STUDENTS' SATISFACTION TOWARDS ONLINE LEARNING: A STUDY AMONG HIGH SCHOOL STUDENTS IN UZBEKISTAN

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Tarikh:
Oleh:</td></tr>
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Tarikh: <u>25/9/2011</u></td><td>Pengesahan Pegawai:
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Nama: <u>Mazyana Hashim</u>
Tarikh: <u>25/9/2011</u></td><td></td></tr>
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STUDENTS' SATISFACTION TOWARDS ONLINE LEARNING: A STUDY AMONG HIGH SCHOOL STUDENTS IN UZBEKISTAN

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ABSTRACT (ENGLISH)

The purpose of this study is to examine the students' satisfaction towards online learning: a study among high school students in Uzbekistan. In the past decade, the interest in using the Internet and World Wide Web in the classroom as part of the learning environment had increased drastically. This study presents an attempt to examine the relationship between students' satisfaction and four other factors which are, perceive ease of use, perceive usefulness, webpage quality and online notes. The framework of the study is based on technology acceptance model. In the study 488 high school students from Uzbekistan provided their responses. Descriptive and correlation analysis are used to analyze the relationship between the factors that affect students' satisfaction. The results of the study indicated relationships between students' satisfaction and three other factors which are, perceive ease of use, perceive usefulness and webpage quality. The findings of the study suggest that perceive ease of use, perceive usefulness and webpage quality are important factors that can affect students' satisfaction when studying online.

ABSTRACT (BAHASA MELAYU)

Tujuan dari penelitian ini adalah untuk mengetahui faktor yang mempengaruhi kepuasan mahasiswa terhadap pembelajaran online. Dalam dekad terakhir, kepentingan dalam menggunakan Internet dan World Wide Web di kelas sebagai sebahagian dari lingkungan belajar telah meningkat secara drastik. Penyelidikan ini menyajikan usaha untuk menguji hubungan antara kepuasan pelajar dan empat faktor lain yang, melihat kemudahan penggunaan, melihat kegunaan, high laman web dan nota dalam talian. Rangka kajian ini adalah berdasarkan model teknologi penerimaan. Dalam kajian tersebut 488 siswa SMA dari Uzbekistan disediakan tanggapan mereka. Deskriptif dan analisis korelasi digunakan untuk menganalisis hubungan antara faktor-faktor yang mempengaruhi kepuasan pelajar. Keputusan kajian menunjukkan hubungan antara kepuasan pelajar dan tiga faktor lain yang, merasakan kemudahan penggunaan, merasakan manfaat dan kualiti laman web. Penemuan kajian menunjukkan bahawa persepsi kemudahan penggunaan, melihat kegunaan dan high laman web merupakan faktor penting yang dapat mempengaruhi kepuasan pelajar semasa belajar online.

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In the Name of Allah, the Most Gracious and the Most Merciful

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LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Over the last decade, interest in using the Internet and World Wide Web in the classroom as part of the learning environment has increased dramatically. The value of online learning has become widely recognized and accepted. Recent developments have put pressure on companies and academic institutions to integrate online courses to their environment.

The pressures include: developing enhanced learning environments, creating online courses, accounting for cost reduction, revenue growth (with more students per course), and improving the quality of education. Methods for effective implementation of online material has, however, well understood and has few studies evaluate the user acceptance of Internet-based learning systems (ILS).

Online learning is one of the most important recent developments in the IS industry. The development of asynchronous online learning systems has presented a unique challenge for both schools and industry. Methods of assessing the effectiveness of online learning systems is a critical issue in both practice and research. However, the value of online learning systems can be assessed using a single point-scale, such as global satisfaction. The extent of online learning systems must integrate various aspects of online student satisfaction to become a useful diagnostic tool. Traditionally, the evaluation of both student teaching effectiveness (SETE) and user satisfaction (U.S.) scales were used to evaluate teaching quality or user satisfaction with IS.

1.1 Problem Statement

Online delivery of educational information is no longer considered a bad or good move, but an inevitable move for colleges and universities if they intend to maintain a market share of students. The student market is not shrinking, but the lifestyles of students are changing. Students looking for feasible means of obtaining a quality education while holding full employment and family responsibilities to meet. Asynchronous distance education programs provide feasible means. Ongoing research provides quantitative data to support the growth of online enrollment, improving student retention and success rates and development of online learning through the addition of new educational institutions, programs and increasing current (Allen & Seaman, 2007, p. 2). Now, managers of colleges and universities must ensure that schools deliver instruction online information can meet the academic expectations of students online. Because students are an important component of all academic education, more understanding academic leaders and faculty members have the perceptions of students about the practices used in implementing online courses, the best college admission may be to ensure quality academic education and positive learning experience. The Horizon Report (2008) "Placing people and relationships at the heart of the information space will have a profound impact on all levels of the academic community".

Technology has progressed from being a device support in the field of education to be a vehicle for delivery of teaching online courses. The increasing use of technology in education is forcing educators to reevaluate the importance of perceptions of students on teaching practice school, because "... The role of students change and development of online environments (Lofstrom & Nevgi, 2007). Allen & Seaman (2006 & 2007) reports provide statistics on the academic leaders, faculty members, and their acceptability to potential employers "of online courses. In a newsletter published by the U.S. Distance Learning

Association, Hartman (2007), Director Dexel University Online of Academic Affairs, explained that employers have to develop a more "... favorable attitude toward online instructions (p. 1). Their finding value in e-learning will promote the development of this type of learning; therefore, by understanding students' perceptions of online learning, educational institutions improve the quality and practical application of this service.

Through this study, the students' perceptions and experiences with online learning will be used to discover what criteria students' value and expect in online courses to ensure that these courses provide students the opportunity to fulfill their responsibilities to academic learning. This research examines students' satisfaction of online learning to explore what tools and practices faculty can use to ensure quality learning and increase and cultivate student retention, success rate and also satisfaction in online courses on the freshman and sophomore levels.

1.2 Research Objectives

The objectives of this research are to examine the effect of online learning and student satisfaction, and what the students need to do to ensure the development of the knowledge and to defuse knowledge to others in the students. More specifically the research objectives of the study are:

1. To investigate affect of perceive ease of use of online learning and students satisfaction.
2. To analyze perceive usefulness of online learning and students satisfaction.
3. To explore the relationship between web page quality and students satisfaction.
4. To examine the relationship between online notes and student satisfaction.

1.3 Research Questions

The objective of this study is to investigate the impact of online learning and student satisfaction. The following research questions will provide for this study.

1. What is the relationship between of perceive ease of use of online learning and students satisfaction?
2. What is the relationship between usefulness and student satisfaction in online learning?
3. What is the relationship between web page quality and student satisfaction?
4. What is the relationship between notes available online and students satisfaction?

1.4 Significance of the study

1. This study will help students to know the factors that affect students' satisfaction. It will help to improve the quality of the instructional process in students training colleges and will assist students to know the factors that dissatisfy them.
2. In addition it will improve the quality of the notes that is provided by instructor in secondary school.
3. Moreover this study will help the students to improve their technological knowledge.
4. Teachers training college administrators will be able to identify if website quality is reliable. Besides that it will help students to improve overall satisfaction and performance as well.

Students in Uzbekistan will be benefited from knowing what practices and tools students perceive as most beneficial to use to offer an excellent opportunity for students to learn in an online environment. Students will benefit by having a learning environment in

which they can be more concerned about learning the academic content instead of trying to master technology and interpret faculty's instructions.

1.5 Limitation of the study

There are a number of limitations of the study.

- First, the study only encompassed secondary students in high school.
- Second, the study is focused on students in high school in the region of Navoi only.
- Third, the study is based on the technology acceptance model.

1.6 Operational Definition

The **Technology Acceptance Model** (TAM) is an information systems theory that examine how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it.

Perceived usefulness (PU) - This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance".

Perceived ease-of-use (PEOU) - Davis (1989) defined this as "the degree to which a person believes that using a particular system would be free from effort".

Web page quality- determination of the page layout, user friendliness, ease of access, graphical presentation, navigation or flow information required by a user.

Online notes- these are resources which a user can have access to which will be provided as reference materials when accessing academic information made available through the college portal.

Student satisfaction- this is the perspective that one has when interacting with the system as well as the feelings toward use of the particular webpage based on a student's needs or wants to the required information.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discusses the literature on online learning in ten sections as follows:

1 Online education

2 Online learning

3 Technology's influences on higher education

4 Evolving social and economic perceptions of higher education

5 Transformations in the student market

6 Faculty's influence on students' perceptions of online courses

7 Administration's responsibility to academics

8 Perceive usefulness

9 Perceive ease of use

10 Summary of literature review

2.1 Online Education

The evaluation of the student of the effectiveness of teaching (SETE) is a primary method to define and measure teaching quality, and much of established instruments exist in educational psychology. In a general way, an evaluation of the students of educational quality (SEEQ) presents a complete definition and a measurement of quality of teaching and has eight factors. Curiously, the report/ratio of quality-satisfaction is seldom examined explicitly. A reason is that the two concepts are employed often synonymous (Abrami et. al. 1990).

Education on line becomes more attractive like the students carry out than suitability, the saving, and the occasions that this form of the delivery of instruction gives. It helps to reduce or to eliminate permute the days and the disturbance of the time constraints because the students can reach the courses of an environment of asynchronous study. The asynchronous environment of study opens windows of the occasions of study when it is most convenient that the students learn. Education on line gives to the students today more choice of the educational resources; therefore, such students became more selective and played of greater roles in their educational choices (Gonzales & Leo, 2005).

The problems of study Web-based were the questions connected and included technology of the access, connection, knowledge of Internet, and misses independent study (Chin, K.L., 1999). While technology advanced, the problems shifted side towards students. They felt insulation and emotive. "Students are still working to come to grips with a new and difficult way of learning. They exemplify the concern by asking for more incentive, more time, more structure, and more guidance." (Hedberg, J., Harper, B., & Corrent-Agostinho, S., 1998).

The instruction above the Internet is perceived while being much a significant opening in teaching and learning (Debourgh, A.G., 1998). The technology of Internet facilitates the exchange of information and expertise and present on the means of the students in remote and handicapped places (Webster, J., and Hackly, P., 1997). The Internet makes it possible studentss to provide to students the new ones and innovating virtual environments in order to try to stimulate and increase their learning (brown, I.J.T., 2002). Moreover, technologies of Internet or Web are important because they support the handling of information, facilitate/increase communications among instructors and students and provide tools to encourage the creativity and the initiative (Conlon, T., 1997).

Technology constantly changes in the companies of the world in the manners the people of phase, work, play, and learns. Technology particularly leads education instead of the requirement of education what is taught, in the technical curriculums (Cash, 20080). Even though distance learning had an annual growth rate of 9.7% in 2006 compared to the overall growth rate of 1.5% in higher education, most colleges of USA are still reluctant to embrace technology as a means of delivering course content in much the same manner as machines were resisted during the industrial era (Allen & Seaman, 2007. p. 1). Those educators who see benefits in technology-based instructional delivery are attracting student markets of all ages. Young students are attracted to technology delivery by their passion for technology (Colbert, 2007. p. 9). Older students are attracted to distance learning because of the accommodations of time and place constraints (Mendenhall, 2008. p. 12).

Course content delivery through online courses, also referred to as online learning and e-learning, is currently the most common form of distance learning in VCC's Business Division (Smith, 2008f). When the growth of this form of distance learning began to receive significant notice, students' retention and success rates were low and the quality of students who enrolled in online courses was questioned. An article in the Canadian Journal of Education indicated that although students' success and retention rates have been improving, they continue to be lower when compared to courses (Mykota & Duncan, 2007). Now, the issues being questioned in online education are the quality of online courses and students' learning experiences. Course design and instructional delivery are being studied as part of the ongoing research to improve these rates for students in online courses (Tallent-Runnels et al., 2006). The Alfred P. Sloane Foundation recently reported that "more than 60% of the nation's academic leaders rate online instruction to be 'as good or better' than traditional face-to-face offerings" (Ebersole, 2007. pp 3, 5). An important criterion that will contribute to the success of the online learning product is students' perceptions of this method of

learning and the benefits they believe they will gain in their personal, social, and professional lives.

Statistical data exist that illustrate the increase in the percentage of students enrolling in online learning. According to the Babson Survey Research Group's 2007 report, Online Nation: Five Years of Growth in Online Learning, online enrollment increased from 9.7% of total enrollment in postsecondary institutions granting degrees in fall 2002 to 19.8% in fall 2006 (Allen & Seaman. 2007, p. 5). The growth rate of online enrollments isn't expected to level off, but the growth rate is predicted to slow down because most institutions that include distance learning in their strategic plans have already entered the market. Even if the increase in online learning has reached a plateau, nearly one fifth of college students make up a significant percentage of the student market and, therefore, merit studies that support online students' selected learning mode (Allen & Seaman, 2006, p. 1).

Though the study of distance had a growth rate annual of 9.7% in 2006 compared with the total growth rate of 1.5% in more raised education, the majority of the universities of the United States are still little laid out to embrace technology bus of the means of providing the contents of course in more or less the same way that machines were resisted during the era industrial (Al and sailor, 2007. p. 1). These studentss who see advantages in the delivery of instruction technology-based attract markets of student of all the ages. Young students are attracted with the delivery of technology by their passion for technology (Colbert, 2007. p. 9). Older students are attracted being studied of distance because of the housing of time and place constraints (Mendenhall, 2008. p. 12).

2.2 Online Learning

In the literature, the explanation of the study online was various terminologies used. For this reason, marks it difficult to develop an extensional definition. The limits which are generally used include E-study, the learning Internet, the distributed study, the study managed in network, the TV--study, the virtual study, computer-assisted learning, the study based by Web, and educational television (Anderson and Elloumi, 2004). In the literature, there are many definitions which are reflecting the diversity of the practice and technologies associated on line with the study. For example, whereas some researchers define online study as an educational material which is presented on a computer, the others defines the instruction on line like approaches innovating to provide the instruction to a remote assistance, by using the Web like medium (Anderson and Elloumi, 2004).

However, today's definition for online learning not involves just the presentation and delivery of the materials using the Web, also it involves the learner who use the Internet to access learning material, interacts with the content, instructor and other learners. In addition it involves the learning process which should be obtained support for the learner in order to acquire and construct knowledge and to grow from the learning experience (Anderson & Elloumi, 2004).

Briefly, we say that online learning can be defined as an approach to learning and teaching process that utilizes acquisition and usage of the knowledge in an educational context by using primarily Internet and communication technologies in collaboration.

There is different classification of online learning in the literature. Negash and Marelene (2008) make most comprehensive classifications of online learning according to presence and communication properties. It is defined as real-time presence where both the instructor and learner are present at the time of learning content delivery. In addition,

physical and virtual presence terms are included by them. The other is communication, that is defined as the content delivery include whether electronic communication or not.

According to these classifications of online learning, online learning can be face-to face. An example of face-to-face online learning is a traditional class that utilizes PowerPoint slides, video clips, and multimedia to deliver content. Online learning can be designed for a self-learning approach. This type online learning is an example of hypermedia based learning. Learners receive the content media and learn on their own. It is content delivered on a specific subject or application using recorded media like a CD ROM, DVD or web based courses. Online learning can be in the asynchronous format. The communication between the instructor and the learner is occurred in the asynchronous format, especially over the internet. In this format, the instructor and learner do not meet at the time of content delivery. But, rich interaction is occurred by using e-learning technologies like threaded discussion boards and e-mail and instructors may post lecture notes for online access and schedule assignments online. Typical example of this type online learning environment is the Learning Management Systems. Online learning can be in synchronous format. In this format, the instructor and learner do not meet physically; however, they always meet virtually during content delivery. Typical example of this type online learning environment is the Video conferencing. Lastly, online learning can be blended or hybrid online learning format. This is a combination of face-to-face and asynchronous online learning.

2.3 Technology's Influences on Higher Education

The technology in one more a higher education surrounds more than just in line the study. The students of the university are necessary to have with provided qualifications of the technology to reach the administrative processes and tasks in the line of academic. The services of the student, administrative processes, and the tasks by all means move towards the

company without the paper. Much course has a presence of the Web so that the students reach games and tests and after the subject the written tasks that they require students to have qualifications of the technology (Pope, 2006). Most of the students who has lack with of provided technical qualifications perceive the difficulty with technology like the barrier that is studied. When the students with provided technical qualifications choose to fall under courses of the study of the distance, they do not hope to be defined by the level of the required technology to reach tasks. The technology must be the captivating force in no course; instead of that, it must be a vehicle to increase the study. The courses in line are due to conceive around the necessities of the students and the results of the study wished instead of the efforts of using the past technology to provide the information by all means. If the students are necessary to by all means have access to the connections in the speed of the Internet to the materials of the access, the students who do not have such access will have the opinion that the study of the distance is beyond its detent (Palloff and Pratt, 2007. p. 96). The reserved students find the environment of study virtual, possible by the use of technology, a more comfortable kingdom to take part in than the environment of classroom (Mendenhall, 2008. p. 12). In asynchronous tasks of discussion, the students have the occasion to examine their work before presenting it at their pars. They have the occasion to undertake research on matters and to create the comments which support their points of view; thus, establishing their confidence as successful students. According to Coombs-Richardson (2007), much of such reserved students excelled in courses on line while they would not take part in a traditional discussion of classroom. Older students, after study how to employ requested technology, found their experiments of study to be more productive. During discussions of end-of-six-month period of the reflection of the courses on line, the students declare that the advantages of the courses on line are their step duty to accept the clown of class or about younger students trying to waste time and not having to listen to instructors

about the matters connected courses speak. The time when the student devotes to the study is time of quality. These students who are very motivated and interested by the contents of study of course have positive perceptions of the use of study of distance from technology to provide the contents of course (Beavers, 2007).

The instructors should have at least qualified qualifications in all the technology which they choose to employ in their courses. When the students discover that the instructor does not know about the technology used in the format on line of the delivery, they perceive the university and all implied in the study of distance to be unsatisfactory. They perceive the university like being interested to make only the money and noninterest by the quality of education or the quality of the students of study should have (Tilson, 2003. p. 97).

The technology makes level the field that learns allowing the individualized instruction. It allows those students to that "... it comes to the education with diverse levels of the knowledge, and learns in diverse tariffs" to fit its hour that learns to accommodate more better possible his to learn needs (Mendenhall, 2008. p. 12). The "computers do not discriminate" are a fact that animates to students "contracts more with ideas than with personal characteristics" (P. 12). They give each student, without concerning personal responsibilities of the disposition and the work and the family, the same opportunities to participate in activities and allocations of the course without the threat of the interruption or the fear of the intimidation by other students who tend to dominate discussions in classes. Most of the final courses in line they are not celebrated to the time schedule whereas they are in the classes and the students are not "... forced supply expensive to face so that an opportunity speaks" (Tallent-Runnels and others., 2006). In line learning "... offers he himself training equipment to each student every time" and as often as it has needed (Mansour and Mupinga, 2007). The students can have access to the courses in line as often as they wish to accommodate the more better possible his opportunities than they learn. This

allows that the students create enthusiastic dialogue because all the students have the same opportunity to respond to each participant.

One of the most harmful devices on line of the study is problems with questions of compatibility of software. The contents of course should be the center of the experiment of study. The students should not have to spend the hours trying to learn how to achieve or subject tasks. Courses on line created in the software of system of management of course are easily directed for students and instructors. The problems emerge when the other software such as the program classifies, examine and question the software and the software of evaluation or evaluation are integrated in the software of the system of management of course. While technology advances, slow connections of Internet receive less consideration of volume of file and time of remote loading. When the students perceive technology as more than a one obstacle that a vehicle to support the study, they become discouraged with the training. A bad experiment with technology in a course on line can in permanent way direct students far from the study of distance (Tilson, 2003. p. 97). If on line the study is the only option for the students who have the family ahead and work of the responsibilities, these students will fight to reach and maintain the status social that education offers.

2.4 Evolving Social and Economic Perceptions of Higher Education

Study of distance in the United States come from 1881 with the university of correspondence of Chautauqua. The University of Chicago launches the study of distance in the system United States of university in 1892 by establishing a division of prolongation. In addition to the courses by correspondence, the radio and television were employed to provide the contents of course. The soldiers and house-study schools contributed to the slow growth of the study of distance throughout the twentieth century. Although other countries have in the whole world summer more aggressive by providing education by means of television, of

the satellite, and the Internet, the study of distance is remained marginalized in the United States until the turning of the 21st century (Heeger, 2007. p. 5). Not only technology it became more sophisticated during the emergence of the new century, but its sophistication also brought changes of the companies, policies of government, and requests of the consumer of the solutions of replacement of education.

The 20th century opened with the industrial age and was transformed into the age of information around the preceding part of the Seventies. An age of new knowledge emerged with the closing of the century last and continuous to being a significant mark of social status and economic support in this century of current (Tilson, 2003. p. 12). The force of this resource of knowledge "... depends mainly on the people which have it" (brown and Duguid, 2000). People who have the knowledge and of the qualifications are less dépensables in the company and the world of work which the workmen who have only of the qualifications. The easy accessibility of information contributed to the explosion of knowledge. Technology now made it possible to accumulate "more knowledge in one year than the preceding generations accumulated in a life" (Ebersole, 2007. p. 1). This phenomenon decreases the shelf life of knowledge, so returning continues learning a need. The study of distance is a manner of achieving this need for the students who cannot "suspend their lives of operation for the study" (Muller, 2008. p. 11).

The company and the environments of the world of work support the ascending value of the degrees in a higher education. "An education of university is a need to carry out and maintain a life style of class means" (Heeger, 2007. p. 11). The true threat for companies of the United States is not more geographical insulation as it took place in the past; the true threat "is exclusion of the safety of the middle-class" (P. 11). The middle-class composes 44% of the population United States with 27% of this social class being in the upper middle class. Education is regarded as a procurable criterion by those which want it; therefore, more

the social class is high, more education is with its more important members (Kotler and Armstrong, 2008. p. 134). The asynchronous education of distance provides means for the middle-class of obtaining this valid criterion without compromising responsibilities for professional experience or family.

The passage of use of the industrial era at the era of knowledge brings work and the careers which require complex qualifications and sophisticated qualifications. Seventy-five percent of lack of labour of the adult of America higher degrees required to fill information and work of services which will lead 90% of the future economic growth of the country. This insufficiency of knowledge threatens with the economic growth and social of the United States the geographical borders become less ahead because the information and of the services can be provided without workman being present in the physical environment receiving knowledge (Ebersole, 2007. p. 3). On line the study "is an example in the way in which the process to learn itself can be adapted to the gathering the educational requests of the economy of knowledge" (P. 1). With the availability of the courses and programs of study of distance, the time and the constraints of place are the remote less significant barriers to obtain conventional teaching just as the case one decade ago. Consequently, the courses of study of distance must be of quality equal to the traditional courses with being of equal value in the company and industry. An outline of 151 frameworks of study in 2005 indicated that more than 62% employers supported the instruction on line and almost 60% "expected that the role of higher education on line increases in their organizations into two or three years to come" (Hartmann, 2007. p. 1). The study of distance attracts students of quality and the employers identify the features of the students on line succeeded. By achieving programs real

time, the students showed "maturity, the initiative, the self-discipline and the strong orientation of goal" (Mendenhall, 2008. p. 13).

The study of distance offers to students the advantages "of controlling a new subject, of being able to make thus around the program of the student, and of lying almost anywhere in the world all while doing it" (Sull, 2007. p. 12). The courses of study of distance have the potential to teach other valid techniques of support of the social adaptations such as the writing, collaboration, the management of time, the individual-motivation, the organization, technology savvy, and the network management which will be useful for the personal and professional life of the student. The instructors of the courses of study of distance should identify the occasion to support and integrate these qualifications in the configuration, the activities, and the tasks of the course (pp. 12-13). The students should identify the nature of refining of the courses of study of distance and employ these occasions to increase the development of these qualifications. The courses on line also allow students and instructors freedom to project their program of study or teaching around other personal liabilities, social, and of employment (P. 14). Engagements of study should not student lives disturb les' at the point to leave them go from these facets of their lives which provide the social growth or which contribute in support of their life styles. The students who choose the study on line must realize of their priorities. One of the advantages on line of the study is that family of maintenance and the responsibilities for work and engagements social can remain priorities while the training is integrated without strict constraints of time and place life styles in students.

2.5 Transformations in the Student Market

Perceptions of students les' of a higher education on the level of university of the community strictly changed courses carried out by body teaching into an environment of study friendlier due to sophisticated technology and physical borders of disparaition of the universities. Technology appreciably influenced education for what is taught and the way in which it taught. "A higher education faces an increasing hope to provide life styles changing to students of services, contents and media" in the formats which are compatibles' (the report/ratio of horizon, 2008. p. 5). Technology became increasingly sophisticated during the appearance of the 21st century, and its sophistication brought changes in requests of the consumer of the educational solutions of replacement into the traditional method of delivery of instruction. Technology added a new dimension to the broad definition of the study of distance what is "... a process in which teaching exceeds the geography" (Heeger, 2007. p. 5). Sloan that the consortium "learn any time, anywhere" slogan is a common concept in a higher education which took on a very suitable significance by the use of the Web by providing the information of instruction of course to the students. Ninety percent of "... the American teenagers are the qualified users of Internet" which is envisaged because the 2002 that no child left the Law required "that each child is technologically informed by the eighth category" (Colbert, 2007. p. 9). The changes of the educational environment and were continued to be launched passion by étudiants' for technology. Now, just as the study must be continuous, of the changes of the teaching of academic must be continuous news manners to adapt 21st century to students des' of the study. The results in the report/ratio of research of Sloan-C 2006 indicated that there is agreement spread among the various establishments which "education on line provides a level of the access" to the students who would not follow differently of the classes (Mendenhall, 2006. p. 10).

An important challenge brought above with the use of technology in education is hopes of students des' of the availability of the occasions of study. These occasions should not be available to adapt only to the instructor of the course but should be available to adapt to all the participants of the environment of study. Since students are regarded as the principal participants of more raised education, considerations for their responsibilities for family and employment are strongly encouraged particularly on the level of university of the community. Another challenge presented responsibilities while adapting to students des' is the insurance which the courses on line are, at the very least, of quality equal to the traditional courses of the aspects naturally contained and delivery of contents.

The offers in line of course in a higher education started to cause the significant attention around the beginning of the 21st century; thus, the use of the Web to provide the didactic material in the form of course on line "is always relatively new" in a higher education (Hartmann, 2007. p. 13). However, this form of the delivery of instruction had the notable growth in 4 last years.

Compared with the inscription on line of fall 2002 at the universities of community, the inscription on line of the fall 2006 had an increase of 24% (conjecture, 2007). Research detailed constantly is undertaken to determine the effects and the courses in line of effectiveness have on students and the universities which they occupy. This innovating delivery of product must answer the hopes of the students, the communities, and industry before it can be a product successful for higher educational establishments. The students must identify the advantages of the courses on line and to have positive perceptions of this delivery of instruction of method naturally so it with being succeeded.

Existing perceptions of a higher education can be defied, because the idea of the real establishments devoted to education is not arrangement for their classrooms. Generally, their classrooms are their houses and changes of this arrangement the culture of education. The

real time that the students of study of distance pass on the active study is generally longer than students of devote to the same thing charge. The courses on line require typically more reading and of writing that the comparable courses and the students on line tend to make more research to validate their correspondence written before announcing information in courses on line. Students of distance must be disciplined enough "follow" of the courses on line without recognition of the member of teaching body knowing exactly when the students are present. On a positive note, the students can look like pioneers in "the transformation of a higher education itself" (Heeger, 2007. p. 11).

The market of online learners continues to increase as demands of lifelong learning become apparently necessary in many professions and careers. More than 96% of the colleges and universities in the U.S. are meeting these demands by offering online courses. In the fall of 2006, approximately 3.5 million students enrolled in online courses (Allen & Seaman, 2007. p. 1). Institutions of higher education recognized online courses as an opportunity to reach new markets of students by greatly reducing the time and place constraints and by offering the convenience of students learning course information in their own homes. The ever increasing number of totally online programs is allowing students the option of completing degrees through colleges that would not be feasible otherwise. Students are no longer bound to local or residential colleges. They have the option of selecting "an education provider based on the satisfaction of ... individual learning needs" (Tilson, 2003. p. 2). The reduction of time and geographical controls increases competition among colleges, thus, making students' perceptions of the quality, conveniences, and benefits of online courses more important to individual colleges that seek participation in the online student market. The fall 2006 Sloan Foundation survey "found that most growth was expected at institutions that are the most 'engaged'...and believe that online is critical to the long-term strategy of their organization" (Guess, 2007). Even in online courses, students expect the presence of the

instructor of the courses to be perceptible by the instructor engaging in the class discussions, giving acknowledgement of assignments received, and posting grades in a timely fashion.

Courses on line are not differentiated from the traditional courses transcriptions on students des'; therefore, the perception of the courses on line should be comparable with that of the traditional courses. The members of teaching body should naturally employ the greatest quality of consideration and the students of support in the delivery in line of course right as they make while putting pursuant to the traditional courses. Perceptions of student's les' their experiments of study of the courses on line should be positive and rewarding. There are motionless students that shy person far from the study of distance drives out because this form of the delivery of instruction is new. The careful students will take a course on line to determine their perceptions of this type of instruction. If the students have bad experiences with the first course in line which they take, the chances to take to them another course of this same format is strongly not very probable. An abundance of studies during 5 years compared aspects of instruction of the delivery with those of the courses on line. The studies indicate that although students learned well in the two types of delivery from instruction, the students on line "... less are satisfied of the experiment of study" (Mentzer, Cryan, and Teclehaimanot, 2007).

The online courses of the student are more attractive to the nontraditional students than with the traditional students. The nontraditional population of student is identified as a behavior of the students who are 24 years and surplus, adults working, in particular parents, military personnel of overseas, and students with the limited financial resources which must maintain the full employment while gaining the academic credit in an educational establishment higher (Ebersole, 2007, P. 3). The professionals can also refuse the occasion to follow traditional courses of campus and to act one on the other in the environment of campus however to have the need or to wish to reach the formal qualifications of study. On

line the study "helps to establish the bond between work and the school" which attracts these students "traditionally given on by formal higher education" (Larreamendy-Joerns and Leinhardt, 2006). These nontraditional students want the relevance, the practical character, and quality learning in the courses from university that they take. One their educational goals is to gain knowledge and the qualifications which will be applicable to their use and of support of promotions and the ascending switches of career. They seek the signicative study by the process of new information of convergence with the preceding structures of knowledge as well as to gain higher educational degrees (Lofstrom and Nevgi, 2007). The employers identify that the students on line succeeded have characteristics of "maturity, initiative, self-discipline and strong orientation of goal" (Mendenhall, 2008. p. 12).

Brown and Kulikowich studied in 2004, comparative course studies indicated no significant differences in students' success rates in online courses with graduate students. However, in two earlier studies, one in 2000 by Faux and Black-Hughes with 33 student participants and another in 2002 by Brown and Liedholm with 710 students, the results showed undergraduate students' success rate to be lower in online courses (Tallent-Runnels et al., 2006). Because graduate students are considered to be more dedicated to self-improvement, these studies support the characteristics of successful online students that employers recognize. Successful online students demonstrate more involvement than just receiving information by passively listening to the instructor deliver course information. They actively participate in their learning process through reading, analyzing, and engaging in the "mindful processing of information" and acknowledging "their responsibility for learning" (Lofstrom & Nevgi, 2007). Online courses are perceived as the bridge to understanding education in reference to the student's own experiences and needs (Ebersol, 2007. p. 3). The faculty who teach online courses should be aware that these students expect a feasible and scholarly learning environment that can be flexible enough to accommodate other priorities

and responsibilities in the student's life (Mupinga, Nora, & Yaw, 2006). Faculty should recognize and respect the expertise these nontraditional students bring to the learning environment.

2.6 Faculty's Influence on Students' Perceptions of Online Courses

Faculty members play a strong role in influencing students' perceptions of online courses. "Just as there is good and bad classroom instruction, there is good and bad distance learning" (Mendenhall, 2008. p. 12). Academic evaluations have the same values and results in online courses; therefore, students expect online faculty to be as attentive to online students. Students' expectations of faculty's responsibilities in online courses differ little from other course expectations. Online students expect "regular and prompt communication with professors, prompt feedback on assignments, clear expectations of the professors, and academic rigor" (Mupinga et al., 2006). Technology can be used to enhance learning; however, it's still the instructor's responsible to teach the course information. An engaged faculty member is one of the strongest factors for supporting retention in almost all learning environments (McClure, 2007). Because online students and faculty don't meet regular online contacts with students can create strong faculty and student relationships and help students feel comfortable about participating in the social aspects of online courses such as discussion board topics and team or group activities. Contacts can be in the forms of feedback on assignments, announcements, informative email messages, and scheduled times for phone and in-person conversations and discussions. The "distant, not absent" concept of online courses is applicable to both faculty members and students of distance education (McClure, 2007).

Online learning is just as new to faculty as it is to students. Faculty members are encouraged to teach in a world very different from the one they learned in when they attended institutions of higher education. Some faculty members are reluctant to accept the responsibilities of online instructional delivery simply because they don't understand how this type of instructional delivery can offer a strong learning environment. They feel that taking the synchronous vocal lecture out of the course is taking out the opportunity for students to learn. The absence of learning environments removes the ability for the instructor to gage the attentiveness of the students. They teach with the existing assumption that all students come to the arena with the same learning styles. They're missing the vast knowledge students with professional work experience and parental obligations can bring to a course. These instructors may not know what criteria to use to ensure the greatest learning potential for students from vast backgrounds. Some faculty also question the infringement online courses have on academic freedom. They are resistant to online peer and supervisory reviews. It's possible that these faculty members shy away from online course delivery because such good records are kept of all times and dates of any course activity performed by students and faculty in the course site. The absence of such records indicates no activity. In this situation, faculty may feel that administration is using the monitoring of instructor activity in online courses as a means to control faculty's interaction with students.

Faculty's acceptance of teaching online courses depends on some of the same factors that influence students' decisions about taking online courses. Technology problems are more frustrating to instructors of online courses because they are responsible for presenting the course information. Instructors are ultimately responsible for the quality of the courses they teach. If they have to depend on weak tech support, their perception of online courses will be negative, therefore, influencing students to have a negative perception as well. Training in delivering online courses will alleviate some of the instructors' frustration by teaching

different methods of achieving desired outcomes and using different tools to help students accomplish these outcomes. To develop a student's perspective on participating in distance learning, instructors should enroll in and complete all assignments required in online courses. These courses can be credit or noncredit courses.

Faculty members who implement online courses are representatives of an innovative product and should strive to make the product as attractive as possible. College administrators should ensure those faculties who implement online courses have a positive and supportive attitude of distance education and have the ability to help students develop positive perceptions of online education. Surveys of students' perceptions of individual online courses should be reviewed carefully by administrators and faculty members and measures taken to address negative remarks if similar perceptions are shared by a large percentage of students.

Online students are more flexible to changing schools than traditional students are and online students expect to be accommodated for their flexibility of selecting the college that will be most supportive of their learning endeavors. Currently, to effectively implement an online course requires more time and effort on the part of the instructor than it does to teach a traditional course with comparable course content, requirements, and participation (Allen & Seaman, 2006. p. 12). A study conducted by Mupinga et al. (2006) revealed that the three top expectations of "online students were communication with the professor, instructor feedback, and challenging online courses" (p. 187). Online instructors can expect more one-on-one communication via e-mail and phone calls with online students as compared to class students. Online instructors also need to be visible through active and frequent participation in their online courses. If students perceive that the instructor isn't participating in the course, they also become less concerned about the instructor's role in the student-learning experience (Savery, 2005). A passive online instructor encourages online students to become passive learners or, even worse, nonparticipants in the course that results in low student retention and

success rates. The nonparticipating instructor is more common in courses created by publishing companies, commonly known as canned courses, than in courses created and developed by the instructor. Although canned courses are not favored by students, this type of implementation has provided a means of delivery of online courses and is often used by faculty who prefers to teach courses but is required to teach online courses. Implementing canned courses requires much less course development time and course content knowledge of the instructor and does not support instructor and student interaction or encourage the instructor to establish a participant role in the course. If faculty members are reluctant to teach online courses, it is the responsibility of college administrators to see that the most effective and efficient methods of delivering the course content online are available to support instructors' implementation and students' learning.

2.7 Administration's Responsibility to Academics

Administrators recognize online learning as a means to expand the boundaries of their colleges and service a larger share of the student market. They accept the concept of online learning as a means to increase credits per student that the government uses as a basis for granting educational funding to colleges. Most administrators have not been directly involved in online learning either as a student or an instructor so their understanding of online learning is through the perceptions of students and instructors. Administrators on all levels of VCC have expressed the preference of offering courses over online courses (Loretta Roberts Beavers, 2009). Top administrators view online courses as a threat to the quality of higher education. However, these reactions are common "whenever pedagogical innovations challenge the classroom as the privileged scenario for learning and instruction, and the students as ultimate source of knowledge and control" (Larreamendy-Joerns & Leinhardt, 2006). Both instructors and administrators should recognize that online courses have a

prominent role in higher education and that innovative teaching is needed to accommodate online learning. Just as technology's integration is increasing in society, its integration is also increasing in education. Following the same century-old practices that have presented education to students isn't delivering the quality of academics necessary to support the value society has expressed upon education. Students' perceptions of the quality of online courses should be equal to their perceptions of all college courses. These perceptions can be best supported if they are initiated by administrators and shared by instructors as well.

The quality of online courses depends largely on the quality of the instructors of the courses. The role of online instructors is different from those instructors. In addition to knowing the course contents, online instructors have to be technological proficient and be available for student contacts beyond the normal course and office hours. Online instructors have to also be prepared to teach a course that may include students who are professionals in the content area. For example, an online management course may have seasoned managers enrolled as students who need educational credentials. These exceptional students' perceptions of the instructor and course content will determine the value these students have of the college's academic quality. This will inherently affect the perceptions industry will have of the graduates of the college. Online courses are the most likely to be outsourced to adjunct faculty and professionals in the field of study. Even though adjunct instructors may possess the subject knowledge, they may lack teaching skills. The responsibilities of delivering quality instruction aren't always a primary consideration of adjunct instructors because the teaching position isn't the main source of income (Lei, 2007). Teaching is a profession in itself and the responsibilities of delivering quality instruction should be viewed as a representation of higher education. Therefore, administrators should make every effort to ensure that each instructor of all courses is qualified in both subject knowledge and teaching

skills and has the desire to implement academic instructions in the best possible format and upholding the utmost quality of education.

Administrators have to be supportive of teaching and andragogical practices in order for the practices to be comfortably accepted by faculty. A 2007 Sloan Consortium research found that only about one third of the academic leaders surveyed believed the faculty of their schools "accept the value and legitimacy of online education" (Allen & Seaman, 2007. p. 18). This same research reported that of the 4,365 institutions participating in the study, only 1,539, approximately one third, were fully engaged in promoting distance learning (p. 11). This indicates that nearly two thirds of the academic leaders don't fully support online learning. Until a majority of academic leaders strongly support online learning, faculty will be reluctant to accept it as a quality alternative to learning. The instructor's positive relationship with students in learning environments promotes academic learning; therefore, unless the instructor fully accepts online learning as an equal quality alternative to learning, students' perceptions of online learning will be inferior to the perceptions they have of courses learning environments. Students are the initiating source for online learning. They have perceptions of what they think an online course should encompass. Those students who don't have such perceptions tend to avoid distance learning courses. Administrators have to be very vigilant in their selection of online instructors. The selected instructors should possess the ability and desire to fulfill students' learning expectations and they also need to be very supportive of academic learning.

Administrators are also responsible for the whole college's support for all education. Because online student enrollment makes up approximately one fifth of the student market (Allen & Seaman, 2007. p. 5), administrators should ensure that online instructors have administrative, technical, and staff support in implementing online courses. "Few faculty have had formal education or training in instructional design or learning theory" (Oblinger &

Hankins, 2006). The effectiveness of distance education depends on the support of all stakeholders. Faculty, students, staff, and administrators need to accept distance education "as a practical and effective instructional method" in order for it to be considered "a successful method of delivering education" (Bower & Hardy, 2004). Online courses require more time and effort to develop and implement (Mendenhall, 2008. p. 13); therefore, online faculty members should be granted ownership of effective and efficient productive courses until they give them up voluntarily. Ownership of courses will elicit positive perceptions of teaching online and will foster students' positive perceptions of the online course.

Someone has to be held accountable for the quality of courses in higher education whether these are traditional courses or online courses. Students perceive the instructor to be accountable for the quality of learning available in all courses. Administrators have to realize the permanence of the tangible online courses as opposed to the intangible practices lecture courses. Course instructions and students' work are recorded in the online learning environment and can be viewed by anyone who has access to such information. Faculty and students should be aware of this tangible element in online learning. Students' perceptions of online courses should not be studied in the same context as students' perceptions courses because most accusations concerning online learning practices can be proved or disproved in online courses presented in course management systems. The tangibility of online learning can easily separate facts from fiction for both faculty and students.

Change in administrative support is slow in coming where there are academic or curricula paradigm shifts. Administrators can show support to faculty who teach online courses by acknowledging the fact that theories that serve as guidelines in implementing online courses have yet to be well established. In this innovative method of academic learning, all stakeholders are starting at ground zero and learning its characteristics and responsibilities as the measurements of epistemology unfold. Given the fact that a negative

first experience with distance learning can deter a student from other distance learning opportunities indefinitely, greater support on all levels will better cultivate the success of online learning.

2.8 Perceive usefulness

Perceived usefulness is defined as the degree to which a person believes that using a particular technology will enhance his or her job performance. People tend to use or not to use an application to the extent they believe it will help them perform their job better - (Davis et al.,1989). Phillips and colleagues defined perceived usefulness as; the prospective adopter's subjective probability that applying the new technology from foreign sources will be beneficial to his personal and/or the adopting company's well-being". (Phillips et al., 1994, p. 18). Perceived usefulness explains the user's perception to the extent that the technology will improve the user's workplace performance (Davis et al. 1989). This means the user has a perception of how useful the technology is in performing his job tasks. This includes decreasing the time for doing the job, more efficiency and accuracy.

2.9 Perceive ease of use

This refers to the degree to which a person believes that using a particular technology will be free of effort. Users believe that a given application is useful, but they may, at the same time, believe that the technology is too hard to use and that the performance benefits of usage are outweighed by the effort of using the application (Davis and Arbor, 1989). Phillips and his colleagues defined perceived ease of use as 'the degree to which the prospective adopter expects the new technology adopted from a foreign company to be free of effort regarding its transfer and utilization'. (Phillips et al., 1994, p.18). Perceived ease of use explains the user's perception of the amount of effort required to utilize the system or the

extent to which a user believes that using a particular technology will be effortless. (Davis et al., 1989).

The theoretical importance of perceived usefulness and perceived ease of use as determinants of user behaviour is indicated by several diverse lines of research. The impact of perceived usefulness on technology utilization was suggested by the work of Schultz and Slevin (1975) and Robey (1979), cited by (Davis and Arbor, 1989). Davis (1989) conducted numerous experiments to validate TAM by using perceived ease of use (PEOU) and perceived usefulness (PU) as two independent variables and system usage as the dependent variable. He found that PU was significantly correlated with both self-reported current usage and self-predicted future usage. PEOU was also significantly correlated with current usage and future usage. Overall, he found the PU had a significantly greater correlation with system usage than did PEOU. Further regression analysis suggested that PEOU might be an antecedent of PU rather than a direct determinant of system usage. That is, PEOU affects technology acceptance indirectly through PU. (Ma and Liu, 2004). The technology acceptance model proposes that perceived ease of use and perceived usefulness predict the acceptance of information technology (Ma and Liu, 2004).

2.10 Summary of Literature Review

The review of literature provides an overview of five major influencers on students' perceptions of online courses. These five influencers are technology, social and economic changes, changes in the student market, faculty's devotion to teaching and willingness to teach in various learning environments, and college administrators' support. Faculty and administrators put the responsibilities of student retention and success rates in online courses on the student. However, these responsibilities are shared between the student and instructor in traditional courses. Because administrators are more supportive courses as compared to

online courses, it's understandable why faculty aren't held responsible for low student retention and success rates in online courses. Approximately two thirds of colleges that participated in research studies funded by the Sloan Consortium indicated that they weren't full engaged in including distance learning in their future goals (Allen & Seaman, 2007. p. 11).

This study explores the perceptions students have on the practices faculty currently use in implementing online courses. A deeper understanding of students' perceptions of these practices will enable instructors to design online courses that promote academic learning. Instructors will also have the opportunity to learn what students know of the education system and the responsibilities of the instructors and administrators. Explanations can be offered the enhance students' understanding of the value of quality learning, correct communications, and adhering to the rules and guidelines set forth by the online instructor. This study should help instructors include online learning practices so students will also be able to make a stronger connection between education and the work world. They will realize the value of academic learning in a social context and the value of the opportunity to learn online without the major disruption to personal and employment responsibilities. Administrators rated the major barrier to their college's widespread adoption of online learning as students needing "more discipline in online courses" (Allen & Seaman, 2007. p. 21). When faculty and administrators place the same value of academic learning on online courses as they do on traditional courses, students will also perceive online courses and online instructors to be of equal quality.

CHAPTER THREE

METHODOLOGY

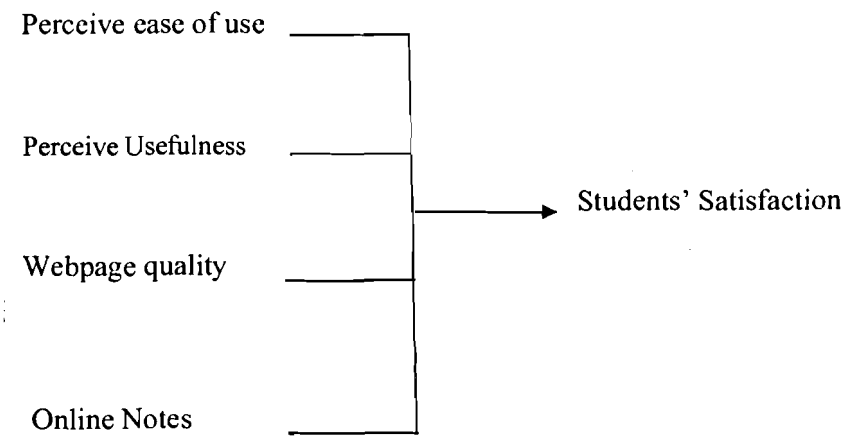
1.0 Introduction

This chapter discusses the research method employed in the study in four sections. Section one explains the research design used in the study and section two discusses the population and sampling method in the study. Next section three discusses the data collection technique. Finally section four discusses the various statistical method used in the study.

3.1 Research Design

This study is an attempt to investigate the relationship between perceive ease of use online learning and students' satisfaction. The relationship between the four variables and students' satisfaction are based on the perceive ease of use, perceive usefulness, webpage quality, online notes and the dependent variable students' satisfaction. The following figure shows the relation between the variables.

Figure: 3.1: Relationship between the variables



3.1.1 Hypothesis

1. There is a relationship between perceive ease of use and students' satisfaction in online learning.

2. There is a relationship between perceive usefulness and students' satisfaction in online learning.

3. There is a relationship between web page quality and students' satisfaction in online learning.

4. There is a relationship between students' satisfaction and online notes available in online learning and student satisfaction.

3.2 Population and Sampling Method

The population for this study consisted of students at the secondary level in Uzbekistan. It is estimated that there about 1 507 000 students at the age of 15-17 years old who are pursuing secondary education in Uzbekistan, 2010 years. The sample for this survey was drawn mainly from student and in Uzbekistan who are studying in secondary schools in the Tashkent division in Uzbekistan.

3.3 Data Collection Technique

Data in this study was collected through individual student assessment. The initial goal is to obtain seven hundred fifty candidates to participate in the study. Two (2) people have been appointed to facilitate data collection on questionnaire distributed to the respondents in Uzbekistan. To ensure the validity and reliability of the responses, the selected people who delivered the instrument will be informed on the proper administration of the

questionnaire. The data has given to the selected two people and they distributed the instrument among seven hundred fifty students in Uzbekistan. However from the 750 respondents only 488 respondents provided responses. The 488 respondent represent a response rate of 75 percent.

3.4 Data Analysis Technique

Statistical Package for the Social Science (SPSS) version 14.0 was used to analyze the data collected in this study. For data processing, four statistical techniques were used for different purposes. These included descriptive statistics, reliability test, correlation analysis and regression analysis.

3.4.1 Descriptive Statistics

Respondents' demographic variables (gender, age, marital status, monthly income) have been analyzed using descriptive statistics, such as frequencies and percentages. Items in the instruments that were measured based on 5-point Likert scale.

3.4.2 Correlation Analysis

To investigate whether all factors of independent and dependent variables were independent or inter-correlated; a Pearson correlation analysis will be conducted.

3.4.3 Reliability Test

The reliability test is conducted to ensure the consistency or stability of the items (Sekaran, 2000). The Cronbach alpha is a reliability coefficient. The Cronbach's alpha ( ) test was used to analyze the reliability of the instruments. According to Nunnally (1994), the reliability acceptance level should be around 0.70.

CHAPTER FOUR

ANALYSIS OF RESULTS AND FINDINGS

4.0 Introduction

This chapter presents and highlights the analysis of results and findings of the study in three sections. Section one shows the profile of the responded, section two highlights the average score of the online learning variables and finally the third section present the results of the correlation analysis.

4.1 Profile Respondents

This shows the frequency distribution and percentage of gender, age, and marital status of the respondents to the questionnaires.

4.1.1 Respondent According to Gender

Of the 488 respondents in this research 393 or 80.5% were female and 95 or 19.5% were male. Looking into this it shows that there were 298 more women that responded than men which can also be a concluding factor that colleges in Uzbekistan have a large number of female as compared to male that are studying in the colleges.

Table 4.1: Frequency Distribution of Gender

Gender	Frequency	Percent
Female	393	80.5
Male	95	19.5
Total	488	100.0

4.1.2 Respondent's Age

The respondent's age was between 11 years and 21 years which is the age groups of pupils that are in colleges, in Uzbekistan that were send questionnaires. The respondent that were 11 years old were 4.9%, 12 years were 3.7%, 13 years old were 10.2%, 14 years old were 8%, 15 years 12.9%, 16 years 18%, 17 years were 21.3% which was the largest number of respondents in the survey, 18 year were 11.5%, 19 years were 7.4%, 20 years were 0.4%, and 21 were 1.2%. The following table below shows the data that as just been mentioned above.

Table 4.2: Respondent Frequency According to Age

Age	Frequency	Percent
11	24	4.9
12	18	3.7
13	50	10.2
14	39	8.0
15	63	12.9
16	90	18.4
17	104	21.3
18	56	11.5
19	36	7.4
20	2	.4
21	6	1.2
Total	**488**	**100.0**

4.1.3 Respondents According to Marital Status

436 among the respondents were categorized into Single and 52 categories were monopolized by being married. The table below shows the number of respondents.

Table 4.3: Respondent Frequency According to Marital Status

	Frequency	Percent
Married	52	10.7
Single	436	89.3
Total	488	100.0

4.2 Descriptive Analysis

Descriptive analysis is the transformation that shows raw data can be changed into a form that is easy to understand and interpret (Zikmund, 2000). Mean measures the central tendency that offers an overall picture of the data without unnecessarily inundating one with each of the observations in a data set (Sekaran, 2000). Mean and standard deviation were used to describe the statistics in this study. All variables were measured using a 5 point Likert scale with 5 being strongly agree and 1 being strongly disagree, followed by 5 being not good and 1 being very good.

4.2.1 Students' satisfaction

This measured the minimum, maximum, mean, and standard deviation when looking into satisfaction of students' variable on online learning. There were 4 questions asked which were looked into and the mean for student satisfaction ranged from 3.14 to 3.66. The standard deviation ranged from 0.869 to 0.998 on the 4 questions that were answered on satisfaction of student in online learning. A detailed description of this information is shown in the table 4.4 below.

Table 4.4: Mean and standard deviation for students' satisfaction

Students' satisfaction	N	Mean	Std. Deviation
1. The course met my personal and/or professional goals	488	3.66	.869
2. The quality of the course met my expectations	488	3.35	.998
3. The course objectives, content, and assessments were consistent	488	3.14	.971
4. I would recommend this course to a colleague or friend	488	3.66	.926

4.2.2 Perceive Ease of Use

The mean and standard deviation of perceived ease of use on online learning is tabulated in table 4.5 below. Looking into the table below 6 questions was used to determine the perceived ease of use in online learning and the mean range for this was between 2.67 and 3.50. The standard deviation was 0.869 which was the lowest and a highest was 1.096.

Table 4.5: Mean and standard deviation of Perceive Ease of Use

Perceive Ease of Use	N	Mean	Std. Deviation
1. Signing on to the system	488	2.67	1.055
2. Navigating the system	488	3.23	.929
3. Accessing course materials	488	3.50	1.041
4. Sending and receiving e-mail messages	488	3.46	.932
5. Submitting assignments	488	3.43	.869
6. Using online chat	488	3.27	1.096

4.2.3 Perceive Usefulness

The perceive usefulness of online learning had a mean range of 2.70 as the lowest and a 3.68 mean as the highest on all the 6 questions that were asked to the students during the conduction of the questionnaire. The standard deviation was 1.111 as the highest on all the 6 questions asked and the lowest was 0.956 on PU3 question. The table below shows such analysis that was made.

Table 4.6: Mean and standard deviation of Perceive Usefulness

Perceive Usefulness	N	Mean	Std. Deviation
1. The course activities encouraged me to communicate and exchange ideas with other students and members within my community	488	2.70	.935
2. Registration personnel were courteous and helpful	488	3.11	1.111
3. The optional or reference materials were useful	488	3.65	.956
4. The course activities helped me to examine issues, to evaluate new ideas, and to apply what I have learned	488	3.27	1.096
5. Was the technical support or assistance to access your online materials or activities helpful	488	3.33	.947

4.2.4 Webpage Quality

Online learning in terms of satisfaction of student through use of webpage quality was assessed to see the mean and standard deviation in all the 5 questions that were asked to students in different colleges around Uzbekistan. Looking at the table 4.7 below the highest mean range on all the question asked was 3.40 and the highest standard deviation was 1.138 which can from both the materials were at an appropriate reading level and the materials were well organized questions.

Table 4.7: Mean and standard deviation of Webpage Quality

Webpage Quality	N	Mean	Std. Deviation
1. The internet links to additional content were accurate and worked	488	2.72	.916
2. The materials were sequenced appropriately	488	3.24	1.055
3. The materials were well organized	488	3.18	1.131
4. The materials were at an appropriate reading level	488	3.40	.877
5. The materials were interesting and engaging	488	2.67	1.138

4.2.5 Online Notes

Online notes variable had 4 questions that were asked and had a mean range of 2.66 and 3.29 which is the lowest and the highest range. The standard deviation also was 0.856 and 1.158 which is the lowest and highest standard deviation from the table 4.8 below

Table 4.8: Mean and standard deviation of Online Notes

Online Notes	N	Mean	Std. Deviation
1. The librarian or learning resource personnel helped me find resources	488	2.79	.856
2. Learning materials were shipped to me promptly	488	2.66	1.158
3. The off-campus learning centers were appropriately equipped	488	3.32	.962
4. The feedback provided by the instructors was useful	488	3.29	.859

4.3 Correlation Analysis

The Pearson's correlation analysis was conducted to examine the variable relationship among the independent and dependent variables.

4.3.1 The relationship between students' satisfaction and perceive ease of use

The correlation between satisfaction of student and perceived ease of use are shown in table 4.9. From the table it can be noted that there is a significant correlation between students' satisfaction and perceived ease of use in online learning. Significant positive relationship is observed between accessing course materials, submitting assignments and the students' satisfaction measure is that I would recommend this course to a colleague or friend.

In additional, there is also positive correlation between, perceive of use item, navigating the system, sending and receiving e-mail messages with the student satisfaction, items the course objectives, content, and assessments were consistent. The correlation coefficient ranged from .090 to .480, the significant level is .046.

Table 4.9: Correlation between students' satisfaction and perceived ease of use

Perceive ease of use	Students' satisfaction	Pearson Correlation	Sig. level
Navigating the system	The course objectives, content, and assessments were consistent	.480**	.000
Accessing course materials	I would recommend this course to a colleague or friend	.090*	.046
Sending and receiving e-mail messages	The course objectives, content, and assessments were consistent	.190**	.000
Submitting assignments	I would recommend this course to a colleague or friend	.094*	.038
Using online chat	The course objectives, content, and assessments were consistent	.110*	.015

4.3.2 The relationship between students' satisfaction and perceive usefulness

Table 4.10 below shows that there is a significant relationship between students' satisfaction and perceive usefulness from the data that was gathered from the questionnaires

answered by students in Uzbekistan. The correlation coefficient ranged from .090 to .213, the significant level is .047.

Table 4.10: Correlation between students' satisfaction perceived usefulness

Perceive Usefulness	Students' satisfaction	Pearson Correlation	Sig. level
Registration personnel were courteous and helpful	The course objectives, content, and assessments were consistent	.144**	.001
Registration personnel were courteous and helpful	I would recommend this course to a colleague or friend	.213**	.000
The optional or reference materials were useful	I would recommend this course to a colleague or friend	.090*	.047
The course activities helped me to examine issues, to evaluate new ideas, and to apply what I have learned	The course objectives, content, and assessments were consistent	.110*	.015
Using online chat Was the technical support or assistance to access your online materials or activities helpful	I would recommend this course to a colleague or friend	.114*	.012

4.3.3 The relationship between students' satisfaction and webpage quality

The correlation between satisfaction of student and webpage quality is shown in table 4.11 below and it can be noted that there are a significant correlations of the two variables that were used in this study. Significant correlations are noted for the 'materials were well organized' and 'the course met my personal and/or professional goals'. In additional there are also significant correlations between the course objectives, content, and assessments were consistent and the materials were at an appropriate reading level, and I would recommend this course to a colleague or friend The correlation coefficient ranged from .095 to .174, the significant level is .035.

Table 4.11: Correlation between students' satisfaction and webpage quality

Webpage Quality	Students' satisfaction	Pearson Correlation	Sig. level
The internet links to additional content were accurate and worked	I would recommend this course to a colleague or friend	.119**	.009
The materials were well organized	The course met my personal and/or professional goals	.095*	.035
The materials were well organized	The course objectives, content, and assessments were consistent	.174**	.000
The materials were well organized	I would recommend this course to a colleague or friend	.111*	.014
The materials were at an appropriate reading level	The course objectives, content, and assessments were consistent	.096*	.034

4.3.4 The relationship between students' satisfaction and online notes

From the correlation analysis that was carried out it was observed that there is no positive relationship between students' satisfaction and online notes.

4.4 Summary

This chapter explains the statistical results obtain and the interpretation of findings from the information gathered. The characteristics of the respondents in terms of name, age, gender and marital status were explained from the statistical matrix compiled. A correlation analysis was then conducted to note down if there is any relationship between the independent variable and the dependent variables that were used in this study.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.0 Introduction

This chapter presents the result which was presented in the previous chapter. Section one presented the discussion of the results. Section two suggests the recommendation for future research. Finally section three provides the conclusion of the study.

5.1 Discussion

The goal of this research was to find out if there is a relationship between independent variables perceive ease of use, perceive usefulness, webpage quality, online notes and student satisfaction used and dependent variables when it comes to online learning for pupils in colleges around Uzbekistan. It is suggested in the literature that the four variables perceive ease of use, perceive usefulness, webpage quality, online notes are related to students' satisfaction.

5.1.1 Students' satisfaction

The mean score for students' satisfaction towards online learning is dependent variable in the study. There are four indicators for students' satisfaction. The mean score ranged from 3.14 to 3.66. The highest mean score for students' satisfaction is in line with the idea suggested by I would recommend this course to a colleague or friend (3.66), while the lowest score is the course objectives, content, and assessments were consistent (3.14).

5.1.2 Perceived ease of use

Perceive ease of use is the first dimension for students' satisfaction. This variable attempts to determine how easy the students perceived the use of online learning as compared to the use of the ordinary learning methods that are used which are attending classes. There are six indicators for perceive ease of use. The highest mean score for perceive ease of use is accessing course materials (3.50), while the lowest score is signing on to the system (2.67).

5.1.3 Perceive usefulness

Perceive usefulness is the second dimension for students' satisfaction. This variable capture how useful is the introduction of online learning to students and whether the curriculum requirements for the students were being mate in online learning. The mean score ranged from 2.70 to 3.65. The highest mean score for perceive ease of use is in line with the idea suggested by the optional or reference materials were useful (3.65). Only one item recorded score of less than 3, which is the lowest score the course activities encouraged me to communicate and exchange ideas with other students and members within my community (2.70).

5.1.4 Webpage quality

Webpage quality is the third dimension for students' satisfaction. The variable webpage quality attempts to capture the quality of interface design that the students will be interacting with when learning their subjects only. The highest mean score for webpage quality is in line with the idea suggested by the materials were at an appropriate reading level (3.40), while the lowest score is the materials were interesting and engaging (2.67). It tries to

determine how students viewed the WebPages that were being used to interact with when attending there classes online.

5.1.5 Online notes

Online notes are the fourth dimension for students' satisfaction. This was assessed based on the relevance and accuracy of the online notes that would be made available to students where it was necessary and relevant to the subject area. As shown the online notes mean score range from a lowest scare of 2.66 for learning materials were shipped to me promptly to 3.32 for the off-campus learning centers were appropriately equipped.

5.1.6 Relationship between students' satisfaction and perceived ease of use

The correlation score between students' satisfaction and perceive ease of use shown in table 4.9. The table shows that there are six significant correlation students' satisfaction and perceive ease of use. This result seem to suggest that there is a positive correlation between students' satisfaction and perceive ease of use. The highest mean score for perceive ease of use is in line with the idea suggested by navigating the system (.480), while the lowest score is accessing course materials (.090)

5.1.7 Relationship between students' satisfaction and perceive usefulness

The correlation between students' satisfaction and perceive usefulness shown in Table 4.10. As shown in the table all items recorded positive relationship between students' satisfaction and perceive usefulness. The score ranged from .090 to .213. The highest mean score for perceive ease of use is in line with the idea suggested by registration personnel were courteous and helpful (.213), while the lowest score is the optional or reference materials

were useful (.090). This result indicates that perceive usefulness is also related to students' satisfaction.

5.1.8 Relationship between students' satisfaction and webpage quality

The correlation score between students' satisfaction and webpage quality shown in Table 4.11. The table shows that there are four significant correlations between students' satisfaction and webpage quality.

However all these correlations result indicate positive relation between students' satisfaction and webpage quality. The highest mean score for perceive ease of use is in line with the idea suggested by the materials were well organized (.174), while the lowest score is the materials were well organized (.095). This result also suggests that webpage quality is related to students' satisfaction.

5.2 Recommendation for future research

Future research might extend the scope of this study by involving other variables which were not looked into such as how learners actually feel when it comes to use of e-learning, which type of media would be appropriate for them to learn using e-learning facilities, and the subjects that the use of e-learning is limited to in terms of provision of education to learners. The internet will not just proved traditional information to learning but it is expected that future use of e-learning will disclose information relevant to learners as when it is required and there is no limitation in terms of geographical area.

There will be an expansion of information that could be accessed online as most of the educational information will be provided online and can be used as when a pupil require to use it.

5.3 Conclusion

Internet is increasingly providing companies and extending the scope with enormous prospects and opportunities through which they can voluntarily deal with information streaming to various groups of external users. Through companies' corporate servers, internet can provide vast quantities of information, both educational and non-educational, which users require for easily access.

The main purpose of this study was to provide insights into the use of internet for educational purposes such as learning online through accessing a university or college website. Regarding the primary objective of this study and despite the fact that pupils still do not appreciate the use of e-learning the findings clearly contribute to the understanding that there is now a large number of pupils in educational sector appreciating the use of e-learning into their curriculum. This is through use of distance learning facilities that have been provided by the use of World Wide Web.

With respect to the factors that affect colleges in Uzbekistan adopting use of e-learning, this study examined 4 factors which are Satisfaction of Students, Perceive Ease of Use, Perceive Usefulness, Webpage Quality and Online Notes. The results of the study show that there are three factors that are related to students' satisfaction. The three factors that can affect students' satisfaction are perceive ease of use, perceive usefulness and webpage quality.

Finally the findings from the research clearly showed that students are now getting to understand the values and also see it as an opportunity to understand use of new technology when it comes to learning especially those wanting to major into Information technology.

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Appendices

Appendix (A): Research Questionnaire

COLLEGE OF BUSINESS

UNIVERSITY UTARA MALAYSIA

Questionnaire survey

Dear participant:

Thank you for agreeing to participate in this research

I am currently undertaking a research project factors affecting students' satisfaction towards online learning. Your response is extremely important to the success of this study. I would like to assure you that your response will be treated as "Strictly Confidential". I would like appreciate it very much if you could answer the questions carefully as the information you provide will influence the accuracy and the success of this research. It will take no longer than 30 minutes to complete the questionnaire. All answers will be treated with strict confidence and will be used for the purpose of the study only.

Thank you for your cooperation and the time taken in answering this questionnaire

Yours sincerely,

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Section A: Demographic Profile

Please tick (√) the appropriate box to answer the questions.

1.1 Gender **Male** ☐ **Female** ☐

1.2 Status **Married** ☐ **Unmarried** ☐

1.3 Age **15-30** ☐ **31-40** ☐
41-50 ☐ **Above 50** ☐

1.4 Level of Education **High school** ☐ **Diploma** ☐
Bachelor's Degree ☐ **Master's Degree** ☐
PhD Degree ☐

1.5 Years of Experience **Less than 1 year** ☐ **1-5 years** ☐
6-10 years ☐ **11 years or more** ☐

Section B: Relationship between variables

This section is concerned with predicting the relationship between the students' satisfaction towards online learning. Please tick (√) in the box which best describes your agreement or disagreement on each of the following statements which describes your real estate's ability to use them as students' satisfaction.

(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree

	Statement	1	2	3	4	5
	Perceive ease of use					
1	Signing on to the system					
2	Navigating the system					
3	Accessing course materials					
4	Sending and receiving e-mail messages					
5	Submitting assignments					
6	Using online chat					
	Perceive usefulness					
1	The course activities encouraged me to communicate and exchange ideas with other students and members within my community					
2	Registration personnel were courteous and helpful.					
3	The optional or reference materials were useful.					
4	The course activities helped me to examine issues, to evaluate new ideas, and to apply what I have learned.					
5	Was the technical support or assistance to access your online materials or activities helpful					
	Webpage quality					
1	The internet links to additional content were accurate and worked.					
2	The materials were sequenced appropriately.					
3	The materials were well organized.					
4	The materials were at an appropriate reading level.					
5	The materials were interesting and engaging.					
	Online notes					
1	The librarian or learning resource personnel helped me findresources.					

2	Learning materials were shipped to me promptly.					
3	The off-campus learning centers were appropriately equipped.					
4	The feedback provided by the instructors was useful.					

Section C: Students' satisfaction

This section is concerned with determining the main indictors used for measuring the students' satisfaction towards online learning. Please tick (√) in the box which best describes your agreement or disagreement on each of the following indictors to determine how the students' satisfaction is achieved and maintained.

(1) Strongly disagree	(2) Disagree	(3) Neither agree nor disagree	(4) Agree	(5) Strongly agree

	Statement					
1	The course met my personal and/or professional goals.					
2	The quality of the course met my expectations.					
3	The course objectives, content, and assessments were consistent.					
4	I would recommend this course to a colleague or friend.					

Thank you very much for your help and co-operation

Appendix (B): Correlations between perceive ease of use and students' satisfaction

		SS1	SS2	SS3	SS4	PEU1	PEU2	PEU3	PEU4	PEU5	PEU6
SS1	Pearson Correlation	1	-.099(*)	.016	.108(*)	-.050	.005	.025	.073	-.018	.037
	Sig. (2-tailed)		.029	.729	.017	.275	.906	.582	.106	.694	.412
	N	488	488	488	488	488	488	488	488	488	488
SS2	Pearson Correlation	-.099(*)	1	-.110(*)	-.174(**)	-.098(*)	-.049	-.017	-.159(**)	-.215(**)	-.119(**)
	Sig. (2-tailed)	.029		.015	.000	.031	.277	.711	.000	.000	.008
	N	488	488	488	488	488	488	488	488	488	488
SS3	Pearson Correlation	.016	-.110(*)	1	.079	.078	.480(**)	-.020	.190(**)	-.042	.110(*)
	Sig. (2-tailed)	.729	.015		.081	.085	.000	.654	.000	.350	.015
	N	488	488	488	488	488	488	488	488	488	488
SS4	Pearson Correlation	.108(*)	-.174(**)	.079	1	.022	-.073	.090(*)	.067	.094(*)	-.021
	Sig. (2-tailed)	.017	.000	.081		.625	.106	.046	.137	.038	.640
	N	488	488	488	488	488	488	488	488	488	488
PEU1	Pearson Correlation	-.050	-.098(*)	.078	.022	1	.015	-.028	-.031	-.115(*)	.178(**)
	Sig. (2-tailed)	.275	.031	.085	.625		.740	.537	.491	.011	.000
	N	488	488	488	488	488	488	488	488	488	488
PEU2	Pearson Correlation	.005	-.049	.480(**)	-.073	.015	1	-.011	.156(**)	-.067	.051
	Sig. (2-tailed)	.906	.277	.000	.106	.740		.815	.001	.142	.257
	N	488	488	488	488	488	488	488	488	488	488
PEU3	Pearson Correlation	.025	-.017	-.020	.090(*)	-.028	-.011	1	.007	.113(*)	.053
	Sig. (2-tailed)	.582	.711	.654	.046	.537	.815		.870	.012	.242
	N	488	488	488	488	488	488	488	488	488	488
PEU4	Pearson Correlation	.073	-.159(**)	.190(**)	.067	-.031	.156(**)	.007	1	.173(**)	-.042
	Sig. (2-tailed)	.106	.000	.000	.137	.491	.001	.870		.000	.357
	N	488	488	488	488	488	488	488	488	488	488
PEU5	Pearson Correlation	-.018	-.215(**)	-.042	.094(*)	-.115(*)	-.067	.113(*)	.173(**)	1	-.009
	Sig. (2-tailed)	.694	.000	.350	.038	.011	.142	.012	.000		.841
	N	488	488	488	488	488	488	488	488	488	488
PEU6	Pearson Correlation	.037	-.119(**)	.110(*)	-.021	.178(**)	.051	.053	-.042	-.009	1
	Sig. (2-tailed)	.412	.008	.015	.640	.000	.257	.242	.357	.841	
	N	488	488	488	488	488	488	488	488	488	488

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

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

Appendix (C): Correlations between online notes and students' satisfaction

		SS1	SS2	SS3	SS4	ON1	ON2	ON3	ON4
SS1	Pearson Correlation	1	-.099(*)	.016	.108(*)	-.121(**)	.013	-.014	-.078
	Sig. (2-tailed)		.029	.729	.017	.008	.780	.762	.085
	N	488	488	488	488	488	488	488	488
SS2	Pearson Correlation	-.099(*)	1	-.110(*)	-.174(**)	-.138(**)	.056	.160(**)	-.029
	Sig. (2-tailed)	.029		.015	.000	.002	.218	.000	.523
	N	488	488	488	488	488	488	488	488
SS3	Pearson Correlation	.016	-.110(*)	1	.079	-.015	.031	-.218(**)	-.018
	Sig. (2-tailed)	.729	.015		.081	.735	.489	.000	.690
	N	488	488	488	488	488	488	488	488
SS4	Pearson Correlation	.108(*)	-.174(**)	.079	1	-.088	-.090(*)	.048	-.010
	Sig. (2-tailed)	.017	.000	.081		.053	.046	.292	.817
	N	488	488	488	488	488	488	488	488
ON1	Pearson Correlation	-.121(**)	-.138(**)	-.015	-.088	1	.028	-.105(*)	.022
	Sig. (2-tailed)	.008	.002	.735	.053		.531	.020	.627
	N	488	488	488	488	488	488	488	488
ON2	Pearson Correlation	.013	.056	.031	-.090(*)	.028	1	-.120(**)	.019
	Sig. (2-tailed)	.780	.218	.489	.046	.531		.008	.680
	N	488	488	488	488	488	488	488	488
ON3	Pearson Correlation	-.014	.160(**)	-.218(**)	.048	-.105(*)	-.120(**)	1	.042
	Sig. (2-tailed)	.762	.000	.000	.292	.020	.008		.352
	N	488	488	488	488	488	488	488	488
ON4	Pearson Correlation	-.078	-.029	-.018	-.010	.022	.019	.042	1
	Sig. (2-tailed)	.085	.523	.690	.817	.627	.680	.352	
	N	488	488	488	488	488	488	488	488

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

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

Appendix (D): Correlations between perceive usefulness and students' satisfaction

		SS1	SS2	SS3	SS4	PU1	PU2	PU3	PU4	PU5
SS1	Pearson Correlation	1	-.099(*)	.016	.108(*)	-.029	.059	-.076	.037	.016
	Sig. (2-tailed)		.029	.729	.017	.528	.193	.092	.412	.723
	N	488	488	488	488	488	488	488	488	488
SS2	Pearson Correlation	-.099(*)	1	-.110(*)	-.174(**)	-.040	-.076	.068	-.119(**)	.011
	Sig. (2-tailed)	.029		.015	.000	.378	.092	.134	.008	.815
	N	488	488	488	488	488	488	488	488	488
SS3	Pearson Correlation	.016	-.110(*)	1	.079	-.044	.144(**)	-.029	.110(*)	.018
	Sig. (2-tailed)	.729	.015		.081	.334	.001	.526	.015	.695
	N	488	488	488	488	488	488	488	488	488
SS4	Pearson Correlation	.108(*)	-.174(**)	.079	1	.003	.213(**)	.090(*)	-.021	.114(*)
	Sig. (2-tailed)	.017	.000	.081		.943	.000	.047	.640	.012
	N	488	488	488	488	488	488	488	488	488
PU1	Pearson Correlation	-.029	-.040	-.044	.003	1	-.070	.015	.071	.168(**)
	Sig. (2-tailed)	.528	.378	.334	.943		.120	.743	.116	.000
	N	488	488	488	488	488	488	488	488	488
PU2	Pearson Correlation	.059	-.076	.144(**)	.213(**)	-.070	1	-.094(*)	-.213(**)	.054
	Sig. (2-tailed)	.193	.092	.001	.000	.120		.037	.000	.234
	N	488	488	488	488	488	488	488	488	488
PU3	Pearson Correlation	-.076	.068	-.029	.090(*)	.015	-.094(*)	1	.126(**)	.086
	Sig. (2-tailed)	.092	.134	.526	.047	.743	.037		.005	.058
	N	488	488	488	488	488	488	488	488	488
PU4	Pearson Correlation	.037	-.119(**)	.110(*)	-.021	.071	-.213(**)	.126(**)	1	.152(**)
	Sig. (2-tailed)	.412	.008	.015	.640	.116	.000	.005		.001
	N	488	488	488	488	488	488	488	488	488
PU5	Pearson Correlation	.016	.011	.018	.114(*)	.168(**)	.054	.086	.152(**)	1
	Sig. (2-tailed)	.723	.815	.695	.012	.000	.234	.058	.001	
	N	488	488	488	488	488	488	488	488	488

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

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

Appendix (E): Correlations between webpage quality and students' satisfaction

		SS1	SS2	SS3	SS4	WQ1	WQ2	WQ3	WQ4	WQ5
SS1	Pearson Correlation	1	-.099(*)	.016	.108(*)	-.012	.026	.095(*)	.034	.002
	Sig. (2-tailed)		.029	.729	.017	.794	.571	.035	.452	.967
	N	488	488	488	488	488	488	488	488	488
SS2	Pearson Correlation	-.099(*)	1	-.110(*)	-.174(**)	-.108(*)	-.251(**)	-.083	-.133(**)	-.002
	Sig. (2-tailed)	.029		.015	.000	.017	.000	.068	.003	.959
	N	488	488	488	488	488	488	488	488	488
SS3	Pearson Correlation	.016	-.110(*)	1	.079	-.063	-.048	.174(**)	.096(*)	.064
	Sig. (2-tailed)	.729	.015		.081	.162	.287	.000	.034	.157
	N	488	488	488	488	488	488	488	488	488
SS4	Pearson Correlation	.108(*)	-.174(**)	.079	1	.119(**)	.010	.111(*)	.005	-.030
	Sig. (2-tailed)	.017	.000	.081		.009	.827	.014	.909	.508
	N	488	488	488	488	488	488	488	488	488
WQ1	Pearson Correlation	-.012	-.108(*)	-.063	.119(**)	1	.241(**)	-.021	.064	-.131(**)
	Sig. (2-tailed)	.794	.017	.162	.009		.000	.644	.156	.004
	N	488	488	488	488	488	488	488	488	488
WQ2	Pearson Correlation	.026	-.251(**)	-.048	.010	.241(**)	1	-.024	.035	-.339(**)
	Sig. (2-tailed)	.571	.000	.287	.827	.000		.590	.436	.000
	N	488	488	488	488	488	488	488	488	488
WQ3	Pearson Correlation	.095(*)	-.083	.174(**)	.111(*)	-.021	-.024	1	-.108(*)	.147(**)
	Sig. (2-tailed)	.035	.068	.000	.014	.644	.590		.017	.001
	N	488	488	488	488	488	488	488	488	488
WQ4	Pearson Correlation	.034	-.133(**)	.096(*)	.005	.064	.035	-.108(*)	1	.051
	Sig. (2-tailed)	.452	.003	.034	.909	.156	.436	.017		.259
	N	488	488	488	488	488	488	488	488	488
WQ5	Pearson Correlation	.002	-.002	.064	-.030	-.131(**)	-.339(**)	.147(**)	.051	1
	Sig. (2-tailed)	.967	.959	.157	.508	.004	.000	.001	.259	
	N	488	488	488	488	488	488	488	488	488

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

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