curriculum Development and Delivery Practices

4.1.2.2.1 Study Material

How do you feel about the curriculum of your discipline? Is it effectively fulfilling your academic requirements?

“Not all lectures are recorded but some are recorded and some lectures are not recorded, those lectures which are not recorded are only in form of PowerPoint slides, we just read PowerPoint slides” (Student 6).

“Yes, those who are not recorded are difficult to understand, we request many times to VU. From the first to fourth semester we have a mixed form of lectures, some are recorded but some are not, except there are PowerPoint slides; but, from the fifth semester, we are only provided lectures in the form of PowerPoint slides. This issue needs a lot of attention. At least we want recorded lectures so we want to listen to them. We are lucky that we got the opportunity to discuss our issues with our teacher when we come here for practice, so that’s why we face fewer problems as compared to other subjects” (Student 6).

“We want video lectures in biotechnology; mostly we are having lectures in PowerPoint slides” (Student 6).

“If you want to make your graduates competent you have to do it, otherwise graduates will not be able to compete for their selves on the national and international level. I think new advancements should be a part of the study to make the vision of students strong and competitive. That is why we need interactive sessions so we can tell our teachers of today’s requirements and induce them to change the ways of study” (Student 14).

“Another very important thing is that all those lectures which are not in recorded form and only PowerPoint slides are provided to students for subject preparation, should not be included in course contents, because the students felt a lot of difficulty in preparing for these subjects” (Student 11).

“We also don’t have one book, which means we have video lectures but handouts are not available to us ... we prepare from video lectures ... we make our notes” (Student 17).

“All their curriculum is copied from Google, you can easily find their copied material on net ... they haven’t made notes of their own ... and all their papers are from past year papers, nothing new is seen ... I don’t believe that this is the MPhil level” (Student 16).

“There were some subjects whose video lectures were not available ... we had to study from handouts” (Student 19).

“I faced lots of problem in academics ... video lectures should be interactive ... quizzes and assignments are easily cheated ... there is a lot of work to be done in the academic’s section of VU ... I was also not satisfied with their curriculum; in MS they are teaching undergraduate Financial accounting ... there must be some MS-level subjects which they are not teaching” (Student 21).

“I think VU doesn’t have sufficiently experienced supervisors, that’s why they put restrictions on selecting a thesis and projects at certain CGPA. Here I also got a problem because I was intended to do a thesis but they didn’t allow me to do it ... So I repeat my subject and then I selected for the thesis ... I faced a lot of problems ... there I found an untrained, unprofessional and uncooperative supervisor. They did not guide you, but say to go see YouTube and get your answers there ... they must guide us, though we have studied a complete course it was bookish, there was no practice in it... I think it was just a wastage of time when I sent him my work, he did not answer me for six

months ... and they are not professional, they don't have ethics and are not committed to their work ... once I was in a meeting with him he just said to wait and went out for a meeting for one hour ... what is it ... very often I became fed up with their attitude towards students ... very often they gave me time for meeting and for the meeting I especially took time off from my professional work. When the meeting started, he often said, when did you send me your work? I was astonished by his careless behavior. What type of sense of responsibility is this? ... If he did not see my work, then how could he help me in my studies? ... Then another problem I faced was that when I needed help in running moderator ... nobody knows how to run it in VU ... again I was helpless ... then I saw a lot on YouTube channels and after a lot of effort, I learned the technique ... at one point I was fed up ... and I misbehaved with my supervisor, I said that I will do one more course I will leave doing thesis ... he said without my NOC you can't do it, then he changed his behavior, then I decided that I will not do my PhD from Pakistan" (Student 20).

"He often said that when we were doing research we waited for our supervisor for four hours and never said a word in front of them, then I said you must learn a good thing and learn not to do what you were faced with during your research ... I faced a lot of problems doing my thesis" (Student 20).

"I also wrote in my feedback form that much work needed to be done to enhance the quality of education in e-learning. First, finance subject instructors or supervisors need more subject knowledge, change the first 6 to 7 subjects of MSBA as they are not up to the mark, also change MSBA lecturers who are teaching, who are not coordinated with their students. Train the instructors and lecturers who are in contact with the students. MS level needs lots of attention from VU management because the students who are doing MS are professional and have ample experience in their respective fields. I saw the profile of my supervisor, his field of interest was

computer sciences and he was teaching management subjects to me, so I think that's not fair. The supervisor's field of expertise must be matched with the student's field of interest, where he or she can guide him or her very well. VU's stance is that there is no compulsion to match the field of a supervisor with the student. I think this is not right" (Student 20).

"There are some certain lectures that do not provide handouts, we prepare our exam through video lecture ... our senior tells us that they were also not provided many video lectures and handouts ... we have video lectures but not complete lectures, but, still, we are not provided with handouts and experience many difficulties in exams" (Student 12).

4.1.2.2 Interactivity Influences on E-Learners

How does e-learning help you in enhancing your knowledge, skill, and attitude, keeping in view the different teaching pedagogies used by instructors?

"Students must be given time to talk to them, eliminate their confusion, and motivate students ... if they are successful in motivating students ... They will find no difficulty in the e-learning system and will happily continue their studies" (Student 16).

"We are not informed about the new thing in our field, like I know in mass communication we do report on issues and we can become an anchor on TV, but I don't know what more fields are offered and what I can do more in this field. The University administration should conduct workshops and seminars to give awareness. They can invite famous anchors and media persons to guide the new generation about rapid changes in mass communication" (Student 9).

"The issue I faced when I started my research ... I faced a lot of problems ... you can imagine I have spent one and a half years in deciding my topic and still it is not yet decided ... whenever I

sent an email they did not answer and give an answer after one month, whenever I tried to call they did not attend call” (Student 19).

4.1.2.2.3 Delivery Practices and Checks and Balance System

Any discrepancy you feel in the e-learning environment of VU?

“Plagiarism policy is also not properly implemented ... students copy others' assignments... and get good marks” (Student 20).

“Female students are shy in communicating with their supervisors, especially in projects, for better projects result, there must be a strong mechanism to communicate, discuss the stages of projects and motivating attitudes with students are needed. I have also experienced rough and no cooperative attitude (don't want to mention their name) from the project team during my project and that was not only condemnable but also alarming for the e-learning system expansion in Pakistan” (Student 11).

“In the first semester, we got Adobe sessions ... but did not get an Adobe session in second semester... we requested to provide us but no reply ... even our seniors told us that when we were doing MAELT we were not provided with any book ... and we just get video lectures and made notes from video lectures and gave exams ... but now we have books or handouts of many subjects but there is still one subject in the second semester whose book is not available ... I don't know in the third and fourth semesters what material will be available to us and what material will not” (Student 17).

“I also got a problem with doing this ... I completed my thesis very late just because of my supervisor didn't understand me ... I did not understand what the problem was ... whenever I took my homework to the supervisor ... she did not like my work ... many times I requested her to please

guide me on what is not correct in it, but she only said that, no, this is not right ... but did not say what I should do that it can be corrected, but all in vain ... there must be training for instructors ... My supervisor did not guide me well ... I was extremely dissatisfied with the advanced financial accounting teacher” (Student 18).

“During my thesis, when I was not satisfied with doing thesis ... I wrote a letter to the registrar that I am dissatisfied with my supervisor and cannot continue my MPhil ... he did not resolve the issue and expressed his inability to do so ... My supervisor threatened and scolded me because I had complained to the Registrar (Student 18).

“I saw others doing their theses very well and finding no problem but I spent a very hard time ... with my supervisor” (Student 18).

“But I was completely dissatisfied with the teacher’s attitude ... there must exist a proper teacher and student interaction where understanding between them can be created” (Student 18).

“The issue I faced when I started my research ... I faced a lot of problems ... you can imagine I have spent one and a half years in deciding my topic and still, it is not yet decided ... whenever I sent an email they did not answer and give an answer after one month, whenever I tried to call they did not attend call ... then I got married and having kids now ... so I am also lazy in doing my work ... they even did not persuade me ... if I were part of a conventional system ... my supervisor must persuade me and call me to come and show me the work ... but there was no check and balance there ... even the supervisor who was allocated, but my supervisor did not try to contact me ... I tried many times to contact her but she did not reply to me for three days ... once she replies to me to remake my work when I did ... in a complete month I tried to contact her four times ... she did not reply ... he is in education university ... then he liked my problem statement

and said now to work on the proposal ... then I tried to work on the proposal ... now the university is saying to tell us your topic and without mentioning the topic, you cannot go on working on your proposal ... and he is saying to go on doing further work ... there are so many issues ... there must be meetings with the supervisor... I have an external supervisor and chosen by me ... So I think all responsibility falls on the student who chooses the supervisor” (Student 19).

“There are students who exchange their passwords and request others for help ... this practice should be controlled ... I think the check and balance system is very weak in VU... if check and balance system is very strictly controlled many issues can be resolved ... from higher management to lower staff ... coordination among VU staff is also very necessary... because due to these issues, institute credibility is affected ... and students will not able to get to learn for what purpose he or she joins the university ... There is no plagiarism policy properly implemented in the VU system ... one student is working very hard and spending 5 to 6 hours to make his/her assignment, another is just copying that assignment ... Both are getting the same marks ... there must be some distinction between these two students” (Student 12).

4.1.2.2.4 Quality of Academic Structure

Are you satisfied with the quality of the academic structure of e-learning?

“Knowledge delivery is not the only important thing, but to ensure the learning quality is very important. The majority of students do not watch lectures, many students do not download books, do not do thorough study ... they just focus on student resources and getting good CGPA. Can students learn successfully in this system? ... Of course not ... I also think that this is a public university and it does not bother about improving its system ... because there is nobody to ask about its performance ... if it was a private university everything would be much better ... and student satisfaction would be on a priority basis” (Student 12).

“I am not satisfied with the examination system, especially because students cheat in quizzes and the quality of assignments is not as good as it should be ... I have also observed that previous assignments are given to students ... which are already solved, students get these assignments and submit after making little changes to them” (Student 16).

“I also wrote in my feedback form that much work needed to be done to enhance the quality of education in e-learning” (Student 21).

“At MS level, VU management needs lots of efforts and reforms because the students who are doing MS are professional and have ample experience in their respective fields as compared to the lecturers teaching them” (Student 21).

“I saw the profile of my supervisor, his field of interest was computer sciences and he was teaching management subjects to me, so I think that’s not fair” (Student 20).

“The supervisor’s field of expertise must be matched with the students' field of interest so students can be guided by him well” (Student 21).

4.1.2.3 Administrative Services

4.1.2.3.1 Workshops/Webinars

How many workshops and webinars did you attend after your admission to University?

“No, we have no seminars or workshops in VU, even if we need them on a priority basis” (Student 1).

“We have only two seminars in the first semester, now I am in the third semester and have no workshop or seminar” (Student 2).

“Till now, there is no workshop or seminar, no welcome party, no cafeteria” (Student 4).

“We have approximately one workshop each semester, which is not sufficient ... I must say that we must have at least two to three workshops each semester because our field is dynamic and we need to update our knowledge continuously. They are teaching us C and C++ but nowadays C sharp is very popular and every software is developing with the help of C sharp” (Student 7).

“In reply to this question, I can say, that in this university no seminars or workshops are conducted, not even in practical studies like computer sciences. We miss exposure to experts, current knowledge, and competitions among different universities. We especially miss subject presentations. No doubt this is distance learning, but for student success and student confidence, his or her communication styles are very important, here we have no system for building confidence level in students through presentations. At the end of their degree, when they appear in viva, many students fail in viva because they don't properly answer in front of their instructor” (Student 11).

“Industry-related workshops and seminars are highly needed but these are not available in VU, even in project time. I must say that at the final stage, students have no exposure, no teacher guidance, and they are not motivated and well-informed about what they should select in the last stage so that after this degree completion they can continue their project as the starting point of their career. For this purpose, they must train, guide, and support them in physical classes so students can succeed in the last part of their degree without any hesitation and confusion” (Student 11).

4.1.2.3.2 Student Collaboration

Do you collaborate with other students? How valuable is it to you? Do you feel your learning is fostered through discussion with other students?

“We must have a chat group, which consists of only computer sciences students ... We have no idea about our class fellows ... at this time I only know about two students here ... maybe they are coming here but I don't know who they are ... we need group discussion and group study to share knowledge in studies and help each other because University doesn't provide us teachers' presence” (Student 20).

“No, now I am not provided with this facility ... as you know, I am in another country where I have no opportunity to go to campus and discuss my problems with my seniors or campus manager ... I am alone here and have strongly felt the need to have contact with my class fellows ... I requested my sister-in-law who is in Pakistan to find a student on my degree program and requested her to add me to the MIT student group ... you see how difficult it is to study in VU ... I wish we can have subjects and program groups where our teachers are also added, discuss educational issues and get the required information from VU ... because I have recently joined a group of MIT but it is not as useful as it could be ... Most of the students are discussing irrelevant questions and topics ... which are of no use and advantage ... A formal group can be very useful and helpful in providing quality of education from VU (Student 13).

“We have not been provided with this facility, but we want a group in which our class fellows along with our teacher should be added so we can get a platform where we can interact with our teacher and class fellows. So, the teacher can easily provide us with the latest information regarding the subject, new software arrivals, feedback on papers, career development information, and studies problem” (Student 1).

“We also need a separate group created by the University ... I experienced a lot difficulty in studies because I never studied IT, I was a student of biology, I needed lots of attention from our teachers ... I tried hard and was able to find my other class fellows, and same as others, boys find us and other class fellows to create our group for the study” (Student 2).

“We need student group according to discipline; we also need seminars” (Student 3).

“Yes, after great difficulty I have found two or three, but if we were allocated our class group so we can discuss our issues, study together and unite together to solve our main issues” (Student 4).

“We have chat groups at our end not provided by VU” (Student 6).

“We can wish for these groups and a good step to make strong the student–teacher relationship” (Student 7).

“Because I am the only student of ELT on my campus ... so till now, I can’t find my group of VU students. I experienced a lot of difficulty in understanding the VU method of studying ... so the first semester is difficult for me ... no, VU doesn’t provide us with student’s group ... I found, on my own, a group other than VU ... and there are two ELT groups from different institutions and they are very helpful for me ... No campus, no student group, and no teacher help are provided” (Student 15).

“There must be a subject group or discipline-wise group” (Student 19).

“We have not been provided with groups ... we made our groups ... all our VU study is dependent on our group working ... but teaching support is not provided at a satisfactory level ... we need the WhatsApp group to directly answer the questions from instructor ... when this type of session

is organized, then many students will get advantage and improve the quality of the education system” (Student 11).

Characteristics of the Distributive and Collaborative E-Learning Model

e-learning model Characteristics	Distribution Model	Collaboration Model
Goal of teaching/ learning	Knowledge, Qualification	Competence
Knowledge is	Stored, Processed	Constructed
Paradigm	Reproduction, Problem solving, Understanding Remember	Reflection ¹ , to invent new experience active social practice
Technology use	Presentation, Distribution, Information	Collaboration, Communication
Learners mode of involvement	Acquisition Metaphor	Participation Metaphor
Teacher is	Authority or Tutor	Coach, Player
Teacher activity	Teaching Helping Demonstrating	Collaboration, interaction oriented practical experiences
Interaction type	Transfer model	Communication, Exchange (Interaction) model
Assessment Type	Knowledge Reproduction Test, Multiple Choice	Performance, Skill application, Evidence based assessment, e-portfolio

Table 4.1: Distributive and collaborative e-learning model (Ehlers, 2004)

4.1.2.3.3 Cross-University Competition

Were you provided with an opportunity to participate in cross-university competitions?

“When I came to VU, I tried to start join IEEE with other students of VU, in this society students working all over the world participate in competitions conducted. All top universities in Pakistan provide their students with an opportunity to join IEEE and encourage their students to get benefit from it. IEEE organizes a variety of events under the banner of IEEE International, ranging from educational workshops in information technology, national conferences, competitions, seminars, and occasionally extracurricular activities. We also want to be a part of that society, so we can analyze the education quality of our university by comparing it with other ones” (Student 1).

“I have never observed or compared my system with other universities ... because we have distance learning ... how to compare ... there are only students and a lab and nothing more than that ... we sometimes have to leave our lab too, when there are more students, and we usually sit outside ... we also communicated this issue to higher management but they take no action” (Student 7).

4.1.2.3.4 Student Participation in the Quality Enhancement Process

Does the University provide you with an opportunity to participate in the quality enhancement process through evaluation/feedback?

“I feel that they will ignore our statements or feedback and give no attention to our complaints ... yes, I found feedback in the last paper but I could not attempt because I was so tired and did not fill it” (Student 2).

4.1.2.3.5 Assessments System

Are you satisfied with the quality and frequency of assessments?

“Well, I noticed one thing is that ... in my degree program ... the assignments are given again and again, which means they repeat assignments ... Students already have access to solved-assignments in e-groups and they just submit after making some changes to it ... a readymade system of submitting an assignment ... if you change course handouts and curriculums so the student will not be in a position to get the advantage of old student resources ... the gaps in the system can be controlled if VU faculty wants to, otherwise, distance learning will not help make our students competent in their practical life. Pakistani students can have easy access to jobs in Middle East countries ... but our position in reputable jobs is decreasing day by day ... other countries are snatching jobs just because of quality education” (Student 14).

“In my mass communication group ... students sit together and solve quizzes mutually ... many students even took advantage of corona virus and did midterm sitting with their students and cheating ... what type of education is this and if they succeed in getting a 4 GPA in this way, then will they also succeed in getting jobs in the future? ... The time given in quizzes is also more than sufficient ... due to the very extra time, students used to open handouts and use student's resources to do quizzes” (Student 20).

“We have not been provided with an opportunity to do a missed quiz, this issue has been discussed in meetings during practices but the teachers said that this is not in our hands” (Student 6).

“Quizzes and GDBs are not rescheduled in any way, but there should be no problem in rescheduling them, it will show a symbol of convenience for a strong education system” (Student 7).

4.1.2.3.6 Course Update Process

Is the University updating your course regularly as per the requirements of the employer?

“One of my friends told me that VU lectures are as old as some of the teachers teaching is now no more with us means he has died ... such old lectures we are listening to ... the current interaction system between teacher and student is not effective for student progress and advancement. As an overseas Pakistani I am paying four times more than a simple Pakistani student ... we must be provided with interactive services and with fresh lectures, both are compulsory and important to provide quality education from university management ... there are lots of ways to improve this old e-learning system ... We must take advantage of new advancements in the field of technology ... why are we so rigid in educating, using old and obsolete methodologies ... that is the reason Pakistani graduates are not as successful in foreign countries and doing jobs

at a very low level, even when completing their education system from well-reputed Pakistani universities ... I think the course of MIT is completely obsolete ... very old knowledge ... I have completed my BSc in Electronics from UET, now all technology is going on in IT so there is a need to learn new courses of IT. I am not happy to see these old and obsolete courses as they are not as useful and beneficial for me ... as it should be ... the courses which they are teaching are no longer useful in practical field or market ... they are useless ... this is just a degree but not knowledge ... the world is far more advanced ... Market knowledge is completely unavailable in the computer sciences degrees of VU. I don't know about other degrees, but in computer sciences degrees the lectures and handouts need to be changed and improved after every three to six months because advancements in IT are evolving in very short gaps” (Student 14).

“Yes, we compare our studies with other institutions and we know that some of our lectures are very old and these lectures were recorded for the first time in 2002, till now they are not updated according to the requirement of our study type, we are the students of information technology and this field is changing even in minutes. We are studying C and C++ but in Punjab University and other institutions they are teaching C sharp” (Student 14).

“I also want to tell another issue, those last days when I was preparing for my exams there is a subject, its code is MCM 503. In this course, the lecture and handout are changed and have no relevance between them. I was so confused, then our seniors guide us that exam questions are made from the video lectures, not from the handout, so do not focus on handouts just listen to video lectures, this issue must also be resolved” (Student 9).

“Some lectures are very old ... we need the latest knowledge and new lectures because we are related to information technology ... we also want physical lab with our students with instructor labs, just like the students of biotechnology have ... We have discussed it” (Student 1).

“Yes, we have some old video lectures, recorded in 2002, today is 2019, you can imagine we are studying old version IT subjects. Our subject should be recorded again in a new version. So we get to practice new software” (Student 3).

“Yes, there are different issues which need attention and among these the problem of old recorded lectures” (Student 7).

“There is a difference between video lectures and handouts; most of the time lecture material is not matched with handouts” (Student 18).

“Video lectures are very old” (Student 19).

4.1.2.3.7 Library

Do you have access to the library?

“There is no online or physical library” (Student 20).

“No, we have not been provided with an online library facility in VU” (Student 1).

“Is a library provided ... no, we have not been provided with a library” (Student 15).

“No online library facility is available ... I needed articles for my thesis but there were no online library services that were there ... and we look here and there or request different groups on Facebook to crack articles for us ... this should be the responsibility of the university, to provide library facilities. I will not recommend anyone for admission to VU” (Student 18).

4.1.2.3.8 Faculty Training

Do you feel your instructors are equipped and well understand the teaching requirement of online learning?

“My supervisor often gave me his example of waiting for his supervisor for four hours and never said a word in front of him, then I used to reply to him that you must learn good things and you should not practice it with your students ... I faced lots of problems doing my thesis” (Student 21).

“I also complained about many things but most important among them are ... instructors of VU need vision, exposure, training, and knowledge ... They are far behind in these important qualities of education ... I told that there are lots of mistakes in their assignments and other material; eventually, I got fed up and changed my field from finance to management” (Student 21).

“Then another problem I faced was that when I needed help in running moderator ... nobody knows how to run it in VU ... again I was helpless ... then I saw lots of YouTube channels and after long efforts, I learned these techniques ... at one point I was fed up ... and I misbehaved with my supervisor by saying that I will do one more course, then I will leave doing thesis ... he said without my NOC you can't do it” (Student 21).

“Sometimes we are satisfied with the instructor and sometimes we are not and think the teacher might deduct marks because of our views and dissatisfactory comments ... it is in practice in my institutions and VU teachers do the practice of deducting marks” (Student 15).

4.1.2.4 Blended Learning

4.1.2.4.1 Meetings

Is a meeting schedule with the instructor possible? Do you want to stay connected with your instructor through telecommunication?

“One solution in distance learning is that the physical presence of the teachers is very important because the physical presence of the teacher will help the student in keeping their concentration

on studies and their guidance facilitates the student without going into different processes” (Student 9).

“Yes, teacher presence is very important if we want to get benefit from VU degree ... sometimes when I am listening to video lectures and don’t understand what the teacher is saying, then if I ask my seniors and they have no idea, then they say that leave it and learn it as it is written ... Prepare past papers ... you will clear the exams. I was so disheartened listening to this. How will I get skill doing this course? ... It will be impossible for me ... When I was in PUCIT, I and my class fellows gather in labs for practice and mutual understanding between classes. Fellows are very important for each other, but if we all don’t understand and unable to get a problem, then we request our teacher to tell us and solve our problem and, definitely, he gave us time and so teacher presence is very important for technical subjects” (Student 1).

“We need and miss our teachers ... sometimes it happens that when we are listening to our lecture and we don’t understand, we feel that our teachers to this particular subject be here so we can discuss our problems with them. We can improve our results if we are provided with our instructors. Another thing is that we also need a class fellows group created by the university. So we can help each other by discussing our requirements and convey our joint problems to the management of VU, so collective efforts will effect improvements to the current environment” (Student 2).

“We are trying to get the facility of hybrid classes that can be approved by higher management because all those students who did not study software or information technology subjects are facing lots of difficulties in studying these subjects. Hybrid classes and the instructor's presence are very compulsory for us” (Student 2).

“We want that our instructor should be available to us and we discuss our issues and teacher understands our problem and tells us according to our mental capability, and further communication throughout the semester should be managed according to our demands and needs” (Student 3).

“The most important service which I missed a lot is instructor presence, if this problem is solved then most students will come and join VU” (Student 3).

“We want to meet our instructors at least once a week to have valuable discussions with them, like the scope of our subject, and new information regarding our subject in the national and international markets” (Student 3).

“We want guidance from our teacher, they ask us what we have done, what is difficult for us ... if it is not possible every day, it's fine, but at least twice a semester, but they should come to students. We want to communicate with them but we are not provided with these facilities” (Student 4).

“But the best way is instructor availability to students even in a limited number of meetings for each subject. Each lecture is very wide and extensive, covering many things, which is very difficult for students to absorb and understand. This should be the responsibility of the campus manager to facilitate the students with what they want. We want one subject teacher one day in a week, this should be very feasible for management. When we find no way to understand our queries we go here and there, like I have contacts with Punjab University teachers and we request them to guide us in these points. We just want our physical guidance through the teacher” (Student 7).

“I missed my teachers, my class fellows, discussion with instructors, a brainstorming environment, and concluded the world is full of schools, colleges, and universities and if they are open and

educating millions of students it means there is a meaningful relation among all those facilities which they are providing to their students” (Student 7).

“As I am telling you my first-day experience, at least in the first semester we must have contact with our teachers in a physical meeting because students have recently come from conventional teaching and when they join VU teachers are abruptly snatched from them, which creates dissatisfaction among students and they leave the university” (Student 11).

“Hybrid learning with the first-year experience at the campus is very important” (Student 15).

“We also need live sessions, we communicate our problems, and through instructors we can solve these problems as soon as possible ... a campus meeting with the instructor is very necessary ... to improve quality of education” (Student 19).

“I would have got an opportunity to express my problems and would have been able to get help from a teacher and continue my studies calmly” (Student 18).

“We want at least phone calls from our instructor” (Student 3).

“I also want to have telephonic communication with my teacher ... some issues need to be resolved with the help of the instructor ... We also wish to have verbal communication with our instructor” (Student 15).

“I think telephonic communication of instructors with us ... is very important ... especially in the first semester when a student is new and the quality of questions is not as good as it could be; so, WhatsApp group chat and telephonic interaction is very important between instructor and students” (Student 16).

“Yes, I missed telephonic communication between student and teacher ... I did not find any problem in course work” (Student 19).

“It was good but it was a short time and only for SC101 not for others, we want this facility for other subjects too” (Student 4).

“We need this type of help a lot ... and we need it ... they must restart Adobe sessions for us to stay connected. No, the problem was the proper provision of that facility, we were only able to listen to their voice but unable to ask or say something regarding how to improve this facility ... I think students must have the liberty to ask questions and talk with instructors ... even then we need their attention ... I think this is why Adobe sessions cannot be successful” (Student 12).

4.1.2.5 Services of Student Facilitation Centers

4.1.2.5.1 Students Facilitation Centers

What is the most important element you require, according to your degree, in the student facilitation center?

“Here there is a lot of noise in the lab, the attendants are sitting together in the corner of the hall and students are making noise, there must be strong supervision in the lab and a separate discussion room must be reserved for this purpose so other students can concentrate on their study. I have spent two years in this university and no welcome party is arranged for us” (Student 9).

“We simply want our software programming teacher meeting with our whole class fellows in a separate lab, where only software engineering students can attend and take benefit from instructor presence, who can help us in developing new software and new development skills. At this time, we are here in these labs and doing coding practice and cannot locate our errors while working, in the last university we were using Visual Basic and, at this moment, we are practicing C++,

which is very easy, but it is now old and we want to practice the new latest language so we can easily adjust in the market” (Student 1).

“We must have our separate lab where only computer sciences students gather and work collectively like PUCIT. Labs practice is the only way to build a skill of software engineering which is an essential element for our career” (Student 1).

“The campus manager should at least have good communication with those students who regularly come to campus. If he creates a good environment on campus more students will come and find no difficulty in learning. We are kept less informed regarding extracurricular activities, when we visit our VU account then we come to know how many activities have been performed and this event happened a few days ago” (Student 2).

“No, we are not provided with instructor physical visits, but we need them, we have sent many requirement lists to administration, but they said we need some more time to provide your requirement” (Student 3).

“Another issue is that our campus is not neat, its location is not according to the requirement of an educational institution, its washrooms are dirty, the environment is noisy. The instructor is very important for undergraduate students especially for software engineering and computer sciences” (Student 6).

“Other issues include that our campus president and class representatives are not present on campus and whenever an activity is announced by VU, students face lots of problems in understanding the details of that activity. We made complaints and conveyed them to higher management regarding these issues” (Student 6).

“Campus infrastructure was also not good ... in Gujranwala ... Karachi campus was very pathetic and dirty and not up to the mark” (Student 18).

4.1.2.5.2 Infrastructure Issues

Are you satisfied with the services provided by student facilitation centers regarding infrastructure?

“We want VU campus to be located like an institution ... you can see that our campus doesn't look like an institution, especially the requirement regarding institution is not fully filled here, no cafeteria, no grounds, no bookshop, no proper common room for girls, no library. I want my university to look like a university. All these small campuses should be merging into a big and purpose-built institution” (Student 2).

“I don't like the location of this campus; we like a spacious place which should look like a university” (Student 3).

“You see the campus is very small but students are large in number ... many students do not get chairs even to sit ... air conditioner position is very poor ... even though they are instructed by head office to hire campus-wise private teachers to guide the students in a time of need, they do not hire the teachers ... normally they hire senior students ... which is not good service. Overall, all working staff are students of VU and doing different degrees, I mean to say their overall services are not good ... means it is not professional” (Student 12).

“We belong to remote areas ... and students do not have internet connection in their homes ... so they need to visit campus ... and want to get an education but when they visit campus and ask questions repeatedly ... they scold and humiliate them ... that is why they sit quiet; you can understand how new students will study ... I think a friendly atmosphere must be given to them so

they can happily do studies ... we often see many students who cheat in exams ... having cell phones during exams ... this is poor mismanagement ... I think those who have good relations with the campus manager are free to use cell phones during exams ... you know... did you ever talk about these issues to the campus manager ... campus manager is our relative ... many times I tried to bring these issues to the notice of the campus manager ... But they don't respond or are not serious in solving these issues" (Student 11).

4.1.2.6 Other Suggestions

"Like other universities, holidays must be given in the month of the severe season like June, but they give holidays after semester for one month twice a year which I feel is unnecessary. The lab is also closed in these holidays, so no one can take advantage of these holidays in any way" (Student 9).

"We have a strange system of extracurricular activities ... till the second semester, we didn't get a welcome party ... if it is arranged ... it will be a car parking. It is not the correct way to conduct functions here ... It is a federal university which should not face any problem in conducting its functions at a proper place" (Student 2).

"There is no tuck shop here on this campus, we as girls feel a lot of problems. We need a canteen on a priority basis. A lot of time is wasted if we leave and go out to buy some foodstuff" (Student 2).

"Work is manageable for those who are only students, but those who are professionals and doing jobs, they sometimes feel that the margin between the activities is very close and sometimes they are unable to manage, that is why many students send copied assignments and graded discussion board. We observe that all labs are open in the exam but, after exams, only one lab is open.

Workload problem can also be managed if the student's presence is ensured, this can only happen if everything which students need is provided on their campuses, for example, labs should be distributed according to discipline and the majority like one lab for computer sciences and computer engineering, one for commerce students and the remaining should be according to their number” (Student 20).

“We should be properly informed of extracurricular activities, not only through our student accounts but also through our campus in charge, so strong supervision can make our events unforgettable in life. Two days before we were listening that we are having our welcome party, now the University management is arranging a one-day trip on the fourth of December” (Student 1).

“Need fewer holidays in semester break so we can timely complete our degrees. Here semester break is very long” (Student 3).

“We have only one lab for biotechnology lab; there are some cities where biotechnology lab is not available like Okara, Putoki, Multan, Faisalabad, and Gujranwala. A mobile lab bus service is a good initiative, but this bus facility is not available to every city, still some students from other cities are coming to Lahore and these students bear a heavy expense for practical” (Student 7).

“No, this practice is not possible in distance education, I have no experience with instructor feedback, in case of poor grades or supply, in any subject. There is no motivation system for weak students, in any case, they are not interested in students’ personal problems” (Student 7).

“Yes, I was failed in one subject, but I cleared it on my own, no one helped me in clearing my subject. It is a place where students require teacher help” (Student 7).

“Another problem is that we have a deficient quantity of instruments in the lab; we have to wait even on lab day because the quantity of instruments in the lab is not according to the number of participants. VU administration has to manage the number of instruments according to invited number of students on lab day” (Student 6).

“Yes, I think the workload in a semester is somehow mismanaged because they take semester break approximately four to five and sometimes six weeks between two semesters, which is just time-wasting for the students, a one-week gap is enough time to take a rest and the rest of the time must be added in the semester. Here, in VU, courses are extensive and larger than the time available to study them. Immediately after starting the semester, as students start taking lectures and understanding their courses, graded activities also accompany them like a shadow and along with video lectures and graded activities students are informed to make their date sheet for a midterm. I experienced and saw evidence that many students face difficulty in preparing their exams and they get poor grades. I must say that at least two to three weeks must be added in the semester not only for the success of the student, but also to increase the student rate of connectedness in distance learning” (Student 11).

“While University was using absolute marking method ... the results of the students were not good ... many students complained regarding the University’s education system and were deciding to leave University ... then University changed from absolute marking to relative marking, which makes their results better than before and students get 70% to 75% marks and were very happy with the University” (Students 13).

4.1.3 Key Findings of Research: Themes and Topics Extracted from Findings

The results of the thematic analysis for the qualitative data of the study recognized five main themes based on framework matrices. These themes are named as: A) First-Year Experience, B)

Administrative Services, C) Curriculum Development, D) Student Facilitation Centers, and E) Blended Learning.

Main themes and relative strengths

Student	First-year experience	Administrative services	Services of student facilitation center	Curriculum development	Blended learning
Student 1	12	11	2	1	3
Student 2	12	8	6	2	2
Student 3	8	12	11	0	2
Student 4	15	10	8	9	5
Student 5	8	15	6	0	5
Student 6	8	15	0	0	5
Student 7	4	12	0	0	5
Student 8	9	10	1	0	4
Student 9	7	7	0	1	4
Student 10	10	10	1	9	1
Student 11	8	9	0	10	4
Student 12	5	5	3	1	4
Student 13	7	9	0	4	3
Student 14	12	8	5	1	2
Student 15	6	5	0	1	1
Student 16	11	9	1	5	0
Student 17	9	11	1	3	2

Student 18	12	13	3	2	2
Student 19	10	12	4	1	1
Student 20	10	14	11	12	10

Table 4.2: Main themes and relative strengths

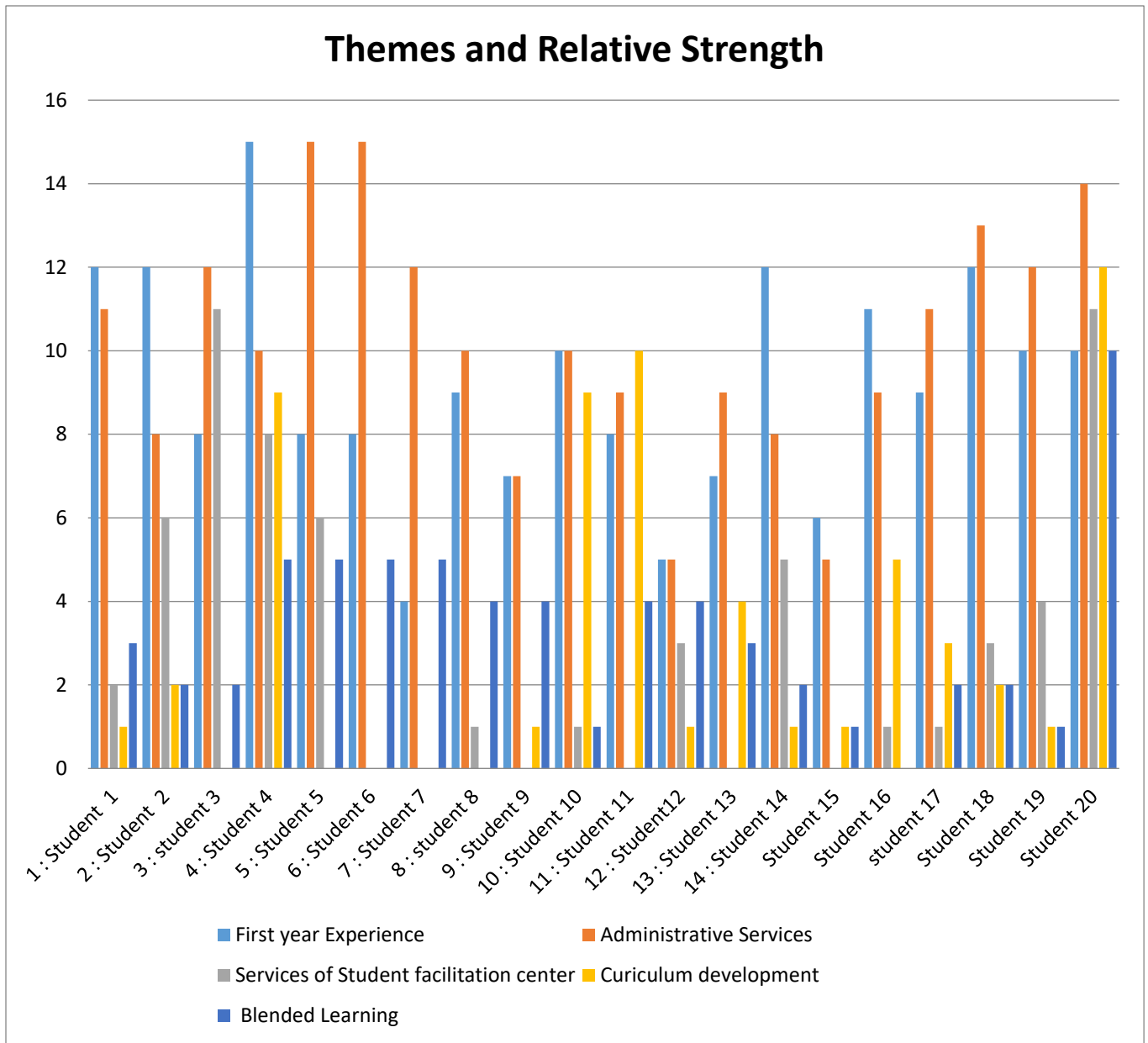


Figure 4.1: Main themes and relative strengths

4.1.4 Interpretation of the Preliminary Findings

Student support services, termed as e-learner care services, are considered highly important to improve the student learning experience of e-learning students; however, their provision is constrained by the resources of VU. The University follows a system of exchanging information about student support services with the students through the student care system, LMS, emails, e-help desk, complaints and suggestions, and students' evaluation surveys. All students' comments, problems, and suggestions are handled by expert personnel and by the Quality Assurance Department.

VU is striving to provide better student support services within limited resources. It is the only e-learning federal-based institute in Pakistan providing e-learning education. To improve the quality of education, VU conducts nationwide lectures on TV through media satellites, made available to the services of student facilitation services in 174 cities. VU helps students by providing information relating to e-learning services via a helpline and conducts an efficient and proactive approach to emails services for their prospective students. The limitations to improving student support services include increasingly large numbers of facilitation centers, less interactive lectures, less staff with excessive workloads, too many referrals, communication gap with their instructors, delay in reply, the attitude of instructors and supervisors, waiting times, poor support facilities and the limited capacity of administration in operational affairs.

VU encourages e-learners to participate in improving student support services at the university and to improve their quality of life. Students are invited to communicate about all their experiences regarding the services of the University, they are motivated through psychological support provided by the staff, and their opinions are respected and valued. Students are motivated and encouraged to participate in improving their support services.

Some other factors are seen to influence student support services, and ultimately the enhancement of the quality of e-learners' experience at VU. These include first-year experience, counseling services, strong interaction between student and teacher, technical support, services of student facilitation center, blended learning, self-efficacy in e-learners, and orientation problems. The links between different themes are presented in Figure 4.2.

Model of links between main themes

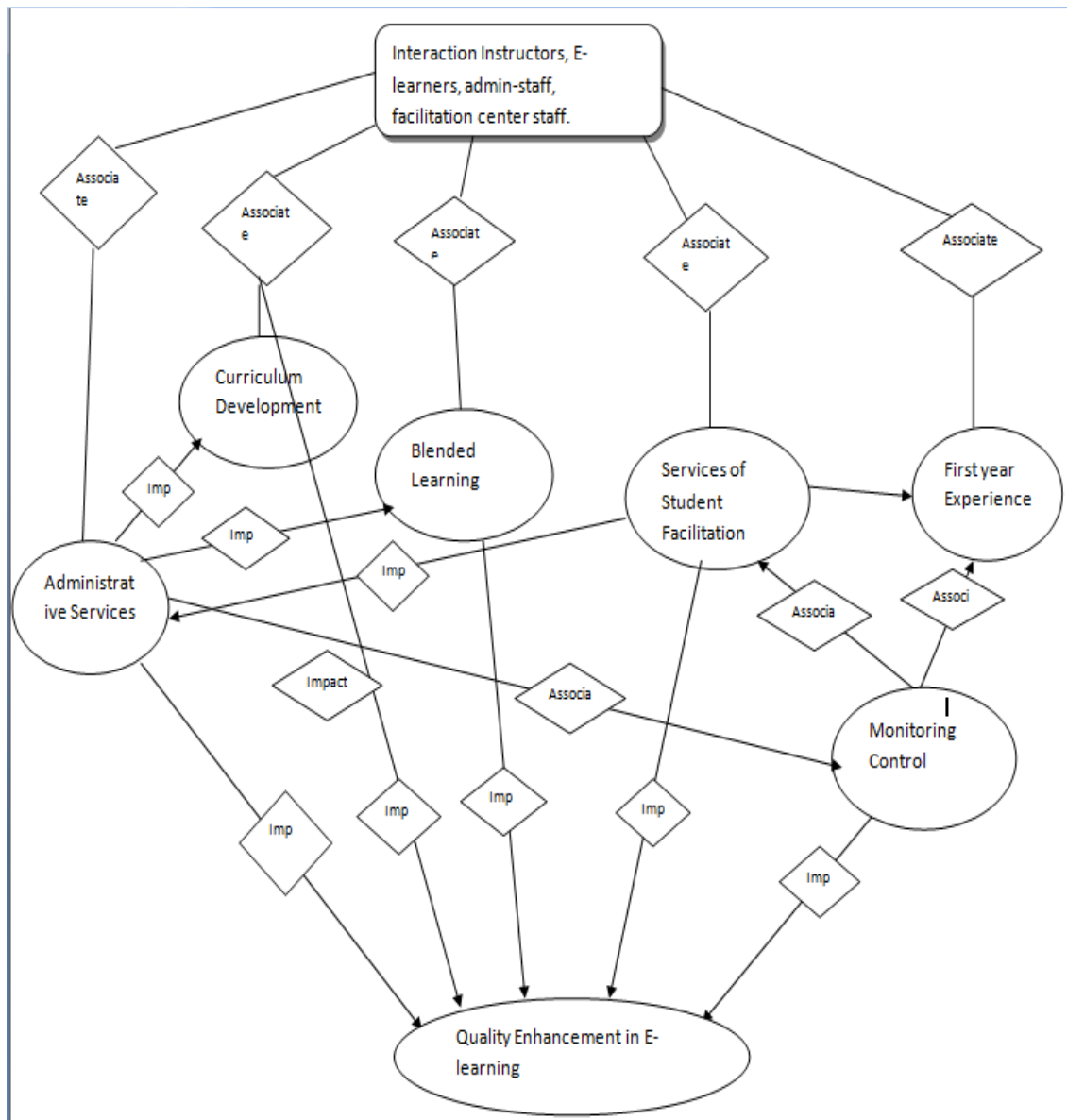


Figure 4.2 Model of links among main themes

Figure 4.2 shows links between different themes, it is interpreted that interaction has an impact on student support services, administrative services, first-year experience, and quality enhancement of e-learners. Services of student facilitation centers have an impact on learners' support services and quality enhancement. Blended learning has an impact on student support services and quality enhancement and is associated with the services of student facilitation centers and monitoring and control. Curriculum development and delivery practices show an impact on learner support services and quality enhancement of e-learners. Similarly, administrative services are associated with monitoring and control and have an impact on the quality enhancement of e-learners. Figure 4.2 also shows the association among administrative services, blended learning, curriculum development, services of student facilitation center, and first-year experience. Lastly, Figure 4.2 shows that learner support services have an impact on the quality enhancement of e-learners.

4.1.5 Interpretations of Themes and Topics Extracted from Research Findings

This section considers five main themes of customer participation at VU. In doing so, it explains how each theme helps or hinders e-learner student (customer) participation in the quality enhancement of e-learners provided by the University.

4.1.5.1 First-Year Experience

4.1.5.1.1 Communication

Communication is considered to be the most important and highly mentioned factor and is necessary for e-learners' participation to occur. The academic expert and the students agreed that without communication, students are unable to participate in the process of service exchange and cannot contribute towards improving the quality enhancement process.

“We connected with our teachers through moderated discussion board and email ... In the previous semester, we had an Adobe session in which there was just like a class in which many

students were there to listen to the lecture of the lecturer ... students were hardly able to hear the voice of the teacher but, most of the time, the lecturer's internet connection was not properly fixed and we couldn't hear what she was teaching ... due to this many students didn't participate in the adobe session ... at the end, there were only three students in the session. I think that's why they finished the Adobe session ... after this, we only have the opportunity to ask or to interact with teachers through email or moderated discussion board” (Student 12).

An Adobe session is good practice for new students in online education, but proper induction by completing its requirements is key to its success. Interaction between students and teachers is also important in Adobe sessions because without creating interactivity in meetings, listeners cannot ask questions.

“We communicate with our teacher through moderated discussion board, email, and another facility which is called Adobe. In Adobe session, we communicate through voice messages and chat. I get a link in the email, and then we connect through our teacher. It is a good but a short time and only for subject CS101 not for others; we also want this facility for other subjects too” (Student 4).

4.1.5.1.2 Adobe Session

“This Adobe session is not for every subject, this facility is selected by the university management. The Adobe session meetings are limited according to management discretion” (Student 7).

It is also important to note that Adobe sessions are completely selected by administration and only first-semester students can be facilitated for this, but students want this facility for other subjects too and they desire to have it in the next semesters. Many students miss the Adobe sessions in later semesters.

4.1.5.1.3 Motivation

“Build or motivate the students regarding their career through proper guidance and training and seminar is highly demanded ... so when they complete their degree they must be able to immediately become part of professional life.” (Student 11).

Motivation is the key to e-learning success because the previous learning experience of students induces in them the desire for this from their instructors. Motivation has to do with internal drive and individual interests. Students should feel more connected to themselves as learners, a low student-to-teacher ratio is necessary for probable student success, regardless of the format – in-person or online. Motivation can also be used to make e-learners sure that they have selected the right learning model which subsequently leads to the retention of students. To motivate students online, provide opportunities for students to personally connect to the subject matter; have students set their own goals; set up a system for self-monitoring and progress-tracking; encourage students to collaborate with you on the syllabus or course reading material; and act as the facilitator, rather than the transmitter, of information.

“Teacher's motivation for a student is very important for success, but I never received any motivation from a teacher, she only discourages me and often comments to me that there are many students better than you and you cannot do this ... many times I requested her to please show their work ... so I can see what is wrong with my strategy, but she didn't show me their good work” (Student 18).

4.1.5.1.4 Counseling

“Student counselors are allocated but the only tab is there ... it is not connected, I tried my best and many times, but I couldn't connect to any student counselor... Afterward, I stopped trying that tab” (Student 14).

“VU should provide us with a student counselor, because I have observed that there are many students who feel confusion in many subjects, like I want to quote that my friend was confused in choosing the subject, in this confusion he selected the wrong subjects and did not qualify in these subjects, and then he again studied another subject to qualify for the exams. So a student counselor is very important ... students have many issues like course selection, selection of correct degree program, and other prospective jobs relating to their education. They must allot a student counselor to us” (Student 6).

One of the important roles of a student counselor is to guide the students about the curriculum and its relevancy to their degree. There must be frequent interaction between the instructors and e-learners so the e-learners can feel comfortable about taking guidance from student counselors regarding their career, because the counselor is experienced, educated, and well aware of the latest market information that the student usually does not have. The counselor can also help the student by matching their current position to a path of success; they can even guide them on the availability of hidden opportunities. They can also help students by defining the importance and superiority of the subject in the course selection process. Some students are weak in their studies; some students also experience difficulty in their transitional time. A student advisor or student counselor can chase them or support them to resolve the issue of difficulty, to help them keep pace with their peers or with the schedule of their e-learning activities. By looking at students' records, a student advisor should also check those students who are not well connected with their LMS or who do

not visit LMS very often. These students are definitely in need of help and support from the university. If these students are not watched and identified at their initial critical time, then it can reduce the retention rate in the university. So student advisors can play an important role in enhancing student satisfaction; moreover, it also helps the university to increase its retention rate.

“No, we were not provided with any student counselor or student adviser with whom we can discuss our problems, other than studies, or if we want some guidance relating to our future ... I can tell you one incident related to your question, then you can best decide what type of relationship we have with our instructor and what type of counselor they become for us... once I posted a query to my instructor ... on reply he or she said that we have posted the answer to this query already, you please read it ... I again watched the list of moderated discussion board and read but I did not understand ... so I never asked the question again and the most important point is that it is distance learning and we have to solve our problems on our own, so you can imagine how they can afford student counselor” (Student 7).

4.1.5.1.5 Inspiration for Student

“When the first day I came and saw students are coming and taking orientation from the system and going ... nobody was there to receive us and say welcome to a new university, which I was expecting from it. I was so disheartened I left university for three months and came again for mid-term exams ... on exam day I found my old classmate ... then found a reason to again join a university” (Student 1).

“It is very important to consider the views of students, whenever we visit a place for the first time, there must be some person who is there for guidance. In student facilitation centers, some teachers or experienced persons from the administration must be there to say welcome to new students, as

we know in e-learning most of the students are doing jobs and experienced professional people who have more questions in mind than normal students. So, a lone video for orientation is not sufficient” (Student 7).

“In my opinion, the first occasion of the university should be very complete and welcoming so a student wants to come and study” (Student 2).

4.1.5.1.6 Personalization

“I was extremely in need of extra help in Advanced Financial Accounting ... but I did not get it from anywhere, especially from VU. I tried my best to communicate my message to the teacher, but they did not bother about my problem ... I asked a question to the instructor but the instructor did not respond as I needed or required ... then I tried to improve my subject and gave paper again, but I did not get my desired grade and I have to bear B grade ... but I was completely dissatisfied with the teacher’s attitude ... if there was proper teacher and student interaction ... I would have got an opportunity to express my problems and I would have been able to get help from a teacher and continue my studies calmly” (Student 18).

Some students want to stay connected with their teachers; instructors should understand them and stay connected with them as they are required. In personalization, students can set their own goals and study at their speed, they want to stay connected with their instructors; they can get motivation and satisfaction from communicating with concerned staff and administration personnel. In VU, most of the students especially required this facility in the first year of their learning. If students receive ample support from academic staff in the first year, then, in the subsequent semester, they will be able to take advantage of their training from the previous semester and build self-efficacy.

“From the very first I am not in this practice, I do not feel very comfortable because of delayed response from them” (Student 4).

4.1.5.1.7 System Adaptability Issues in the First Semester

“I am the only student of ELT on my campus ... so till now I can't find my group of VU students, I experienced a lot of difficulty in understanding the VU method of studying ... so the first semester is difficult for me” (Student 15).

The transition from a conventional system to e-learning is a challenging phase in a student's life (Albrahim, 2020). These changes are usually connected with the study environment, the fulfillment of academic tasks, and how students can achieve the formulated learning outcomes. It is important to focus on the expectations of first-year students by keeping the perspective of students in mind.

“Because I am the only student of ELT on my campus ... so till now, I can't find my group of VU students, I experienced a lot of difficulty in understanding the VU method of studying ... so the first semester is difficult for me ... no, VU doesn't provide us with a student's group” (Student 15).

“I communicate with our instructors through the moderated discussion board, email, and Adobe session. Sometimes I also faced problems in communicating with my instructor, sometimes I get an answer to my query very early, but sometimes it takes 4 to 5 days which is too much time to get an answer” (Student 9).

It is also considered that student failure has multiple contributing factors. It can be grouped into seven main categories (motivation, study habits and related issues, instruction and related issues, student's academic preparedness, external factors, student's attitudes, and other relevant issues). Borup, Graham, West, Archambault, and Spring (2020) admitted that “student engagement,

belonging, retention and success as integrated parts of a complex structure rather than a linear process” play an important role. “It is a need to identify such categories as an academic challenge, active learning, student interactions, enriching educational experiences, supportive learning environment, work-integrated learning”. Tight (2020) singled out categories of influencing factors, such as family background, student-related factors, social factors, economic factors, students’ goals, institutional experience, and institutional factors.

“I communicate with our instructors through the moderated discussion board, email, and Adobe session. Sometimes I also faced problems in communicating with my instructor, sometimes I get an answer to my query very early but sometimes it takes 4 to 5 days which is too much time to get an answer” (Student 9).

4.1.5.2 Curriculum Development and Delivery Practices

4.1.5.2.1 Study Material

“There are some certain lectures that do not provide handouts, we prepare our exam through video lecture ... our seniors tell us that they also did not provide any video lectures and handouts ... we have video lectures, but not complete lectures and, still, we are not provided with handouts and experience difficulty in exams” (Student 12).

“I also wrote in my feedback form that much work needed to be done to enhance the quality of education in e-learning. First, the finance subject instructor or supervisor needs more subject knowledge, change the first 6 to 7 subjects of MSBA as they are not up to the mark, also change MSBA lecturers who are teaching, who are not coordinated with their students” (Student 21).

Missing study material should be provided on a priority basis as the Registrar of VU told us that they have instructed the instructors and lecturers to add study material where they find the

material is not sufficient, obsolete, or not according to requirements, but some of the instructors do not make the effort” (Student 16).

4.1.5.2.2 Interactivity Influence Leads to Self-Efficacy

No doubt, the influence of interactivity has a great impact on streamlining the roadmap of an e-learner. When an instructor takes an interest in communicating with students and encourages them to do what is needed to be done, then the journey of an e-learner turns into self-efficacy. Without proper interaction between instructor and e-learner, self-motivation will not possible.

“I feel difficulty in the MGT subject, I am very behind in this subject. I don’t understand this subject. A person told me that there is a college in which this subject is taught with some fee. Yes, the first two semesters are difficult” (Student 4).

“I was extremely in need of extra help in Advanced Financial Accounting ... but I did not get help from anywhere, especially from VU. I tried my best to communicate my message to the teacher but they did not bother about my problem” (Student 18).

“We were not provided with this facility, but we want a group in which our class fellows along with our teacher should be added. So we can get a platform where we can interact with our teacher and class fellows. So the teacher can easily provide us with the latest information regarding the subject, new software arrivals, feedback on papers, career development information, and studies problem” (Student 1).

“We also need a separate group created by university ... I experienced much difficulty in studies because I never studied IT, I was a student of biology, I needed lots of attention from our teachers.... I tried hard and was able to find my other class fellows, and same as others, boys find us and other class fellows to create our group for the study” (Student 2).

“Because I am the only student of ELT in my campus ... so till now, I couldn’t find my group, I experienced a lot of difficulty in understanding the VU method of studying” (Student 15).

“The issue I faced when I started my research, I faced lots of problems ... you can imagine I have spent one and a half years in deciding my topic and still it is not yet decided ... whenever I sent an email they did not answer and give the answer after one month, whenever I tried to call they did not attend call” (Student 19).

4.1.5.2.3 Courses Allocation According to Instructor or Lecturer Area of Expertise

“I saw the profile of my supervisor, his field of interest was computer sciences and he was teaching management subjects to me, so I think that’s not fair” (Student 21).

“A supervisor or instructor’s field of expertise must be matched with the student's field of interest so the student can be guided very well” (Student 21).

It is also very important to discuss the matter that there are some instructors whose allocated subjects do not match their expertise and specialization. In VU the age limit for students is not fixed, that is why students' age, profession, and experience are sometimes more than the lecturers/instructors' education and expertise. That is why a very careful attitude is required to deal with these students. Students told me that they faced knowledge, vision, and exposure issues while interacting with them.

4.1.5.2.4 Delivery Practices and Checks and Balance System

“I also faced problems in communicating with my instructor, sometimes I get an answer to my query very early but sometimes it takes 4 to 5 days which is too much time to get an answer” (Student 9).

“Plagiarism policy is also not properly implemented ... Students copy others' assignments ... and get good marks” (Student 20).

“We connected with our teachers through moderated discussion board and email ... In the previous semester, we had an Adobe session in which there was just like a class in which many students were there to listen to the lecture of madam ... students were hardly able to hear the voice of the teacher but, most of the time, madam's internet connection was not in a position to properly communicate what she was teaching ... due to this many students do not participate in Adobe sessions ... at the end, there were only three students in the session. I think that's why they finished the Adobe session... after this, we only have the opportunity to ask or to interact with teachers through email or moderated discussion board” (Student 12).

“There is no plagiarism policy properly implemented in VU system ... one student is working very hard and spending 5 to 6 hours to make his/her own assignment, another is just copying that assignment ... both are getting the same marks ... there must be some distinction between these two students” (Student 14).

“I was extremely in need of extra help in Advanced Financial Accounting ... but I did not get help from anywhere, especially from VU. I tried my best to communicate my message to the teacher but they did not bother about my problem ... I asked a question to the instructor but the instructor did not respond as I needed or required and I got a 'C' grade ... then I tried to improve my subject and gave paper again, but I did not get my desired grade and I have to bear a B grade ... I was completely dissatisfied with the teacher's attitude” (Student 10).

VU is a federal university and is provided with ample resources for its operations. Management has struggled to properly structure its systems, but sometimes weakness in the quality control mechanism becomes a reason for customer's dissatisfaction.

4.1.5.3 Administrative Services

4.1.5.3.1 Workshops/Webinars

E-learning is widely used today as an extension of the classroom. For this purpose, the e-learner must be provided with an e-meeting system through a webinar, it is a great opportunity for the students of VU to take advantage of communication technologies. This will also provide an opportunity for students to know about each other, which includes instructors, students from all over the country, and the experts who are going to talk about the topic of study. The biggest advantages of e-learning are the availability of modern technologies to help students. Modern technologies can be used to deliver a lecture and e-workshop, and lecturers can interact directly with students through the internet by using video conferencing. During a webinar, different methods can be used to interact with the students including live, prerecorded, voice, and text chats.

“No, we have no seminars or workshops in VU; even if we need them on a priority basis” (Student 1).

“I must say that we must have at least two to three workshops each semester because our field is dynamic and we need to update our knowledge continuously. They are teaching us C and C++ but nowadays C sharp is very popular and every software is developing with the help of C sharp” (Student 7).

4.1.5.3.2 Student Collaboration

Collaborative learning is also one of the strongest pillars of e-learning because it provides opportunities to e-learners to know about each other, to take support, and to guide. Because no peer support is available in VU, students have to find their own group. Different groups have different conditions to become a part of a group, such as to share their exam screenshots of every question so the other students can take advantage in preparing them. Many students said they joined a group but that group did not make a contribution and add value in terms of support that is why members left the group.

“We were not provided with this facility, but we want a group in which our class fellows along with our teacher should be added. So we can get a platform where we can interact with our teacher and class fellows. So the teacher can easily provide us with the latest information regarding the subject, new software arrivals, feedback on papers, career development information, and studies problem” (Student 1).

“We also need a separate group created by University... I experienced a lot of difficulty in studies because I never studied IT, I was a student of biology, I needed lots of attention from our teachers ... I tried hard and was able to find my other class fellows, and same as others, boys find us and other class fellows to create our group for the students” (Student 2).

“We were not provided with groups ... we made our groups ... all our VU study is dependent on our group working... but teaching support is not provided at a satisfactory level ... we need the WhatsApp group to directly answer the questions from instructor ... when this type of session is organized, then many students will get the advantage and it will improve the quality of the education system” (Student 11).

The merits of collaborative learning are as follows:

- It enhances oral communication, guidance, self-efficacy, support, socialization, and leadership skills.
- It supports student–faculty interaction.
- It adds to student retention, building self-efficacy towards responsibility.
- It improves vision through social commitments and an improved understanding of varied perspectives.
- It provides training for upcoming real-life challenges, employment situations, and teamwork benefits.

4.1.5.3.3 Cross-University Competition

However, the institutions where students are not coming to university, do not conduct extracurricular activities due to students' participation and motivation from university or instructors. In VU, most students are job holders and busy managing their part-time education by just doing important activities. That is why the institution does not normally conduct these activities. However, there are some students who are full-time students and their discipline or subjects demand these types of activities, such as participating in cross-university competitions. Participation in cross-university competitions allows a student to build their confidence and their acceptance among conventional institutions. Students' participation in cross-university competitions also promotes the name of the university. Participation in the competition also utilizes marketing purposes too.

“When I came to VU, I tried to participate by getting other students to join IEEE, an international society, students working all over the world participate in competitions conducted by this society.

All top universities in Pakistan provide their students with an opportunity to join IEEE and encourage their students to get benefit from it. IEEE organizes a variety of events under the banner of IEEE International, ranging from educational workshops in information technology, countrywide conferences, competitions, seminars, and occasionally extracurricular activities. We also want to be a part of that society, so we can analyze the education quality of our university by comparing it with other ones” (Student 1).

4.1.5.3.4 Student Participation in the Quality Enhancement Process

“I feel that they will ignore our statements or feedback and give no attention to our complaints ... yes, I found feedback in the last paper but I could not attempt because I was so tired and did not fill it” (Student 2).

“Yes I often give very poor feedback ... they do not take action ... there are also many mismanagement problems regarding the system ... some teachers take 4 to 5 days to answer queries” (Student 12).

VU students participated in the Q/A process by submitting feedback at the end of each semester.

Many students give valuable suggestions to improve the student experience, such as providing them with services at the right time when they want that particular service. Another important point to bring to the discussion is that administration should not only rely on and consider the feedback from the questionnaire as a source of students’ views regarding the university’s student support system, but also conduct qualitative feedback by conducting student interviews, because student interviews will give the administration deep insights and the tendency of problems.

4.1.5.3.5 Assessments System

“We were not provided with the opportunity to do a missed quiz; this issue has been discussed in meetings during practices but the teachers said that this is not in our hands.” (Student 6).

“Quizzes and GDBs are not rescheduled in any way, but there should be no problem in rescheduling them, it will show a symbol of convenience for a strong education system” (Student 7).

The majority of VU students are working students and doing different degrees from VU, for professional development, they continue to enhance their learning. So, as part-time students, some educational activities are missed due to hectic routines. Most students want to take quizzes they have missed.

4.1.5.3.6 Preparatory Holidays Keeping in View the Interest of Job Holder Students

“I experienced and evidenced that many job holder students face difficulty in preparing their exams and get poor grades. I must say one- to two-week preparatory holidays must be given before the final exam, not only for the success of the student but also to increase the student rate of connectedness in distance learning” (Student 11).

“No, this practice is not possible in distance education, I have no experience with instructor feedback and help in case of poor grades or supply in any subject; there is no motivation system for weak students, in any case, they are not interested in students’ personal problems” (Student 7).

“Yes, I was failed in one subject, but I cleared it on my own, no one helped me in clearing my subject. It is a place where students require teachers’ help” (Student 7).

Students also want to have one-week preparatory leaves before midterm and final exams by reducing semester break by one week. Due to working students' business and their professional efforts, the university can decide to give these benefits to the students.

4.1.5.3.7 Course Update Process

“I also want to tell another issue that on the last days I was preparing for my exams there is a subject. its code is MCM 503. In this course, the lecture and handout are changed and have no relevance between them. I was so confused, then our seniors guide us that exam questions are made from the video lectures, not from the handout, so do not focus on handouts just listen to video lectures, this issue must also be resolved” (Student 9).

A course updating process is also required on a high priority basis because there are some subjects in which changes accrue quickly, like computer sciences, but the lectures for computer sciences were recorded in 2002. The IT field is dynamic and needs improvements and additions even after a short period.

“Yes, we have some old video lectures, recorded in 2002, today is 2019, you can imagine we are studying old version IT subjects. Our subject should be recorded again in a new version. So we get to practice new software” (Student 3).

4.1.5.3.8 Faculty Training

“Teacher's motivation for a student is very important for success, but I never received any motivation from a teacher, she only discourages me and often comments to me that there are many students better than you and you cannot do this ... many times I requested her to please show their work ... so I can see what is wrong with my strategy but she didn't show me their good work” (Student 18).

“I also complained about many things, but all in vain ... instructor of VU also needs vision, exposure, training and, most of all, knowledge ... They are far behind these important qualities of learning ... told them lots of mistakes in their assignments and other material, eventually, I got fed up and changed my field from finance to management” (Student 21).

“I was extremely in need of extra help in Advanced Financial Accounting ... but I did not get help from anywhere, especially from VU. I tried my best to communicate my message to the teacher but they did not bother about my problem ... I asked a question to the instructor but the instructor did not respond as I needed or required ... then I tried to improve my subject and gave paper again, but I did not get my desired grade and I have to bear a B grade ... but I was completely dissatisfied with the teacher's attitude” (Student 21).

“I also got a big problem with doing thesis ... I completed my thesis very late just because my supervisor did not understand me ... I did not understand what the problem was ... whenever I took my homework to the supervisor ... she did not like my work ... many times I requested her to please guide me on what is not correct in it but she only said that, no, this is not right ... but did not say what should I do that it can be corrected, but all in vain ... there must be training for instructors ... My supervisor did not guide me well ... I was extremely dissatisfied with the advanced financial accounting teacher” (Student 21).

“During my thesis, I was not satisfied with my supervisor ... I wrote a letter to the Registrar of VU that I couldn't continue my MSBA due to the supervisor's attitude ... he didn't resolve the issue and expressed his inability ... My supervisor threatened and scolded me because I had complained to the Registrar” (Student 21).

4.1.5.4 Blended Learning

4.1.5.4.1 Meetings

“One solution in distance learning is that the scheduled meetings of the teachers, at least in the first semester, are very important because the physical presence of the teacher will help the students keep their concentration on studies and their guidance facilitates the students without going into different processes” (Student 9).

“We need and miss our teachers ... sometimes it happens that when we are listening to our lecture and we don’t understand, we feel that our teachers to this particular subject are here so we can discuss our problems with them. We can improve our results if we are provided with instructors through scheduled meetings” (Student 2).

Full-time students of VU want the physical presence of instructors and lecturers. They are also in favor of scheduled meetings. In scheduled meetings, they want to interact with their instructors; they want a clear understanding of the subjects they are studying and to clear their misconceptions regarding the e-learning environment.

4.1.5.4.2 Telecommunication

“I think telephonic communication of instructors with us is very important, especially in the first semester when a student is new and the quality of questions is not as good as it could be; so WhatsApp group chat and telephonic interaction is very important between instructor and students” (Student 16).

“Yes, I missed telephonic communication between student and teacher” (Student 19).

Most students who live in remote areas definitely cannot attend scheduled meetings, so a telecommunication mode like Zoom and live streaming through Google Meet are the best alternative technologies.

4.1.5.5 Services of Student Facilitation Centers

“Here, there is a lot of noise in the lab, the attendants are sitting together in the corner of the hall and students are making noise, there must be strong supervision in the lab and a separate discussion room must be reserved for this purpose so other students can concentrate on their study. I have spent two years in this university and no welcome party is arranged for us” (Student 9).

The student facilitation center contributes value to e-learners living in remote areas because travelling from villages to cities to get an education is difficult. There are some centers where proper supervision and monitoring and control are required.

4.1.5.5.1 Campus Manager

“We often see many students who cheat in exams ... having cell phones during exams... this is poor mismanagement. I think those who have good relations with the campus manager are free to use cell phones during exams ... campus manager is our relative ... many times I tried to bring these issues to the notice of the campus manager ... But he doesn't respond and is not serious in solving these issues” (Student 12).

There must be surprise visits on campuses and proper and strong mechanisms must be created to evaluate the performance of campus managers. In cases in which a campus manager is found guilty of misconduct, then the campus manager must be fired.

4.1.5.5.2 Mismanagement

“Recently, we came across another mismanagement issue, our midterm syllabus was for 20 lectures but we were given exams from 22 lectures ... means those lectures were not included in exams according to instructions, were the part of our mid-exam ... many students sent emails but these types of emails are not entertained in VU” (Student 14).

Proper coordination must exist between academic staff and administration. The team’s leader working under heads of department must be very vigilant in checking the working of team members on a priority basis.

4.1.5.5.3 Infrastructure

“Campus infrastructure was also not good ... in Gujranwala ... Karachi campus was very pathetic and dirty and not up to the mark” (Student 18).

“Campus’s position is so pathetic and there is much mismanagement there...you see campus is very small but students are large in number ... many students don’t get chairs even to sit, the air conditioner position is very poor ... even when they are instructed by head office to hire campus-wise private teachers to guide the students in a time of need they don’t hire teachers ... normally, they hire senior students ... which is not good ... I mean to say their overall services are not good ... means not professional” (Student 12).

University management must be careful while permitting the opening of a private campus. Some private campuses’ infrastructure is too poor to believe that this is VU. Many students inspect buildings, area, furniture, surrounding environment, and parking before seeking admission at university level. Much attention is required from this perspective.

4.1.5.5.4 The Attitude of Staff Members

“I mean to say their overall services are not good ... means not professional ... professional means we belong to remote areas ... and students do not have internet connection in their homes ... so they need to visit campus ... and want to get an education, but when they visit campus and ask questions repeatedly ... they scold and humiliate them ... that is why they sit quiet, you can understand how new students will study” (Student 12).

The attitude of administrative staff must be very cooperative and dedicated to all the students who go to VU for study purposes. No one is allowed to humiliate students based on education, color, language, area, and status.

4.1.5.5.5 Programming Instructor Availability for Practicing Lab Work

“We simply want our software programming teacher meeting with our whole class fellows in a separate lab where only software engineering students can attend and take benefit from instructor presence, who can help us in developing new software and new development skills. At this time, we are here in these labs and doing coding practice and cannot locate our errors while working, in the last university we were using Visual Basic and, at this moment, we are practicing C++, which is very easy, but it is now old and we want to practice the new latest language so we can easily adjust in the market” (Student 1).

Computer sciences subjects are one of the biggest challenges in e-learning because this domain of knowledge always requires changes in the study material, video lectures, exam bank, workshops, webinars, and faculty training. Students also desire to have a programming instructor in student facilitation centers' labs, because the student experiences difficulties in doing work in labs.

4.1.5.6 Other Suggestions

“We have only one lab for biotechnology lab; there are some cities where the biotechnology lab is not available like Okara, Putoki, Multan, Faisalabad, and Gujranwala. A mobile lab bus service is a good initiative but this bus facility is not available to every city, still some students from other cities are coming to Lahore and these students bear a heavy expense for practical” (Student 7).

“While university was using the absolute marking method ... the results of the students were not good ... many students complained regarding the university’s education system and were deciding to leave university ... then university changed from absolute marking to relative marking, which makes their results better than before, students get 70% to 75% marks and were very happy with the university.” (Student 8)

A student also identifies a problem in biotechnology: lab courses are a big challenge. Many students studying this degree come from different cities just to attend the lab. Their expenses for these visits make their educational budget more than they estimated.

Another important thing is that students are very satisfied with the changed marking criteria, a relative marking curve, which made the results of students more attractive. However, the first and most important point to know about this system is that it applies in a conventional system where the students have the same features, such as their age, their previous learning experience, attendance, and so on. In cases when students' features are ignored and the relative marking curve is applied, then there are more chances to face problems, like the actual marks will be overshadowed in this way student’s grade does not reflect their understanding of that subject.

4.2 Factors Influencing E-learner Participation and Quality Enhancement in Student Experience

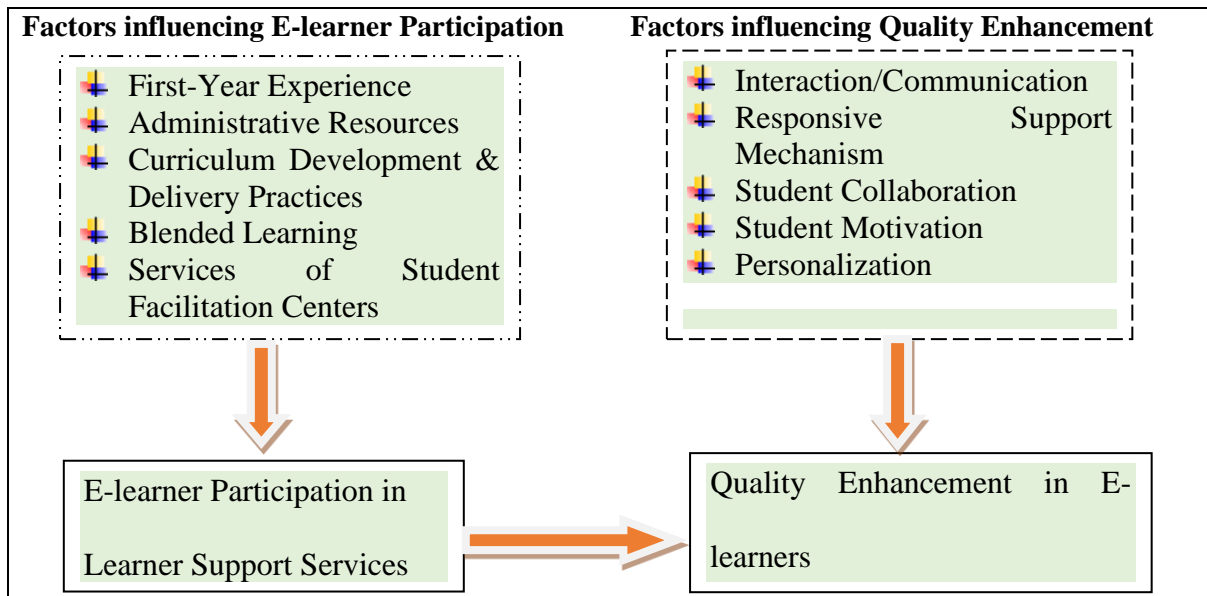


Figure 4.3: Factors influencing e-learner participation and quality enhancement in student experience

Figure 4.3 shows the five main factors which influence e-learner participation in student support services. These are presented as first-year experience, administrative services, curriculum development & delivery practices, blended learning, and the services of student facilitation centers.

Figure 4.3 also shows the five main factors which influence the quality enhancement of e-learners at VU. These are presented as interaction/communication, responsive support mechanism, e-learner motivation, and student collaboration. Additionally, it is obvious from the figure that there is a direct relationship between e-learner participation and quality enhancement.

It was observed that some common factors influenced both 'E-learner participation in student support services' and the 'quality enhancement of e-learners at VU.' Based on the nature of the themes and considering the views of the academic expert and the e-learners as evidence, it was decided to merge the factors affecting the quality enhancement of e-learners with the factors

affecting e-learner participation. For example, the first-year experience was merged with interaction and communication, administrative services were merged with a responsive support mechanism, curriculum development and delivery practices was merged with student collaboration, services of student facilitation centers were merged with personalization, and blended learning was merged with motivating to students. The new set of five factors was placed under a newly explored variable named E-learner participation determinants. The relationships between e-learner participation determinants, e-learner participation in student support services, and quality enhancement of e-learners, are presented in the next section.

4.3 Model of E-Learner Participation and Quality Enhancement of E-Learners

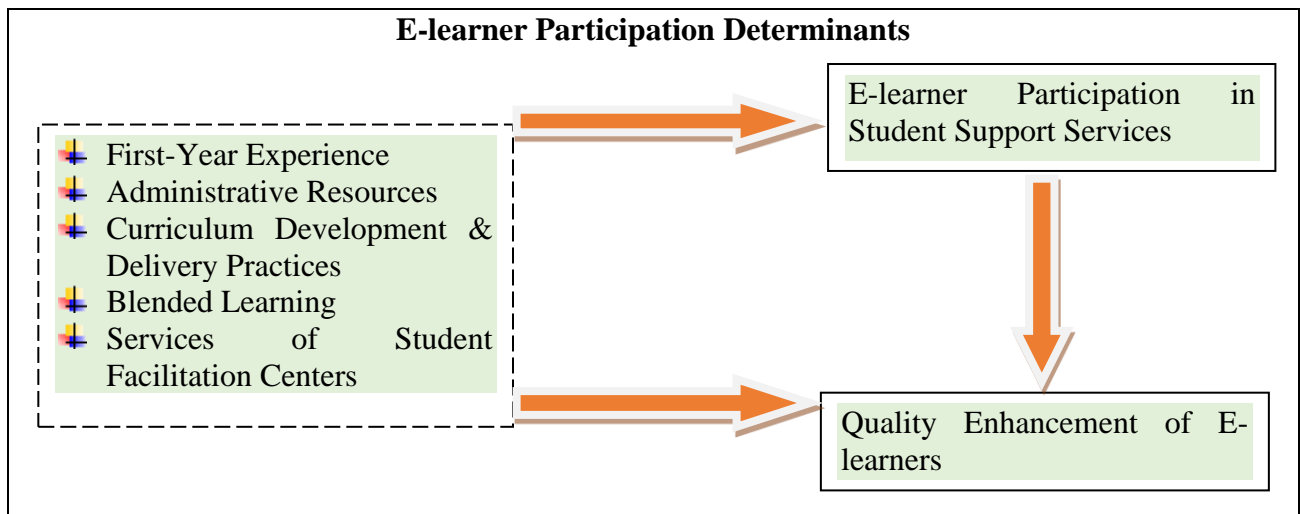


Figure 4.4: Model of e-learner participation and quality enhancement of e-learners

Figure 4.4 shows the five main factors of E-learner participation determinants presented as first-year experience, administrative services, services of student facilitation centers, curriculum development and delivery practices, and blended learning. As indicated in the model, 'E-learner participation determinants' is observed to show direct relations with 'E-learner participation in student support services' and 'quality enhancement in e-learners' at VU. The model also indicates

that e-learner participation in student support services is directly related to ‘quality enhancement of e-learners.’

4.4 Chapter Summary

This chapter has illustrated the multidimensional nature of e-learner participation in learner support services and the quality enhancement of e-learners at VU. There are many commonalities in the findings between the academic expert and the e-learners’ views. This study was designed to explore the issues related to e-learner participation and e-learners’ experiences and to gain insight into the academic expert views, to develop a greater understanding of the issues, experiences, and e-learning needs of the e-learners. The preliminary findings of the study assisted the researcher to explore the main themes and topics of e-learner participation and quality enhancement. These themes were then merged to form a set of five common factors in the newly explored variable named ‘E-learner participation determinants.’ The qualitative study also proposed that three important relations exist between the e-learner participation determinants, e-learner participation in student support services, and the quality enhancement of e-learners.

CHAPTER 5: DISCUSSION AND RESEARCH FINDINGS

The purpose of this chapter is to discuss the findings from the exploratory research about research questions and the themes which emerged during the research. The themes derived in the qualitative study were established from a review of comments and literature of academic experts and e-learners, providing an insight into e-learning students, student experience, and quality enhancement of e-learners. Sub-themes derived from thematic analysis help to highlight the issues faced by e-learning students in a meaningful way, and to give voice to this unique population.

5.1 Research Questions

Following the gaps in the literature, the following research questions are formulated for this thesis:

RQ1 What are the determinants of student participation in the provision of student support services to e-learning students of Pakistan?

RQ2 What is the relationship between student participation determinants and e-learning students' experience with student support services?

What is the relationship between student participation determinants and the quality enhancement of e-learning students?

RQ3 What is the relationship between student participation in student support services and the quality enhancement process for e-learning students?

To answer the research questions, a qualitative approach was employed. Preliminary in-depth interviews with academic expert were conducted, followed by in-depth interviews with e-learners to explore the student participation determinants and to examine the relationships between these determinants, participation of a student in student support services, and the process of quality

enhancement in e-learner experience. The latter used thematic analysis to explore further factors of student participation determinants and to test the relationships.

5.2 E-Learner Participation Determinants in the Provision of Student Support Services for E-learning Students

The model, developed from the qualitative interviews, revealed five themes that formed the ‘E-learner Participation Determinants’ in the provision of student support services to e-learning students.

The qualitative study proposed three relationships between the main propositions:

- a) The ‘E-learner participation determinants’ were related to ‘student participation in student support services’
- b) The ‘E-learner participation determinants’ were linked to the ‘quality enhancement of e-learners’ and
- c) ‘Student participation in student support services’ was connected to the ‘Quality enhancement of digital education students at VU’.

5.2.1 Relationship of ‘E-learner Participation Determinants’ with ‘Student Involvement in Student Support Services’ and ‘Quality Enhancement of E-learning Students’

This section describes the relationships of individual factors comprising ‘E-learner participation determinants’ with ‘Student involvement in support services’ and the ‘Quality enhancement of e-learners’.

5.2.2 First-year Experience and Participation of Students in Support Services

It is important to explore the need for student transition in e-learning. The previous experience of studying in conventional education is a hurdle because when students graduate and change their mode of education from traditional mode to e-learning mode they find difficulty in adjusting their activities in the first year. Student retention in the first year of online study is also significant (Cascio, 2020), there is a need for experts who can focus on first-year issues and their solution to facilitate students such that they do not leave education (Kyeremeh, 2020). Universities are finding effective policies and their best implementation to give better solutions to first-year problems to minimize the rate of attrition (Sangster, Stoner, & Flood, 2020). Social scientists are working to bring solutions to this problem by understanding the behaviors of e-learners. Challenges of the transition period need a proper systematic approach because as well as e-learning students there is also a market of students who want to enhance their knowledge and expertise by using the latest knowledge delivery system. These professional employees work in organizations where their dream to excel is possible only with knowledge enhancement (Felix, 2020).

Until now, due to the unavailability of a proper systematic approach which brings the supplier and user close to each other by solving their transitional issues in the contact of the digital world. Researchers agree to bring the students for a short period of their degree programs on campuses by giving an environment and training to convert their abilities from actions-based to system base (Gantt, 2020; O'Connell & Education, 2020; Peters et al., 2020).

The qualitative study revealed that 'First-Year Experience' was one of the most important 'E-learner participation determinants.' Academic expert and e-learning students agreed that without satisfying on-campus training in the first year of e-learning, students would be unable to take part in the process of service exchange and could not contribute towards improving the student support

services (De Silva et al., 2020; Van Doren, Shields, & Soto, 2020). The first-year experience was, therefore, considered the best way through which students could participate in the provision of support services for e-learners.

It became apparent from the findings of the qualitative study that student participation in student support services at VU was initiated when e-learners started gathering information through communication with sources from within and outside the University. This information helps students to form a perception about the quality of support services for e-learners being offered by the University, assisting them in making comparisons with the student support services offered by different universities. In other words, the students will be in an improved position to evaluate the different available options to choose from a list of service providers.

It also became evident that, after students registered with the university, they interacted with academic experts (lecturers, instructors, technical staff, and administrative staff) through indirect interaction. Direct communication, involving face-to-face interaction, is demanded by the students as the preferred way to convey their ideas or suggestions to enhance the quality of the support services for e-learners at VU. The University also encourages student participation through their feedback system, overseen by the Quality Assurance Department, which includes online evaluation conducted at the end of the semester. Thus, the qualitative findings indicate that a strong communication system can encourage students to participate in student support services provision. Hence, 'Interaction' shares a direct relation with student engagement in student support services.

5.2.3 First-Year Experience and Quality Enhancement

The findings of the qualitative study highlight an important tool to improve the quality enhancement of e-learning students (Boettler, Goldfine, Leech, & Siegrist, 2020). It was recognized that academic experts and students, during combined interaction, could exchange ideas and information to improve the quality enhancement of the e-learning students (Schwedler & Kaldewey, 2020). Students should be provided with the opportunity to communicate with other students, and they must be encouraged and motivate each other to improve their quality enhancement (Nemickienė & Nemickaite, 2020). The academic experts suggested that students should communicate with instructors, lecturers, and the deputy director QEC at VU, whose responsibility it is to listen to their complaints and suggestions and to help students in improving their student experience (From & Rattleff, 2020). Many students were not in habit of using the communication set-up and they strongly suggested that the university should improve the communication system and conduct regular interview sessions (Voronova, Karpovich, Stroganova, & Khlystenko, 2020). Participating in the interview session for this research encouraged the students to share their experiences, and made them feel happy that their voices were being heard. In brief, interaction is considered one of the most appropriate ways through which the quality enhancement of e-learning students can be improved (Melville, 2020). E-learners interact with instructors, administrative staff, and friends to get motivated and develop an interest in studying to get a healthy student experience (Howlett, 2020). The qualitative findings indicated a direct relationship between ‘first-year experience’ and ‘quality enhancement of e-learning’ (Bilanzola et al., 2020; Culver & Bowman, 2020; De, Galand, & Frenay, 2020; De Silva et al., 2020; Muñoz, 2020).

5.2.4 Administrative Services and Student Participation in Student Support Services

The administrative services mainly comprise faculty training, workshops/webinars, cross-university competition, feedback, assessment system, course up-gradation process, library services, and student collaboration, which are made available for the convenience of the student, who has direct or indirect access to them. Considering the nature of this research, the term ‘administrative services’ described the support services provided to e-learning students by the University. These services are based on the number of trained and experienced academic and non-academic staff; the financial resources of the University are used to provide curricular and non-curricular activities at the University. The value of services provided by the University depended upon the availability of these resources.

A qualitative study showed that VU is the only specialized e-learning university in Pakistan which provides education at a reasonable fee. Despite limited resources and a high number of students, the University is reported to provide distinguished student support services in comparison to other universities in Pakistan in e-learning. Many distinctive features encouraged students to participate in student support services. For example, recorded lectures, student facilitation centers, the freedom to make date sheets, number of course selection, exams on weekends, study at home, and transfer of a student from national to international status are provided to e-learners. But, at the same time, some factors discouraged students from participating in student support services. For example, the course updating process is very slow and expensive; according to the Registrar they spend 7 million rupees on single course development, it is very expensive. It is also strange to know that VU staff is not provided with any financial benefit for course development and recording. One lecturer stated that if they change the policy and start giving financial benefits to their employees for recording lectures, many doctors in every department will be ready to record

their lecture and the factor of unnecessary delay launching recorded lectures will diminish. The Registrar said that we try our best to find a person who is best in his/her field and settle a contract for recording lectures but many times people break the contract and stopped recording. The researcher believes in using VU staff for recording lectures, in this way VU can save time and money.

It is important to discuss the training of faculty members because students want to interact with their instructors not only through controlled and text-based communication but also through other sources, for this purpose faculty members need a lot of training programs. Text-based communication is controlled by an instructor; that is why lots of queries are left unexplained which creates confusion, misunderstanding, and dissatisfaction among students. The findings indicate that if student support services provision is of good quality, then it would encourage student participation.

The literature suggests that a firm's resources play a significant role in building a strong customer–service provider relationship, which has a significant impact on the firm's reputation and profitability (Lavecchia, Oreopoulos, & Brown, 2020; Shikulo, 2020). The resources include an impressive landscape, courteous staff, equipment, physical facilities, and easy access to desired locations which give information about the services provided by the firm (Hong, Anh, & Hong). Customers using these resources are in a better position to participate in activities that create value for them and help them to judge the quality of service being rendered to them (Hong et al.) Additionally, a firm's resources can create an emotional reaction in their customers, which can motivate them to participate in service provision (Bassett, 2020). Therefore, it is considered important to develop a firm's resources to create a positive image in customers' minds, which

encourages them to play their role in improving the service provided to them (El Alfy & Abukari, 2020; Holcombe & Kezar, 2020).

The above discussion concludes that the qualitative study showed ‘administrative services’ is a very important determinant of ‘E-learner engagement in support services’ and shares a direct relationship with ‘Student participation in support services’ (Dospinescu & Dospinescu; Masoumi & Lindström, 2012; Naim & Alahmari, 2020). Hence, these research findings partially address the second research question.

5.2.5 Administrative Services and Quality Enhancement of E-Learners

The qualitative study also showed that access to appropriate student support services greatly influenced the e-learner’s quality enhancement process. It was observed that the biggest stress for students was the feeling of isolation. The abrupt change of mode of education from conventional to e-learning system, in addition to text-based communication, queries not replied to, less attention from the instructor, non-interactive lectures, and unavailability of students added to the students’ stress. The qualitative findings also illustrated that social activities conducted and organized through subject-based groups brought a positive change to the life of students. Many students who are studying abroad feel isolated and want to contact their subject fellows to improve their understanding regarding studies. Thus, the literature supports the argument that the University’s facilities influence students’ comfort, thus leading to better quality enhancement in student experience (Fithri, Utomo, & Nugraha, 2020; Jamkar & She, 2020). Additionally, through subject-based groups, an opportunity of social engagements can be provided by the University, which can show affection and care for its students and provide them with a feeling of comfort and sincerity to help them improve their quality enhancement of e-learners (Noreen, Umar, Sabir, & Farooq, 2020).

It is thereby concluded that the qualitative study showed that administrative services are a very important determinant of ‘Student participation in student support services,’ and has a strong relationship with the overall quality enhancement process (Lam & Dongol, 2020; Vershitskaya, Mikhaylova, Gilmanshina, Dorozhkin, & Epaneshnikov, 2020). Hence, these research findings partially address the second research question.

5.2.6 Curriculum Development & Delivery Practices and Student Participation in Student Support Services

Curriculum development and its delivery practices have the most significant relationship with the quality enhancement of e-learners. Meaningful e-learning experience comes from learning material, curriculum, and well-designed courses (Choudhury & Pattnaik, 2020; Wongwuttawat, Buraphadeja, & Tantontrakul, 2020). E-learning course material has information quality when it is accurate, complete, and understandable (Mullen, 2020; Nielit & Thanuskodi, 2020), and the quality of it can be measured using consistency, relevancy, completeness, and accuracy (Zainuddin, Chu, Shujahat, & Perera, 2020). Learning is a complex activity because it is influenced by teaching resources, curriculum, and teaching skills (Kolakowski & Ebrahim). Sheerah (2020) found that information quality has a strong positive effect on learners’ satisfaction. Flexibility, quality, and the relevance of contents are features of the curriculum (Almarzooqi, 2020). In VU, the study material consists of video lectures, handouts, reference books, web links, and slides. Although the study material is mostly decided when a course is developed, most subjects were designed in 2002 when the University started functioning (Rodríguez-Rodríguez, Sánchez-Paniagua, Sanz-Landaluze, & Moreno-Guzmán, 2020). Many courses are re-developed due to new research and advancement in many subjects like IT courses (Hiar, 2020). IT courses still need changes and additions due to their dynamic nature. VU is continuously trying to change, modify,

and add new concepts to their lectures. Due to continual work on the curriculum, students' participation in student support services is positive. But, at the same time, some factors discouraged students from participating in student support services. There are some subjects whose study material is not complete, there are some subjects for which lectures are completely recorded but handouts are not available, there are some subjects whose handouts are available but the recorded lectures are missing, some students have to do exam preparation from only handouts, and there are some subjects in which only slides are available as a study material. Some recorded lectures of computer sciences are very old and have not changed since 2002. Many students face lots of problems studying them; a student told me that when they practice programming language in current software it gives errors and they have to email instructors, then instructors tell them that the software has changed and now you have to practice in other ways. The findings indicated that the good quality of students supports services provision encouraged student participation.

5.2.7 Curriculum Development & Delivery Practices and Quality Enhancement of E-Learners

For curriculum development and delivery practices, it is very important to make the objectives clear regarding the accomplishment of instructors' or lecturers' competencies to develop the teaching material. There must be relevance between the contents of the online course and the competency of the lecturer; there are some other competencies that are important from the learner's point of view, which include course material explanation, assignments' level (whether students will be able to complete it or not), evaluations of the course in the shape of response from students' tests, supplementary material for understanding the course, e-links, and a student portal where they are connected to their institute (Koutselini, 2020). Students face lots of problems when the curriculum is incomplete and the lecture delivery practices are insufficient (Aprianto, 2020a). It is

suggested that students want to interact with their instructors or lecturer because they want a reasonable channel and a trustworthy path through which the benefits of learning can be enjoyed, which include personalization, consistency of responses, and elimination of the communication gap. The above-mentioned factors have a great influence on the smooth continuation of e-learners' activities as well as their motivation to carry on using LMSs. In other words, the influence of interactivity also helps the academic staff to know about the clarity of the curriculum, which includes their handouts, slides, recorded lectures, and their assessment system and style (Koutselini, 2020; Roffe, 2002). The immediate response of students is a mirror of academic structure and its true implementation. The communication between VU lecturers and instructors and their students is weak and controlled. This controlled communication does not allow students to enhance their learning experience. In an educational structure, the role model and source of inspiration are normally teachers, but in VU the source of inspiration is students' peer group and seniors. Because the new student does not know the system or the culture of online education and because no academics have continual interaction with new students, new students do whatever the seniors guide them to do without knowing whether the practice is right or wrong. The most common wrong practices among students are to stay connected with other students, make groups with them, and to buy solved past year papers, solved assignments, and GDBs. The influence of interaction is completely missing which leads to quality deterioration rather than quality enhancement. Incomplete study material, wrong curriculum delivery practices, and inefficient checks and balances of academic staff lead to student dissatisfaction (Aprianto, 2020b). Some of the students were completely unaware of course and program outcomes; some students said that they were doing mass communication and VU included lectures which were out of their subject domain, like economics. After the researcher told them the purpose of teaching this subject they

commented that VU must purposefully record the lectures and tell students, who are studying the subject for the first time, about them.

5.2.8 Services of Student Facilitation Centers and Student Participation in Learner Support Services

The services of e-learner facilitation centers are owned and controlled by the VU of Pakistan. These facilitation centers provide an opportunity to the students regarding campus-based study (Shikulo, 2020). Here, normally, the students studying full time can stay on campus and are provided with a computer lab that is fully air conditioned, a campus manager, lab manager, and IT expert. Normally, full-time students visit and completely participate in student support services (Falode, Chukwuemeka, Bello, & Baderinwa, 2020). In student facilitation centers, students meet each other but mostly try to interact with those students who have some discipline. There are no teaching staff from VU in student facilitation centers to interact with these students. These student facilitation centers also fulfill the need for an examination hall on assessment days (Genc & Kocdar, 2020). There are two types of student facilitation centers: one is private and the other is VU campus. The performance of student facilitation centers depends on the campus manager. There is no distinction between the performance of private and VU-based campus managers (Gregg, Chang, Wang, Ward, & Clariana, 2020). Due to the good performance of campus managers, students can participate in student support services, such as listening to recorded lectures, maintaining discipline, study in groups, and interact with University through campus staff (Motswagosele & Butale, 2020). But there are some issues relating to student facilitation centers which are of serious concern due to which students are not able to participate in student support services, which include incomplete infrastructure, atmosphere of indiscipline, campus location, building condition, parking area for students' conveyances, poor condition of air conditioner, non-

cooperative attitude with students especially those from remote areas, and students cheating in midterm and final exams; these issues are especially reported in remote areas where regular or surprise visits of administration are not conducted. The students on these campuses cannot participate in student support services. The above discussion concludes that the qualitative study showed that services of student facilitation centers are an important determinant of e-learner participation in learner support services.

5.2.9 Services of Student Facilitation Center and Quality Enhancement in Student Experience

The qualitative study found that some of the campus managers do not provide all the facilities which students should be able to use in a student facilitation center. The majority of the students did not discuss the incomplete services from campuses. Students want to approach management about them but do not believe these problems can be solved by them. Many students said that from time to time they tried to communicate with management but they did not see any improvement, which is why they stopped communicating with them; however, if management conduct in-depth interviews with randomly selected students, then they will come to know about problems in detail. It is also found that proper provision of services at student facilitation centers will not be possible unless and until strict checks and balances and surprise visits are undertaken by the administration department in different cities of Pakistan. It is found that the campus manager plays a significant role in enhancing the online experience by: encouraging a helpful attitude from staff members; exerting proper control over the campus, complete infrastructure, and computer labs; by preparing a seating plan for men and women; providing a proper common room for girls; providing a disciplined environment; providing a parking area and, most importantly, understanding the problems which have to be resolved by the administration to make the student experience superior.

Many campus managers are keen to make their name good, they used to hire private instructors to solve the academic problems of students, for example, if students are facing a problem in some subjects, then they hire an instructor according to the need of the students by using their discretionary right to enhance quality. It is appreciated. One campus manager, who owns a private campus, practices some important services for making quality enhancements by opening the campus on Saturdays and Sundays. Many students comment that there are some private universities that have weekend classes because there are many job holder students who want to continue their studies for different reasons. The basic theme of VU also includes making contributions to the life of professional students who cannot join college due to their family and job responsibilities. VU should also conduct weekend programs to facilitate its students; this will bring true quality enhancement to the life of an e-learner.

5.2.10 Blended Learning and Student Participation in Student Support Services

To increase the understanding, enhancing student involvement, and strong interaction between instructor and learner are found significant factors to improve online education. These factors bring outstanding student satisfaction and improve the rate of retention of e-learners (Rasheed, Kamsin, & Abdullah, 2020). These factors or determinants are taken from face-to-face education; the purpose is to combine them with e-learning education to improve the e-readiness among new e-learners. A mix of e-learning and conventional education is called blended or hybrid education. This emerging concept is playing an important role in the acceptance of a new mode of education all over the world. This hybrid system is also considered the only single unidentified trend in the education sector. The importance of active participation in the current scenario is considered and acknowledged as more preferable and dynamic than the traditional one. In this approach, both teacher and student co-create value by working in partnership and both will be responsible for

completing their role in the instruction procedure. This value co-creation makes every partner understand their responsibilities towards task completion. Blended learning has several advantages like student collaboration, interactivity influence, and improvement in e-learners' rate of retention (Priambodo, Hariyanto, Dinata, Ristiano, & Prakoso, 2020).

Sharma, Nand, Naseem, and Reddy (2020) stated that in online education, classrooms are very large, their instructor focus is on lecture delivery, and students remain unknown to their instructors or lecturers, but active participation brings confidence and a broader vision for the active participant. Siddiqui, , and Thomas (2020) revealed a conceptual framework of hybrid learning in which they proposed four conditions for a successful journey of an e-learner in their book *How People Learn*. These conditions are community centeredness, assessment centeredness, knowledge centeredness, and learner centeredness. In the fourth condition of learner centeredness, all policies are designed keeping in view the requirements of the learner. The third condition is related to knowledge-centeredness, in this condition, students' previous learning experience will help to design their future needs. In the condition of assessment centeredness, it is assumed that there is a need to find ways to properly conduct feedback to effectively measure the learning of students. The first condition relates to community centeredness; without student collaboration the desired results of e-learning cannot be achieved. Martyn and Lin (2017) studied the book *Seven Principles of Good Practice in Undergraduate Education* written by the famous authors Chickering and Ehrmann; this book promoted the concept of interaction between lecturer and student, enhancing cooperation among e-learners, promoted the culture of active learning, getting feedbacks early, increasing the time for curricular activities, expecting maximum student involvement, and analyzing the learning of students according to their diversity. It is very important to note the difference between the curriculum, practices, and level of interaction taught in a traditional setting

and considering them as a requirement in e-learning. No doubt, correct and effective integration of distance learning and conventional learning can fulfill the requirement of the modern education system. The resultant version of education will be more addressable and make the environment of learners more conducive. These global collaborative educational opportunities and evolving teaching and learning modes of education have become possible due to advancements in technology and the availability of IT. The availability of communication resources and web-based technologies have created and extended the possibilities of hybrid learning. IT and availability of resources have given the world a new meaning of education in terms of online education.

According to the literature, without blended learning, distance education has no meaning now; it happened due to rapid advancement in communication technologies. Due to communication technologies, connecting with customers is now easy and fast. VU is still using an online mode of study and an Adobe facility is only provided in the first semester on selected subjects, as decided by the administration, but it is highly demanded by the students for face-to-face study. There is now an advanced mode of online learning but the University administration does not understand the requirement of today's world and students, which is why students are unable to participate in student support services. This is because of the gap between University and students, if the administration uses a qualitative approach to gather students' views relating to the current mode of study, then they will come to know about students' dissatisfaction regarding the current system of education. Students want to switch from the current model to the blending mode of e-learning so that they can easily participate in student support services.

5.2.11 Blended Learning and Quality Enhancement in Student Experience

HEIs are increasingly using blended learning strategies to deliver course content to diverse and dispersed student cohorts. A mixture of traditional classroom education and e-learning is called

hybrid learning or another term is a flipped classroom. The reason for this approach is that it creates possibilities of cost-effectiveness due to flexibility in time, content, and place of study.

For the correct execution of hybrid learning, the program demands consistent and coordinated preparation. Previous studies state that continuous assessment of hybrid learning programs is essential. Hybrid learning in higher education programs improved retention by correlating the students with the attainment of their future goals. It also improves attendance at traditional classrooms; the punctuality of visits to online resources through an institute's portal improves student satisfaction and students' performance in exams.

The students' attitude toward blended learning is positive. Effective blended learning makes students active learners in their area of specialization. The LMS aids blended learning.

An organization's strategic goals regarding the provision of blended learning can be made very clear through the collective efforts of academic staff. Academic staff also tries to provide a flexible learning environment in which e-resources and guidance will help them to become a part of this conducive environment. In this way, the student will be more inclined towards this proposed model of hybrid learning (Zhang & Dang, 2020).

Another implication is that if the instructors at VU were trained to design instructional material that improves the learning of students, then the students will take an interest and feel motivated towards their curriculum design.

Engelbertink, Kelders, Woudt-Mittendorff, and Westerhof (2020) suggested that faculty engagement in the process of learner integration in the hybrid model is very important because the faculty members will feel confident and able to get desired results.

This new model of education is completely dependent on the expertise of stakeholders of this system as beneficiaries, the more developers are involved, the more advantages that can be taken from this new model of education; in the future, stakeholders will have to think how this digital world can more effectively be used to provide learning opportunities for the coming generation. It might be possible that this hybrid model of education takes the place of human effort through applications or machines when making and bringing more innovation and creativity (Mirmoghtadaie, Kohan, & Rasouli, 2020).

In VU, it is time to convert the mode of education from asynchronous online teaching to synchronous, to enhance the quality of e-learning. Students living in big cities can be provided with this facility due to their large number and competition, and where arranging or engaging instructors are comparatively possible as compared to remote areas where a deficiency of resources does not allow the University to arrange classes.

In remote areas, telecommunication can make the dream of blended education possible. Student facilitation centers, where internet connectivity devices are available, can help students to stay connected with their instructor through the telephone. This will help to enhance the quality of students' education.

5.3 Role of Public Institution

“One thing I believe is that an educational institution must have a valuable role in the life of a student. If the institute believes in enlightening a student’s life, then it can only be done through providing all those facilities which a student needs. A proper learning environment not only opens the door for the success of a student, but also makes a good name for that institution. Otherwise, if the institution only wants the fee or to just carry on as a normal business, then not only the career of the student will be at stake, but also the young generation of Pakistan who will not be

well equipped to break the vicious circle of poverty, which they have carried on their shoulders since independence” (Student 7).

5.4 Key Implications of the Research

5.4.1 Integration of E-learners Participation Model in Service Exchange at VU

5.4.1.1 First-year Experience

A qualitative study, by adopting a qualitative approach, has improved the peripheral validity of the overall study by overcoming the limitations of adopting a single method. The main findings of this study can be applied to the co-created process model for e-learner participation in the service exchange according to the following discussion.

The first-year experience is considered a very important theme which can influence e-learner participation in student support services. The first-year experience includes communication, orientation, personalization, student counseling, student motivation, and system adaptivity issues in the first semester. The students effectively participate during the production, negotiation, and usage phase, in the production phase, during the intercession phase, and before the practice phase to develop a strong relationship with one another. The above-mentioned services are considered to be helpful to students for their complete and comfortable transition from a conventional to a purely online environment. The physical presence of administration or teaching faculty can make the first day online very useful and can help the e-learner to understand what this online education demands and the challenges they might face and their solutions. But, on the first day, the students are not prepared to handle challenges and only shown a video and given promises for quality of education. A student told me that they were disheartened to see only lab attendants for their welcome. Many students change their subject or are weak in studies, they want more attention as compared to other students, and personalization will lead the instructors to focus on the students

that need their attention. These students can be easily located from the moderated discussion board and their mid-results. Student counselors are allocated but that system does not work. Student counselors should try to contact the students allocated to them, in this way students will easily and calmly contribute to student support services.

5.4.1.2 Communication

Communication is considered a very important theme that can influence student involvement in support services provision. E-learners can communicate and should be encouraged to communicate with the VU about its provision of student support services during the service exchange process. The student and the University can communicate more effectively during the production, negotiation, and practice phases, during the production phase, and during the intercession phase, and before the usage phase, to build a strong relationship with one another.

Interaction before the supplier-controlled production phase can be encouraged if the University and e-learning students exchange information about the quality of student support services provided by VU. A good way to manage this is the Quality Assurance Department of VU, which holds the authority to organize teams to conduct regular surveys of e-learning students. This type of communication will help the University to review its provision of student support services and design the e-learning services according to the suggestions and opinions provided by the e-learning students in the form of feedback. Talking about feedback, a majority of the students who study at VU do not give feedback as asked for by the University. Communication before the supplier-controlled negotiation phase and during the negotiation phase involves indirect student interaction with academic and non-academic staff at VU. This phase involves the indirect interaction of both the parties involved (i.e., instructors, lecturers, administrative staff) when the students communicate with the University during their interaction hours. It is observed that since the

University came into existence there is only indirect communication between the students and all VU staff, whether academic or non- academic; due to indirect communication there exists a communication gap that leads to non-participation in student support services of e-learning students. When students do not properly convey their voices, judgments, demands, problems, and tentative solutions to their problems, then the process of continuous improvement will stop and there will be no enhancement in e-learning.

5.4.1.3. Administrative Services

Administrative services, including skilled staff, course updating process, feedback system, workshops and seminars, and cross-university competitions, can influence e-learning students' participation before and during the production phase, and during the negotiation phase of the service exchange process. Sufficient and organized university resources providing comfort to students will improve students' perceptions about the student support services provided and encourage them to participate in the provision of these services.

5.4.1.4 Curriculum Development and Delivery Practices

Curriculum development and delivery practices are important in determining academic staff's participation in the quality enhancement process because they are the immediate caretakers of students and, due to a very strong bond with the students, they can considerably influence student participation. It is noteworthy that curriculum development and delivery practices strongly influenced student participation in the service exchange process.

Student facilitation centers can influence students' participation in student support services during all periods of the service exchange process. Both during and before the production phase, VU staff can encourage students to give feedback about support services and help in improving the support

services provision, and during the negotiation phase, when students have indirect interaction with academic and non-academic staff.

The students need to have direct contact to get help either physically where possible or, if there are some areas where physical interaction is not possible due to location or overseas student, then telecommunication services must be provided. It will help the student to participate in student support services which will lead to quality enhancement of e-learners.

5.5 Research Findings and Contribution to Theory

This study merged marketing and education theories, it has shown that without involving e-learners in the provision of VU's student support services, quality enhancement will not be possible. Based on service logic ideology, this study focused on the overlooked concept of value-in-use.

This research uncovered the perceptions and experiences of e-learning students about student participation in student support services provision, which enhances quality in e-learning.

The discussion in the literature, including customer participation, stated that it is important to propose a model in an educational institution which could enable the successful integration of supplier processes with customers in the process of value creation.

The core contribution of this study is that it will bring improvement to value co-creation theory regarding e-learning, as discussed by Ehlers (2004), and it introduced a new co-created process model for e-learner participation in service exchange. This study has also proposed that value can be co-created through student participation at multiple points during phases of the service exchange process.

Ehlers (2004) focused on the perspective of the learner but he focused on the subjective perspective of quality in education. He tried to bring his ideology to the mind of policymakers, public, and private educational institutions. He noticed a need to upgrade individuals' competencies and learning process development at the individual level. Training on an individual basis favors the concept of personalization which elaborates the concept of personality training biographies through constructing a system of standardization in the process of lifelong learning (National Academies of Sciences & Medicine, 2020). Today, we should not only focus on knowledge and information delivery, but we must also consider the application and acquisition through which we can generate ability, by communicating the knowledge through the process and the use of technological tools without which information delivery is impossible to spread (Schniederjans, Curado, & Khalajhedayati, 2020). There is a need to develop skill among the community according to its usage context and individual preferences.

There are structural and general reasons to include the learner perspective in the process of service delivery apart from previous recommendations. In the area of service delivery, specifically in learning quality, it is now considered and believed that it is a co-production process between learner and learning environment. The learning environment contents are considered the responsibility of the student. The learning process does not mean that it has to be fully provided by the e-learning provider, it induces a student to become part of it through the process of co-creation among all the stakeholders of that environment. The outcome of this co-creation process is not the same as the production outcome from production processes. The value co-creation process does not only include students in the process of service delivery, other factors, such as resources, are also important, like finance, institute, and legislative requirements.

Ehlers (2004) recommended that the development of quality in an e-learning environment should start from the learners' perspective. He further revealed that the inclusion of the perspective of students is becoming a leading concept for enhancing the quality of e-learning education. For this reason, the federal-funded VU of Pakistan was selected because it is trying to provide quality education at reasonable and economical fees.

Apart from empirical evidence, there are also more general/structural reasons to focus on quality from a learner's perspective. For example, as in the area of services in general, quality in learning has to be considered a co-production process between the learning environment and the learner; thus, a learner is partly responsible for quality. A learning process is not something that is delivered to a learner by an e-learning-provider but rather it constitutes a process of co-production between the learner and the learning environment. That means that the product/outcome of an educational process cannot be exclusively influenced by the 'production processes' of an educational institution. The definition of quality, therefore, has to be defined at the final position of the learning-services, as there is the learner. Of course, this does not mean that the learner's perspective and preferences alone have to be taken into account: economical, organizational, or even legal regulations have to be considered. Quality development from a learner's perspective, therefore, means to take the learners' preferences as the starting point of quality development in all other areas.

Elaborating further, this study is an exploratory study which has provided a deeper understanding of student participation by exploring the key e-learner participation determinants and the relative contribution of these determinants to the overall participation and the overall quality enhancement of the e-learning of e-learning students.

Finally, the study finds that, unfortunately, there are no clearly explained realistic applications of the concept of quality enhancement involving co-creation pertaining to the framework of the student support services provided to e-learning support services in an undeveloped nation like Pakistan, especially in the context of education. This study has described the implications of the co-created process model of e-learning participation, when applied to the context of the VU of Pakistan, by transferring their rights in the shape of benefits to the e-learning students and managers of the University.

5.5.1 Research Findings and Benefits for E-Learning Students at VU

E-learning students can take advantage of participating at different stages and phases of service delivery in the student support services provided by the University, as indicated in the 'Co-created process model of e-learner participation'. Students' involvement will allow students to inform the University about their particular needs and, in this way, they will be in a position to get benefit from specialized student services.

Student participation leading to customized services will ultimately make the students feel happier because of the fulfilment of their desired or suggested needs, and they will have few or no complaints to make to University management regarding student support services provision.

Ehlers (2004) suggested that student participation would bring improvement to the provision of student support services, which will help other non-participating e-learning students to benefit from it and encourage them to participate and become a part of the co-created process model of e-learner participation.

Another obvious benefit for a student participating in the service exchange process is the information quality that students desire, according to their preferences and requirements, can contribute to useful conversion into value-in-use (Jääskeläinen, 2020; Yu, Xu, & Emery, 2020).

Students can gain personal benefits, like nourishing their self-credibility, position, and self-belief, as well as effective benefits related to growing experiences, sense of contribution, self-expression, satisfaction, and humanity (Finkenstadt, 2020).

Student participation will, therefore, help the students to take control of their life activities, while coping with their studies, thereby improving the quality of their e-learning experience.

5.5.2 Research Findings and Benefits for Academic Expert at VU

The results of this study have significant implications for the managers of the investigated university. The ‘Co-created a process model for e-learner participation in service exchange’ is anticipated to be a valuable tool for the academic director of VU to get benefit from e-learner involvement-based strategies (Schumann, Wunderlich, & Wangenheim, 2012).

An important point of student involvement for e-learning institutes is that when students act as a stakeholder in the process, there is a need to transfer some part of the responsibility to the shoulders of e-learners. In this respect, fewer issues in terms of complaints will occur regarding service delivery.

The University can encourage student participation through strengthening communication at different stages, to ask e-learning students about their specific unmet needs (Yang, 2019).

University management should invite e-learning students to participate in regular short interviews. This will help the managers to know more about the students’ perceptions of the quality of student support services being provided. Based on the students’ views, the University management can

design strategies to bring timely improvement to the student support services it provides, thereby improving the quality of students' e-learning experience.

Student participation will also assist the academic staff in the University to gain the benefit of competitive advantage from providing customized services to e-learning students. Customized service can also draw non-price benefits that support the university, together with a better ability to cope with competency-related issues to e-learners' greater willingness, and enhanced service outcomes due to increased customer involvement in the service delivery process, thus sacrificing convenience for a better fitting product (LaCroix, 2019).

5.6 Limitations of the Study

This study developed a model based on an exploratory study about customer participation in student support services provision, subsequently assessed using empirical research, in the context of a specialized federal e-learning university in Pakistan. Hence, the findings cannot be generalized to other distance learning institutions in Pakistan or to service firms other than e-learning institutions, without confirmation by replication studies.

It is observed that small changes in the wording sometimes produce major changes in the distribution of the responses, the answers to earlier questions can influence later questions, and the respondents' answers are sometimes affected by the question format per se. All these issues can limit the outcomes of the study (Opie, 2019).

During the interview stage of the research, it became apparent that the situational environment of the Pakistani community could not be ignored, which had an impact on the design of the interview protocol and on the decision to use the purposeful sampling technique.

5.7 Recommendations for Future Research

The research highlights the importance of conceptualizing e-learner participation determinants as a multidimensional construct, and the relationships of the e-learning participation determinants with the overall participation and the overall quality enhancement process. Its findings and limitations led to several conceptual and methodological recommendations for future research.

Future research should aim at the refinement and a subsequent generalization of the results. This involves the replication of the present research by applying the integrated process model of customer participation in student support services in different in Pakistan, as well as in other culturally diverse countries.

Further study is recommended to understand the student participation determinants, and what contributes to student participation determinants in student support services provision. Although this study has identified five key e-learner participation determinants, it does not intend to provide a measuring tool for the e-learning student participation determinants as a multidimensional construct. A special study to further test and verify the measures in a survey form would result in better measures for further research. Specifically, future research can build upon this research as a foundation to test the integrity of each item, towards developing a framework for measuring the components of e-learner participation determinants in student support services provision department-wise. This will contribute to consistent outcomes of future research in e-learning.

As mentioned in the literature, Ehlers (2004) has defined customer participation in the service process as:

Apart from empirical evidence, there are also more general/structural reasons to focus on quality from a learner's perspective: in the area of services in general, quality in learning has to be considered a co-production process between the learning environment and the learner; thus, a

learner is partly responsible for quality. A learning process is not something that is delivered to a learner by an e-learning-provider but rather constitutes a process of co-production between the learner and the learning environment.

However, further research should look to improve the outcomes of this study, and explore the relationships between 'student satisfaction' and 'student participation determinants,' and between 'overall participation' and 'overall quality enhancement in student experience' in the context of e-learning students.

5.8 Conclusion

It is important in today's economy that organizations and stakeholders move ahead of traditional ways and make a shift towards the use of co-creation factors which involve interaction between the two parties and provide sustainable benefits. Such a system can also be used as part of co-creation in the educational department. In co-creation, educational institutes tend to build a relationship with the students and bring them to a verge of benefits and make them knowledge and economy stakeholders. As interaction is an integral part of the educational system, it is implied that such systems are learner-centered and promote the active participation of learners in all the fields to improve their learning experience. Other factors, such as peers and faculty, also influence the learning process of students. Co-creation helps educational institutes to maximize the positive experience of learners, improve their innovative skills, and focus on learning and creativity. An educational institute also considers the feedback of other stakeholders. Moreover, in the process of co-creation, educators are enabled to take benefit from external factors and internal factors, like organizational strength. The increase in online course technology has also influenced educational institutes. Co-creation initiates the cross-pollination of new models of learning and teaching involving the use of technology.

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