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Impact of User Participation in Computer Based Information System Development on the Use and User Problems

Original Article

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Abstract

E-banking is the recent phenomenon that has revolutionized the banking system from conventional to online digital mode of transactions. This study examines the job of client interest in the dimension of utilization and client issues identifying with the computerization of banks. The objectives of the study was to measure the role of different computer related behaviors in the work environment; to compute the participation of users in the development of CBIS. The study intended to understand the impacts of user participation in CBISD on the use and problems of users in the office work; and to measure the levels of participation impacts on the use and user problems in digital work environment. The population of this study were all the banking staff working in different banks in Dera Ismail Khan. A pilot study was conducted to test the instrument as well as get data for sample size determination. A sample of 180 was determined for the main study. The study reported that user participation is significantly associated with the user of computer as well as user problems. Likewise, the R-square value is 0.395 which shows the overall effect of user participation on the dependent variable 'use of computers. Similarly, the Beta value of user participation 0.451 further strengthens its relationship with the use of computers. The future research can replicate the same study with same samples in different city to further understand the change of causal linkage between factors and can examine its influence on intention to continue online banking services. The current study can be further be extended by classifying the samples as gender based on their online banking experience and to examine the change in intention to continue with online banking services. Factors that affect intention to continue online banking services that are considered important in one culture might be less important in another culture. Hence, future research could apply the same research framework by incorporating cultural factors in other countries to get broader perspective.

Keywords: User Participation, Computer Based Information System Development, Use Problems, User Problems, Impact Analysis.

Introduction

E-Banking is new to the newly emerged concept of delivering banking services. (McKinsey & Company, 2014). However, with the arrival of web in the 1990s, banks are increasingly providing their services and products online to their clients (Chetty *et al*., 2018). Technology has become a part of the banking sector; and the use of technology has increased in all areas of the banking business. E-banking has witnessed an immense growth in Pakistan recently, anywhere, and anytime banking has become a reality. E-banking is considered to have a substantial impact on banks' performance, and it offers numerous benefits and services to banks as well as to customers in terms of ease of use, low/no cost of transactions, either through Internet, telephone, or other electronic gadgets. The Internet, as an empowering innovation, has overcome geographical and proprietary obstructions and made the banking services and products available to large number of clients. It has given freedom to clients to access a bank's network anytime and from anywhere (Syed Sheheryar Ali Kazmi, & Muhammad Hashim (2015). Globalization and technological advancements have led to extraordinary, heightened competition in the banking sector in recent years. Clients are desperately seeking the distinctive features of the banks, and banks are significantly relying upon the information systems (IS) to uphold clients' allegiance (Ogunlowore Akindele John & Oladele Rotimi, 2014). The researchers and technology experts have come up with several factors that create or increase the willingness of users for the new technologies in any area of application including e-banking (Akhtar, 2 006). For instance, a researcher proposes that the absence of learning, cost, security, absence of hierarchical course, constrain the advantage of e-banking, and the executives struggle are the most significant hurdles for the implementation of e-banking (Samara et al., 2011). Whereas others state that, the success of e-banking depends on infrastructure investment, cost-benefit considerations, availability of customized technology, IS-savvy customer, employees IS proficiency, management's strategy, competition, security and privacy (Sundas, *et al*., 2015; Walsham, 2017). A volume of research from created and creating nations proposes that going 'computerized' is neither programmed nor a one-time movement. It is fairly a social procedure of working in teams of engineers and clients who hold contradicting discernments about the value of ICTs in instructional method, learning and institutional organization (McKinsey and Company, 2014). Every one of the partners should be brought into agreement and work together over the improvement direction as indicated by their separate jobs (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, Asad Afzal Humyon, 2015).

Given that the improvement of Personal Computer based data frameworks, Computer Based Information System Development (CBISD) is not only a specialized undertaking, but it also requests the thought of client support and logical elements. This study examines the job of client interest in the dimension of utilization and client issues identifying with the computerization of Banks in Dera Ismail Khan. The main objectives of the study were to measure the role of different computer related behaviors in the work environment; to compute the participation of users in the development of CBIS. Further study intended to understand the impacts of user participation in CBISD on the use and problems of users in the office work; and to measure the levels of participation impacts on the use and user problems in digital work environment.

RQ-1: Is user participation in CBISD associated with USE and USER PROBLEMS when using computers?
RQ-2: Does high level of user participation increases the level of use.
RQ-3: How does user participation reduces the user problems in using the computers?
RQ-4: Are there any group mean differences due to the demographic differences of the respondents in the sample?

Hypotheses

1. User participation is significantly associated with the level of use and user problems in the work environment of any organization. H_1.
2. User participation in CBISD significantly increases their level of using computers in their office work. H_2.
3. The higher user participation, the fewer will be the user complaints and problems regarding the use of computers. H_3.
4. Demographic attributes bring variation in the opinion of respondents H_4 to H_7.

Literature Review

E Banking in Pakistan

Web-based banking can be characterized in several ways. Specialists state this is a conveyance of administration using PCs and portable sources. Others state its conveyance of data using distinctive stage, which incorporates the utilization of telephone, web, and TV (McKinsey & Company, 2014). In increasingly more extensive terms, it includes the utilization of various offices regarding access to accounts on the web, exchange of assets by utilizing web sources and purchasing distinctive items (money related) and benefits on the web (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, Asad Afzal Humyon, 2015). eBanking clearly saves time as well as it lessens line (holding up lines) in front banks. Through eBanking the customer, enjoy different points of interest. It makes it possible to do trade online for customers from colorful spots. Free checking money related records, online stores, new item's introduction, debit, and credit card facilities, are incorporated into web banking/electronic financial administrations (McKinsey and Company, 2014). Online banking is also likewise imperative for banking industry because they can interface with different client, present new items and innovation, a source of data scattering among clients regardless of topographical limitation (Ogunlowore Akindele John & Oladele Rotimi, 2014). Line issues always connected with, when there are no better facility available in-service territories. To get their simple jobs done, electronic banking plays an overwhelming job in clients exchange and it is more advantageous for them because they do not hold up long in lines (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan H. & Samra, 2011). According to Rahimuddin *et al*. (2010), because of quick challenge among the banks of Pakistan, banks need to give progressively proficient, powerful, and fast administrations to their clients to improve the financial framework. Electronic banking limits the volume and estimation of paper-based exchange in Pakistan because of comfort result (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015). In Pakistan, foreign banks are the initiators for presenting eBanking system in the mid of 1990's. After the 1990's, household banks also adopted this foreign innovation, e-banking services like ATM cards (Automated Teller Machine), and debit cards (Habibullah *et al.*, 2016). The electronic financial system activities are performed through the web and finances are always under control. From a client's perspective, E-banking implies 24-hours access to cash through an ATM. However, with the progression of time, electronic banking now includes distinctive sorts of exchange. Electronic banking is the real result of electronic business that facilitates the huge number of clients in brief time (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan H. Samra, 2011). Clients use e-banking to gain data of a wide range of exchange in secure condition by utilizing the bank's site. Electronic banking is the achievement of innovation, which made too simple the life of individuals. Presently multi day's electronic banking is the foundation of each bank, particularly in Pakistan (Ogunlowore Akindele John & Oladele Rotimi, 2014).

Use of Information Technology in E-Banking

In recent times, all transactions can be done from the customer's home, and they do not need to visit the bank branch. Now, Technology has become a driver (Samra, Manzoor, Sumra, & Abbas, 2011). The growth of the internet, mobiles and communication technology has created a different dimension to banking. The information technology (IT) is available today for customer acquisition by creating automation in banking process by providing and delivering ease and efficiency to the bank's customers. Technology in banking becomes in the form of computer-based application. The technology is not visible to the customers who are able only to press numbers on their telephone keypad; it assumes that there is less control by the customer during transaction (Beigi, Jorfi, Tajarrod & Beiji, 2016). IT in commercial banking comes in the shape of Electronic Funds Transfer Systems (EFTs), Automated Teller Machines (ATM), Point of Sale (POS) and Automated Clearing Houses (ACHs). Service delivery by implementation of technology has become the successful and acquisition of telephonic services which require the customer to use the telephone keypad to interact with an IVR (Ankrah, 2012; Joseph, Mcclure & Joseph, 1999).

User Participation in CBISD

In this manner, concerning eLearning ventures, user strengthening is the allowing of extraordinary basic leadership forces to the essential specialists in instruction -educators and understudies (McKinsey & Company, 2014). Another researcher proposes the arrangement of a Role Models from the User-gatherings' who will function as disciplinary insiders or workforce peers in their home offices and inspire their partners through talk on the benefits of ICTs for clients (McKinsey & Company, 2014). The specialist further contends that for most part ICT-preparing is stretched out by the technical specialists of ICTs in any case, - faculty individuals who use advances may really have a superior handle of the best applications in their very own controls (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015). The new patterns in innovation reconciliation in instruction are to make such advanced situations, which are made to create scholarly associations between the instructors and students (Young, 2003). The manageable associations inside the colleges help in conquering the sentiments of advanced partition among the college constituents including understudies, personnel, scholastic processing staff, and chairmen and to investigate various and compelling employments of ICTs (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan, & Samra, 2011). Likewise, instructive associations with remote establishments for offering joint courses, receiving joint educational module or some other joint instructive game plans can help make more extensive dimension cooperation of clients over the visitors in comprehension and utilizing new frameworks (Ogunlowore Akindele John & Oladele Rotimi, 2014; Chetty *et al*., 2018). The powerful coordination of ICTs into the enlightening structure is an amazing, multifaceted procedure that incorporates development as well as educational programs and instructional method, institutional status, educator abilities, and long-haul financing, among others (Tinio, 2002). The development of creative practices in eLearning has added to the advancement of new aptitudes and skills and novel methods for utilizing them inside undertaking groups (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan, & Samra, 2011). In any case, the structure and improvement standards should be lined up with educator and teachers' comprehension of understudy necessities (Young, 2003). Since ICTs can add to learning, they can't convey learning and along these lines, the mix of instructional method and learning models inside the suitable innovation is fundamental to make eLearning effective (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015).

User Needs analysis for Participation

Most educators accept the premise that, in an ideal world, learning will be delivered in a manner and context that best suits the needs and learning styles of individual learners. Developers need the ability to identify and analyze user needs and consider them in the selection, creation, evaluation and administration of computer-based systems and an ability to effectively integrate IT-based solutions into the user environment. For example, the success of eLearning software is measured on how far the product fulfills stakeholder's needs and requirements on time and within a budget. Understanding human requirements takes time and effort but these assessments are essential in planning the introduction of ICTs to communities. Results show that promoters of technology view ICT as a way of transforming education (substantive approach) whereas teachers see it only to an end (instrumental conception). The advocates of technology base their vision on broader social changes; the other group considers only the student-requirements and the practical ways to meet them therefore, the developers must balance the needs of all stakeholders by getting academic computing staff, faculty, and administrators together. Higher education has to ensure that it serves the needs of the professions, industry and the wider community and does not merely continue its traditional role of producing more researchers and academics. Given the changing nature of higher education and the pressures placed on institutions, the significance of addressing stakeholders' needs has increased. The selection and adaptation of technologies must be based on educational needs and objectives, and not the technologies in themselves. Therefore, there is need to move educational practices forward by understanding the users, their behavioral changes, and an appreciation of the needs of dot.com, knowledge-based, hybrid organizations, which use these users of eLearning. Teachers need to identify needs and plan, implement, and assess classroom instruction through the collaborative use

of technology and other resources. However, they commonly face several obstacles; therefore, developers must categorically address the needs of diverse teachers and students. This is on record that the transition from traditional instruction to eLearning is best accomplished through systematically addressing the needs of faculty. Recent research shows that technology properly deployed in the classroom can make the learning process more interactive and enjoyable if curriculum is customized to learners' needs and personal interests. The challenge of meeting the needs of Net-savvy students is daunting, but educators are assisted by the fact that this generation values education and they do want to learn. Since individual learning styles differ, and instructors cannot always accommodate each student's needs, however, if several learning opportunities are provided, learners can choose the matching one. Learning style is a predictor of an individual's learning behavior. To investigate user needs a mix of techniques are used including paper and web-based questionnaires, interviews with teachers and learners, expert review, and direct observation. However, a sustained collaboration among all the university constituents could foster exchange of ideas and allow all to express their needs and be actively involved in the development process. Similarly, ICT professionals should work with departmental heads to identify faculty members who can serve as technology liaisons to their home departments. These technology role models can motivate their colleagues to use technology. In an African university experience, researchers found that faculty members have contributed significantly through participation in the evolution of eLearning, particularly in conducting a university-wide needs analysis.

Use of Computers

The setting is a more extensive term covering both natural and human parts of the working environment inside which engineers and clients take a shot at eLearning advancement and use prerequisites. For instance, being in a creating nation is an ecological setting while at the same time being male/female, proficient/non-proficient and in fact insightful or techno-phobic are the components of human setting (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015). The effects of these relevant factors change from nation to nation, city to city, organization to foundation and individual to individual in this manner making a jigsaw-confuse for the eProject-groups to recognize and comprehend the logical assortments for creating esprit-de-corps in the engineers and clients (CINIC, 2016).

User Training

Both instrumental and substantive views of eLearning emphasize the role of the user. Instrumentalists contend that technology is neutral and therefore its impacts and benefits entirely depend on how they are harnessed; and used for individual, organizational, national, and international purposes. While substantive theorists go beyond this and accentuate that instrumental view of ICTs is an underestimation of the potential of these technologies. They can be used more intellectually and intuitively to cast deeper impacts on society by providing maximum possible services to humankind. Thus, they overstress the concept of use to represent 'not the tools' rather 'technologies' in terms of modeling and applications of ICTs in eLearning structures and operations. However, use of either instrumental or substantive applications of ICTs in the learning environments squarely depends on the quality of "eTraining" given to the teachers, students, and administrators. Thus, the success of technology infusion in education depends on the training of teachers; because it is the teachers who are going to teach students as well as administrators. The adoption of ICTs is a lifelong learning process. However, for immediate uses particularly in organizations like universities, the users are supposed to learn quickly to use the new technologies. Therefore, training is a narrow term than education that aims at preparing a learner for a particular job, function, or profession. Education refers to a long-term learning process with high-level objectives of developing moral, cultural, social, and intellectual dimensions of an individual and society. Furthermore, lack of technology integration among teachers in classrooms is considered as a major concern of education in the background of technology-driven, information based, and global society. The development of innovative competencies in eLearning is rapidly surfacing as the key issue for teacher training. Within universities, the implementation of eLearning is difficult for many reasons including the hesitance of faculty and staff members: decision makers and academics to change. The research shows that many eLearning projects fail due to many reasons but particularly, the lack of adequate training to support the program. Likewise, for the students, a teacher's role has

changed from providing well-cooked teacher's knowledge for passive students to self-cooked inputs by the students themselves. For this purpose, the students must be self-disciplined, self-motivated and at the most mature in the field of ICTs and their applications. However, it is notable that like teachers, the learners' preferences for their learning path depends on their personal characteristics of age, gender, perceptions about ICTs, familiarity with the computer applications, and the way of learning preferred by the learner. There is a need to change the roles of both teacher and learner. The employee is no longer a 'sage on the stage' rather a 'guide on the side' in the new learning environments. Likewise, an employee is no longer passive receivers of contents rather partners in the learning process.

User Problems

In the banking sector, the users of computers are officers and staff. At general level, they face the following problems in the background digital work environments:

Change Management

The dependence on ICTs is transforming the universities UQA (2001). It has been recognized that eLearning is not merely another medium for the transmission of knowledge but that it changes the relationship between the teacher or trainer and learner (Gray *et al*., 2003). Therefore, successful integration of ICTs in education depends on the planning for the changes demanded by technologies (Aaron *et al*., 2004). Cultural change is brought about by greater access to information and the fact that this access is provided by new technical means makes it more "scientific". This type of cultural change also creates a form of stress to keep the pace with change and fear of becoming an "outcast in the new information society (Sasseville, 2004)." The technology paradigm shifts changed not only the way of computing but also how the technology itself is perceived by society (Nawaz & Kundi, 2010a; Kundi & Nawaz, 2010). ICTs are bringing not only technological innovations, but also social change and have power-implications besides affecting the way people use the information and think and conceptualize the world (Sasseville, 2004). ICT-related change management is the most influential change process in our educational systems in the last and coming decades - a change process that is not only going to determine the form of the educational system but also the nature of education and thus the nature of the coming generations (Aviram & Tami, 2004). For example, one of the most striking organizational changes is "the transformation of blue-collar employees into white-collar workers (Ezziane, 2007)." The universities must change in three dimensions: 1. university structures and the interrelations between universities and the private sector; 2. Academic productivity and the relations between 'change managers or developers' and academic workforce; and 3. Teaching and learning, and the social relations between academic staff and students in the teacher/learner/artefact interface (UQA, 2001). Pedagogical and academic tradition is important to the teachers in the adaptation process because they seek a change towards a new practice based in tradition. This could be interpreted as a contradiction holding back change and limiting innovation. The teachers express it in another way and see the implementation of ICT as a way of re-interpreting values inherent in tradition (Nyvang, 2003; Qureshi *et al*., 2009b; Nawaz & Kundi, 2010b; Nawaz *et al*., 2011). Educational cultures pass through different phases of maturity regarding change: ready to move forward, backward, or maybe not at all (Aaron *et al*., 2004). Similarly, technology-related changes are not perceived as a collective experience or social change rather, personal challenge (Sasseville, 2004; Nawaz & Kundi, 2006). Thus, e-Pedagogy transforms the teacher from "sage on the stage" to "guide on the side", and students changes from being passive content-receivers to active and participative learners (Mehra & Mital, 2007).

Digital Change

One of the biggest threats to ICT-enabled projects is resistance to change (Tinio, 2002). Teachers are reluctant to integrate ICTs into their daily scholarly activities and this situation has not changed over the past few years (Sasseville, 2004). Research shows that technical issues are given priority over the educational change, which is not linked with the institution wide strategies (Valcke, 2004). While most educators acknowledge the significance of eLearning, problems continue to recur in the adoption process showing a critical gap between perceptions, theories, and practices of teachers (Knight et al., 2006). Thus, there are many problems and concerns related to eLearning such as, low rates

of participation, learner resistance, high non-completion rates, poor learner performance (Kanuka, 2007; Kundi & Nawaz, 2007). Similarly, the academics sometimes refuse to change curricula and pedagogic approaches; teaching staff and instructors lack incentive and rewards; there is a lack of feedback towards higher levels of decision and general policy, and little impact on strategy definition and implementation (Loing, 2005). Thus, there are many barriers in the implementation of eLearning solutions in HEIs. Some problems are classic: inertia of behavior of people, their resistance to changes, etc. People who lack better access to information have a fear of isolation but if eLearning environments are created properly, they can develop collaboration in all folds of university life (Vrana, 2007; Qureshi *et al*., 2009b).

Approaches and Attitudes to Change

There are different views about the nature and aims of ICTs in education therefore varying behaviors and attitudes are found in the development, use and change management of eLearning projects. One of the most obvious characteristics of human beings is their readiness to attribute meaning to what they observe and experience. Whatever is the conception of technology, the same is expressed in the physical attitudes of the people. The administrative, curricular, didactic, organizational, systemic, cultural, and ideological approaches are physically implemented through either agnostic, conservative, moderate, radical, or extreme radical attitudes towards the CBIS development and implementation trajectory. Likewise, the research shows that developers (promoters) view ICTs as a way of transforming education whereas users (teachers, students, and administrators) see it only to an end. At the broader level, however, there are two extreme views of ICTs for education. Some educators are strong advocates of technological innovation while others are reluctant to accept ICTs as indispensable to the learning process. These divergent reactions and concerns have thus created a continuum that represents various attitudes towards technology. On one extreme is the instrumental view, which takes eLearning gadgets as an addition to the technology cache. The impact of this view and resultant use is only at the technical levels. On the contrary, there is substantive view, which posits that ICTs are more than tools with positive and negative impacts for both technical and broader social changes.

Government Policies

Government agencies control goal setting, working conditions, performance evaluation, and the resource allocation for eProjects especially in public sector universities. Governments are establishing committees, forming task forces, and dedicating substantial funds for the enhancement of technology-based instruction. The Government founds the growth of a powerful Indian ICT industry on the concerted efforts. CBIS has clear implications for national, regional, and local governments in terms of the need to establish policies and practices that enhance the capability of public sector organizations to engage with a range of development processes that cross-institutional boundaries. When formulating policy, administrators tend to favor the reformist approach, but in practice, they are generally technocratic. Most of the administrators, bureaucrats and politicians apply "administrative approach" to eLearning that is, having a certain ratio of computers and other related equipment in the institution thus, sheer existence of technology in terms of quantity and quality of equipment. The political meaning of eLearning is the modernization of the whole education system. However, in government policy, ICTs are seen just as one of the tools for learning however, while, and CBIS is "much more than computers in the office. In Australian universities, as the number of students have increased, governments have not responded with increases in funding and support. As a result, many universities have been compelled to seek to expand their revenue base into private sources, both domestically and overseas (UQA, 2001). There is a great controversy on educational commercialization. The traditional stakeholders including HEIs, teachers' unions, students, and scholars loudly oppose commodification of higher education (UNESCO, 2004). However, current declines in many world economies have forced the higher education to increase online courses and create funds showing educational commercialization at the HEI levels (Schou, 2006). However, free and open-source systems (FOSS) are counter fighting for de-commodifying EFA and LLL (Snow, 2006; Mejias, 2006; Stephenson, 2006; Nawaz, 2010). One of the many challenges facing developing countries today is preparing their societies and governments for globalization and the information and communication revolution (Tinio, 2002). In Pakistan,

government has tried to eradicate illiteracy, but government projects for mass literacy have become administrative and bureaucratic nightmares. This is one of the reasons why Pakistan has not been able to improve its literacy level (Sattar, 2007). Similarly, lack of local expertise in project management; sufficient or up-to date project planning, tracking and control skills are usually not available in the beneficiary countries; and lack of local research and content - are some of the most significant hurdles in improving the access to and awareness of eLearning in Pakistan (Hameed, 2007; Nawaz & Kundi, 2010a; Nawaz, 2010; Nawaz, 2011).

Broader Social Context

The integration of ICTs in E-Banking demands a re-definition and re-evaluation of their role in education and development of society according to the conditions of social context. The new social context has changed and now there are communication networks, where access to information and knowledge is radically changed, and where knowledge is becoming a central economic driving force. Thus, "learning cannot be separated from its social context. The employees of the modern age are who serve the knowledge society, are pushed to use technology by various agencies including media, educational government, professional associations, and parents. As knowledge is becoming a tool for power as well as an object of trade, universities are driven to situations of competition, among one another and with the private sector, especially with the development of eLearning and trans-national systems. New departments in traditional universities, or new institutions of various kinds, are appearing. The advantages of eLearning depend on the nature and type of the context. A study on CBIS practices in China and found that most of the currently applied eLearning-models in China are based on the American settings, however, unlike China American universities abound in resources so Chinese should better tune their projects with domestic context and get real advantages from ICTs.

An examination from colleges by David Lewis & Ruth Goodison (2004) uncovers that the individuals who were utilizing fruitful eLearning-activities, emphatically seen that the ―developments should have been driven by teaching method, not the technology (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan H. Samra, 2011). Likewise, information on eLearning encounters in created and creating nations give enough proof to comprehend that it isn't innovation (Jewels and Ford, 2006) rather human and social issues which can either fill in as basic achievement factors or transform into basic disappointment factors (Ogunlowore Akindele John & Oladele Rotimi, 2014). For instance, culture is a profoundly persuasive go between in the present instructive conditions. The instructive model is likewise part of the way of life of the association (Syed Sheheryar Ali Kazmi & Muhammad Hashim (2015). ICTs open new open doors for understudies and instructors, yet they likewise make new difficulties.

The current incredulity about eLearning, for example, it is a danger to formal training from nursery to college and it isn't simply the innovation which is expanding learning with PCs rather the instructional and substance contrasts, or curiosity impacts (Ogunlowore Akindele John & Oladele Rotimi, 2014). A few scientists report that notwithstanding the best of goals, many their eLearning ventures at last flop because of numerous reasons. For example, unseemly innovation, poor task usage, ill-advised utilization of the hardware, absence of development, insufficient preparing of partners and contrariness of the undertaking with a moving social and political setting (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015). Thus, following factors are having high frequency of use and are considered as the measurement tools for the prospects of eBanking systems:

1. Government e-policies (GEP): Although Pakistan has entered e banking lately, it has achieved greatly in a short span of time. Now the government is becoming aware of the need for policy frameworks for the development of e-commerce assuring uniformity in all policy sectors, preventing the occurrence of effort duplication, duly considering the e-commerce issues, and making sure the service delivery to business and customers (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan, &. Samra, 2011). Nevertheless, in Pakistan, there is no dedicated e-business policy although an IT policy exists of which e-business / e-commerce is just a nominal part, hence, no adequate resolves for e-business. Moreover, studies have established that IT policy itself is inefficient, owing to which adoption of ICTs and the growth of e-business are slack (Habibullah *et al.*, 2016).

2. Quality of Internet (QOI): In e banking, the banks provide an assortment of services through various electronic distribution technologies, for example, the Internet, WAP, telephone banking, and video-banking (McKinsey and Company, 2014). Accessibility is a major quality question related to ease of use and, hence, has an impact on the users' attitude. Managers, thus, may look into the progress in accessibility which may perhaps enhance the ease of use of e banking, which consequently can develop users' attitudes and finally and broaden the prospects of e-banking (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015). Conceiving the merits of broadband multimedia, management is required to benefit from third-generation wireless technology to enhance e-banking services. Similarly, the web is acquiring a fast change in the structure and conveyance of individual money related administrations. Consequently, the executives of banks must reconfigure the programmed teller machine system to guarantee Internet capacity (Syed Sheheryar Ali Kazmi & Muhammad Hashim (2015).
3. E-Banking Awareness (EBA): Awareness, which usually has a positive impact on attitudes, can improve the approach of e-banking clients. These efforts are, however, not the same as their fundamental goal to boost profits, yet it can probably lead to enhanced awareness of clients to utilize e-banking services (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan, & Samra, 2011). Reports show that the primary reasons of user resistance are low apprehension of new technologies, fear of computers, lack of computer use, status quo, the inadequate technological training of the management and the workers (McKinsey and Company, 2014). Due to these issues, the systems will remain inactive until clients get comfortable with the use of new systems. Therefore, arrangement of good preparing projects for clients is essential for the prospects of eBanking (Ogunlowore Akindele John & Oladele Rotimi, 2014).
4. Perceived Usefulness (PU): Perceived usefulness is the degree to which an individual thinks that utilizing a specific system will bring improvement in his performance. Studies about TAM have been carried out by factoring in the perceived convenience in use, perceived utility, and attitude towards accepting new technologies. For these conceptions, measures have been developed, validated, and taken in many technology adoption studies (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015). The basis of TAM is on the perceived ease of use and utility, where adoption attitude of an individual is influenced by willingness to utilize a particular system, which consequently is influenced by the perceived ease of use and utility of the system (Haas, Criscuolo, & George, 2015).
5. Perceived Ease of Use (PEU): Attitude of an individual towards the use of technology is t directly or indirectly affected by perceived ease of use. The simpler the use of e-banking, the more prominent will be an individual's feelings of strength of mind and self-efficacy (Ogunlowore Akindele John & Oladele Rotimi, 2014). Perceived ease of use refers to the extent to which an individual believes the use of a specific system to be free of both mental and physical efforts (Suh and Han, 2002). Therefore, it appeals to reason that perceived ease of use may positively influence a current user's willingness to continue using e-banking (Tat et al., 2008). Therefore, the perceived ease of use is the extent to which a person believes that using a certain system will be easy to learn, simple, flexible, and smooth (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015).
6. Security & Privacy (S&P): Security is an issue of great worry in e-banking. Hence, banks should provide clients with reasonable and physical security suitable for information that is of sensitive nature (Comptroller, 1999: 18). Users have a profound worry while providing their account information or making payments online (Furst *et al.*, 2000). With the growing number of services and products offered online, the users become more worried about security and privacy problems (Jahangir & Begum, 2008). Hence, privacy and security are among the main factors in calculating the prospects of eBanking (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan, & Samra, 2011).
7. Trust of the Customer (TOC): Trust has three principal qualities: integrity, benevolence, ability. Integrity refers to the fact that a trustor believes in a trustee for making honest agreements, telling the truth, ethical action, and promise fulfillment. Benevolence is the extent to which a trustee is supposed to be beneficial for a trustor, apart from the motive of profit (Syed Sheheryar Ali Kazmi & Muhammad Hashim (2015). Ability implies that a trustor believes that a trustee has the ability and capacity to do for him/her what he/she needs to be done (Haas, Criscuolo, & George, 2015). Thus, the ability, benevolence and trust together with compatibility, are critical in affecting the current users‟ expectation to keep utilizing eServices, along these

lines, iBanking establishments should concentrate on these issues for win the confidence of customers (Ogunlowore Akindele John & Oladele Rotimi, 2014).

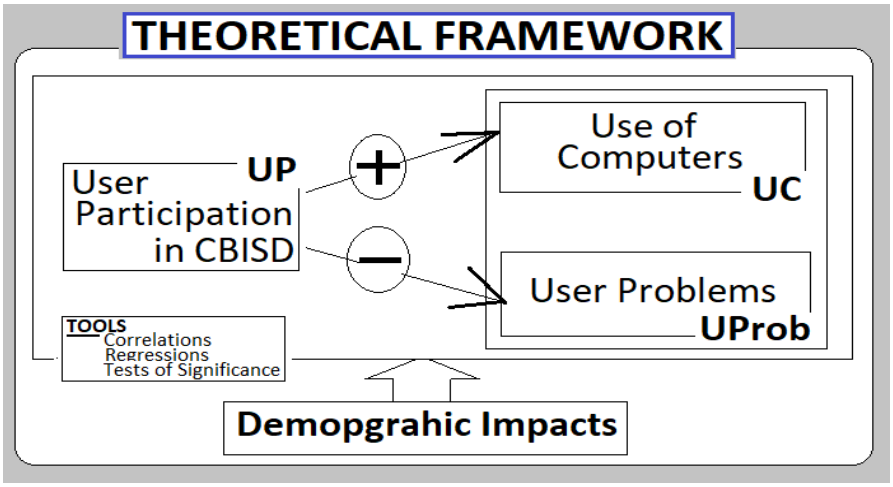
8. Quality of eBanking Services (QOS): In iBanking framework, the clients may not be completely mindful of the specialized subtleties and the work weight of every worker, particularly when the framework runs easily (Ogunlowore Akindele John & Oladele Rotimi, 2014). Nevertheless, if the framework is inadequately working because of old innovation or the constrained specialized ability of the bank's staff, it might rapidly grab the eye of the clients, and accordingly the client maintenance turns into an issue for the banks. Consequently, the iBanks managing eTransactions must make great interest in the support and up-degree of innovation and in aptitudes improvement of their staff, to stay focused in the market (Sundas Saeed, Maliha Azim, Ali Iftikhar Chaudhry, & Asad Afzal Humyon, 2015).
9. Client Acceptance (CA) The comprehension of customers‟ acknowledgment of eBanking can assist monetary foundations with formulating aggressive showcasing systems and vital IT arranging in the financial segment (Sana Ahmed Samra, Mohammad Khurram Manzoor, Hassan, & Samra, 2011). Customer acceptance of eBanking can be characterized as the continued utilization of technology for different banking products and services (Haas, Criscuolo, & George, 2015). Most of the clients utilize internet banking to pay bills, viewing of their account balances to keep an eye on their money matters, and to check the received payments from other parties (Yang & Ahmed, 2009). Thus, eBanking users‟ attitudes vary based on product information, services offered, form of payment, delivery terms, and security and privacy of their transactions (Habibullah *et al*., 2016).

Theoretical Framework

Theoretical framework emerges from the literature review giving a structured view of research variables and their interrelationships with positive and negative impacts. Figure 1 is the graphical presentation of the theoretical framework. The model shows one predictor variable (user participation in the CBIS development process) with arrows to the two criterion variables (use of computers & user problems). Moreover, signs tell that UP is positively linked with UC while UP has a negative relationship with UPRB. These links have been used to generate hypotheses and test them with the help of field data for verifying the validity and reliability of the assumed relationships reported in the existing research. The model further shows that demographic attributes of respondents also affect their opinion regarding the existence and trend of different variables in the model.

Figure 1

Schematic Diagram of the Research Model



Method

This study used literature review as well as field surveys. The population of this study were all the banking staff working in different banks in Dera Ismail Khan City. Ideally, one wants to study is the entire population. However, usually it is impossible or unfeasible to do this and therefore one must settle for a sample. According to Black & Champion (1976), sample is a portion of elements taken from a population, which is considered representative of the population.

A pilot study was conducted to test the instrument as well as get data for sample size determination. The formula used was $[(SD^2)/(E^2/z^2)+ (SD^2/N))]$ (Weirs, 1984). A sample of 180 was determined for the main study. The questions are assigned weight on a 5-point scale rated 1 to 5 as follows. Strongly Agree 5, Tends to Agree 4, Neutral 3, Tends to Disagree 2 and Disagree 1 and the reverse is for negative statements. Copies of the questionnaire were distributed to respondents at workplaces. After some time, the researcher will go back and collect the answered questionnaires.

Reliability and Validity

Reliability statistics in statistics & psychometrics is the quality of overall regularity of a measure. A measure is said to have a high level of dependability if it gives comparable results under consistent circumstances. Internal consistency is measure through Cronbach's alpha, particularly, a set of items how closely related to a group. Technically speaking, Cronbach's alpha is coefficient of reliability or consistency, and it is not a statistical test.

Table 1
Reliability Statistics

	Variables and Instrument	N of Items	Cronbach's Alpha
1	User Participation in CBIS	12	.936
2	Level of Using CBIS	10	.891
3	User Problems of CBIS	12	.928
4	**Questionnaire**	34	.745

Validity Statistics

Validity is the degree to which an idea, measurement and conclusion is well founded and corresponds correctly to the actual world. The term valid is derived from the Latin word 'validus' which means strong. The validity tool for a measurement for example, a test in education is considered^ to be the degree to which the tool^ measures what it claims to measure in this type of case, so we can say that the validity tool is an equal to accuracy. Scientific validity reports the nature of reality & as such is an epistemological issue other than a question of measurement. Validity is very significant because it can help to determine what kind of tests to use and to ensure that researchers are utilizing such methods that are not only cost effective, ethical and but also a method which truly measures the concept/construct in question.

Table 2

Validity Statistics (User Participation in CBISD)

KMO and Bartlett's Test				Matrix	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.886	Qs	Score
Bartlett's Test of Sphericity		Approx. Chi-Square	1489.011	UP1	.895
		df	66	UP2	.850
		Sig.	.000	UP3	.775
				UP4	.648
	Required		Computed	UP5	.884
KMO test	= or >0.7		.886	UP6	.869
Bartlett's test	= or < .000		.000	UP7	.714
Factor Loadings	= or > .4			UP8	.906
				UP9	.962
				UP10	.639
				UP11	.574
				UP12	.467

Table 3

Validity Statistics (Use of CBIS)

KMO and Bartlett's Test				Matrix	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.826	Qs	Score
Bartlett's Test of Sphericity		Approx. Chi-Square	872.712	LUC1	.880
		df	45	LUC2	.454
		Sig.	.000	LUC3	.502
				LUC4	.689
	Required		Computed	LUC5	.728
KMO test	= or >0.7		.826	LUC6	.818
Bartlett's test	= or < .000		.000	LUC7	.849
Factor Loadings	= or > .4			LUC8	.861
				LUC9	.713
				LUC10	.588

Table 4

Validity Statistics (User Problems of CBIS)

KMO and Bartlett's Test				Matrix	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.852	Qs	Score
Bartlett's Test of Sphericity		Approx. Chi-Square	1671.603	UPRB1	.964
		df	66	UPRB2	.900
		Sig.	.000	UPRB3	.764
				UPRB4	.814
	Required		Computed	UPRB5	.742
KMO test	= or >0.7		.852	UPRB6	.797
Bartlett's test	= or < .000		.000	UPRB7	.894
Factor Loadings	= or > .4			UPRB8	.546
				UPRB9	.740
				UPRB10	.575
				UPRB11	.467
				UPRB12	.696

Results and Findings

This section presents the results and findings from the analysis of firsthand data from the respondents in the sample. Since field study is conducted to verify the relationships between different variables as suggested by the existing research, therefore several hypotheses were tested for reaching the answers to the research questions set forth in the research project.

Table 5
Descriptive Statistics on Research Variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
User Participation	137	2.00	4.92	3.4915	.71188
Use of Computers	137	1.90	4.00	2.9876	.51155
User Problems	137	1.17	4.00	2.8279	.73849

Table 5 shows the descriptive statistics of research variables. It includes the minimum average value, the maximum average value, the mean, and the standard deviation.

Testing of Hypotheses

Associations

H_1. User Participation is significantly associated with UC and UProb

Table 6
Associations of the Variables

Correlations (n = 137)			
		User Participation	Use of Computers
Use of Computers	Pearson Correlation	**.628****	1
	Sig. (2-tailed)	.000	
User Problems	Pearson Correlation	**-.651****	-.390**
	Sig. (2-tailed)	.000	.000

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

The above table 6 shows the correlation of User participation with the Use of computers and User problems. In this regard, the result shows that user participation is positively, and significantly associated with the use of computers. Similarly, the User participation is negatively and significantly associated with the User problems. Thus, the hypothesis is fully accepted with the conclusion that User participation is significantly associated with the user of computer as well as user problems.

Prediction (Positive)

H_2. User Participation has significant positive effect on the Use of Computers.

Table 7
Positive prediction of Use of Computers

Model Summary						
Model	R	R^2	Adjusted R^2	Std. E. of Estimate	F	Sig.
1	.628a	**.395**	.390	.39950	87.991	.000b

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	1.412	.171		8.233	.000
	User Participation	**.451**	.048	.628	9.380	.000

a. Dependent Variable: Use of Computers; b. Predictors: (Constant), User Participation

In table 7, the R-square value is 0.395 which shows the overall effect of User participation on the dependent variable 'Use of Computers'. Similarly, the Beta value of User participation 0.451 further strengthens its relationship with the Use of Computers. Thus, the hypothesis is accepted as TURE.

Prediction (Negative)

H_3. User Participation has significant negative effects on User Problems.

Table 8

Negative prediction of User Problems

Model Summary

Model	R	R^2	Adjusted R^2e	Std. E. of Estimate	F	Sig.
1	.651a	**.424**	.420	.56261	99.320	.000b

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.186	.241		21.479	.000
	User Participation	**-.675**	.068	-.651	-9.966	.000

a. Dependent Variable: User Problems; b. Predictors: (Constant), User Participation

In table 8, it can be seen that the R-square value is 0.424, which shows the overall effect of User participation on the dependent variable 'User Problems'. Similarly, the Beta value of User participation -0.675 further strengthens its relationship (Negative) with the User Problems. Thus, the hypothesis is accepted as TURE.

Group Mean Differences

H_4. The public sector is scoring higher than the private sector.

Table 9

Group Mean Differences (Sector)

Group Statistics

	Sector	n	Mean	Std. Deviation	Std. Error Mean
User Participation	Public	76	3.8213	.55003	.06309
	Private	61	3.0806	.67905	.08694
Use of Computers	Public	76	3.1526	.48620	.05577
	Private	61	2.7820	.46922	.06008
User Problems	Public	76	2.6272	.67488	.07741
	Private	61	3.0779	.74316	.09515

Independent Samples Test

		F	Sig.	t	df	Sig. (2-tailed)
User Participation	Equal variances assumed	6.332	.013	7.055	135	.000
	Equal variances not assumed			6.895	114.443	.000
Use of Computers	Equal variances assumed	.048	.827	4.504	135	.000
	Equal variances not assumed			4.522	130.462	.000
User Problems	Equal variances assumed	1.350	.247	-3.713	135	.000
	Equal variances not assumed			-3.674	122.708	.000

From the analysis of table 9, Independent Samples Test, the p-value of all the three variables, i.e., User participation, Use of computers, and User problems is below 0.05 (.000, .000, and .000 respectively). Thus, the hypothesis is fully supported by all the three variables.

H_5. Post Graduate respondents score higher than the Undergraduate respondents.

Table 10
Group Mean Differences (Qualification)

Group Statistics					
	Qualification	n	Mean	Std. Deviation	Std. Error Mean
User Participation	Undergraduate	78	3.4295	.71017	.08041
	Postgraduate	59	3.5734	.71185	.09267
Use of Computers	Undergraduate	78	2.9782	.50315	.05697
	Postgraduate	59	3.0000	.52654	.06855
User Problems	Undergraduate	78	2.9583	.67243	.07614
	Postgraduate	59	2.6554	.79079	.10295

Independent Samples Test						
		F	Sig.	t	df	Sig. (2-tailed)
User Participation	Equal variances assumed	.604	.438	-1.174	135	.243
	Equal variances not assumed			-1.173	124.887	.243
Use of Computers	Equal variances assumed	.181	.671	-.246	135	.806
	Equal variances not assumed			-.245	121.963	.807
User Problems	Equal variances assumed	4.169	.043	2.420	135	.017
	Equal variances not assumed			2.366	113.270	.020

From the analysis of table 10, Independent Samples Test, the p-value of only one variable i.e., User problems is below 0.05 (.000), whereas the other two variables have p-values (.243, and .806 respectively) greater than 0.05. Thus, the hypothesis is partially supported by only one variable.

H_6. The mean score of non-managers is higher than managers.

Table 11
Group Mean Differences (Designation)

Group Statistics					
	Designation	n	Mean	Std. Deviation	Std. Error Mean
User Participation	Manager	79	3.4599	.74677	.08402
	Non-managers	58	3.5345	.66539	.08737
Use of Computers	Manager	79	2.9709	.54588	.06142
	Non-managers	58	3.0103	.46441	.06098
User Problems	Manager	79	2.8407	.77121	.08677
	Non-managers	58	2.8103	.69770	.09161

Independent Samples Test						
		F	Sig.	t	df	Sig. (2-tailed)
User Participation	Equal variances assumed	1.685	.196	-.604	135	.547
	Equal variances not assumed			-.615	129.954	.540
Use of Computers	Equal variances assumed	2.441	.121	-.445	135	.657
	Equal variances not assumed			-.456	132.019	.649
User Problems	Equal variances assumed	.471	.494	.237	135	.813
	Equal variances not assumed			.241	129.171	.810

From the analysis of table 11, Independent Samples Test, the p-value of none of the variables is equal to or below 0.05. All the variables have respective p-values .547, .657, and .813, far greater than 0.05. Thus, the hypothesis is rejected due to no support of any of the variables.

H_7. Respondents with '1-10' years of experience score higher.

Table 12
Group Mean Differences (Experience)

Group Statistics

	Experience	n	Mean	Std. Deviation	Std. Error Mean
User Participation	1-10	93	3.6550	.61906	.06419
	11 & above	44	3.1458	.77637	.11704
Use of Computers	1-10	93	3.0699	.50256	.05211
	11 & above	44	2.8136	.49160	.07411
User Problems	1-10	93	2.7599	.72063	.07473
	11 & above	44	2.9716	.76333	.11508

Independent Samples Test

		F	Sig.	t	df	Sig. (2-tailed)
User Participation	Equal variances assumed	5.769	.018	4.134	135	.000
	Equal variances not assumed			3.814	69.809	.000
Use of Computers	Equal variances assumed	.006	.938	2.806	135	.006
	Equal variances not assumed			2.828	86.186	.006
User Problems	Equal variances assumed	.279	.598	-1.575	135	.117
	Equal variances not assumed			-1.543	80.240	.127

From the analysis of table 12, Independent Samples Test, the p-value of only two variables, i.e., User participation, and Use of computers is below 0.05 (.000, and .000respectively). Whereas the 'User problems' has p-value greater than 0.05 (117). Thus, the hypothesis is partially supported by only two variables.

Discussion

Insurgency of IT is witnessed by the world today. This change has affected every aspect of people's life at this point, including banking. Different changes and advancements in IT have greatly affected the future of banking, quality of services, and their competitiveness in the markets worldwide. This leads banks into spending more and more in the field of information technology to attract a big number of clients and to get bigger profits (Hamzaee & Hughs, 2006; Siam, 2006; Pasquet *et al*., 2008). The advent and rise of the Internet and e-commerce has introduced new ways of business for financial institutions (Adesina & Ayo, 2010). Online banking is, in many ways, different from conventional banking. One of the primary differences is that EBanking enables customers to directly access the information system of a bank wherever the Internet is available, whereas in conventional banking system, the customers have to have a connection with a bank's employees to access the bank's IS (Sadeghi & Farokhian, 2011). Developed nations are gaining benefits whereas developing nations are still in the process of digitization and that is due to technological gaps in the field of IT between the developing and the developed nations. Developed nations are utilizing the latest technologies, whereas the developing nations are far behind in the e-banking race, for the most part owing to the technological underdevelopment (Kundi & Shah, 2009). The study shows that e-banking can tremendously lessen the operating expenses of banks and help in providing quick, easy and secure e-services to the clients even in the least developed countries (Yang & Ahmed, 2009). E-banking leads to improved control on financial and technological resources. Likewise, decentralized personal relationship between banks and their clients is the most important factor for the success of e banking. Therefore, standardization, incorporation, and utilization of IS based improvements are becoming the main issues in the long-term strategies of banks (Kuppusamy *et al*., 2009). This research is aimed to identify and study the factors determining the prospects of eBanking in Dera Ismail Khan, KPK,

Pakistan. The significance of user participation in the development and use of eLearning is the main route to contextualizing the new technologies. When users are not heard, the developers mostly embed their self-conceived user-perceptions into the system, which then appear incompatible with the real user-demands. Lack of user participation at the development level reduces the chances of system's ownership by the users. System ownership requires 'user-empowerment' in terms of deciding about the structure and contents of new system, for example, if system matches with the 'learner's learning-style' and 'teacher's teaching mindset,' the chances of success are obvious. Thus, in the context of eLearning projects, "user empowerment is the granting of unprecedented decision-making powers to the primary agents in education—teachers and students (Shimabukuro, 2005). For this purpose, Colleen Reilly (2005) suggests the appointment of a 'Role Models from the User-groups' who will work as disciplinary insiders or faculty peers in their home departments and motivate their colleagues through discourse on the advantages of ICTs for users. The researcher further argues that the technical experts of ICTs extend mostly ICT-training however, "faculty members who use technologies may actually have a better grasp of the best applications in their own disciplines." The new trends in technology-integration in education are to create such digital environments, which are created to generate intellectual partnerships between the teachers and learners (Young, 2003). The sustainable partnerships within the universities help in overcoming the feelings of digital divide among the university constituents including students, faculty, academic computing staff, and administrators and to explore diverse and effective uses of ICTs (Kopyc, 2007). Similarly, educational partnerships with foreign institutions for offering joint courses, adopting joint curricula or any other joint educational arrangements can help create broader level participation of users across the boarders in understanding and using new systems (Hussain, 2007).

UNESCO proposes ICT-diffusion strategies to its member states, which are to create an education system, which is based on your social and cultural realities; make it accessible to all; replace the traditional rigid and culturally alienating education models with flexible, more diversified, and universally affordable systems based on ICTs (Sanyal, 2001). The research reveals that those HEIs, which opted for leading-edge technologies hardly achieve long-term objectives from the system. It is better to experiment with tested digital gadgets (Tinio, 2002). Similarly, Tran *et a*l., (2005) have found that system costs scale-up during the development process, which endangers the systems sustainability, therefore researchers suggest that there is need "to design a technology-based model within the context of the existing support and resource infrastructures." Furthermore, the eLearning projects should not be founded only on technical considerations rather "developed by taking into account the social, cultural, political and economic context (Macleod, 2005)." For example, teachers need that type of training, which enables them for technology integration in their curriculum and replicated in the classrooms and not the training, which simply trains them is using some software applications (Willis, 2006). There is need to develop a contextualized model of training in which individual-differences are addressed because 'corporate training model' is no more workable as well as the existing traditional training models are incapable to effectively integrate the technology innovations into higher education (Kopyc, 2007). In nutshell, the development and implementation of an organizational strategy is "a comprehensive and ongoing management process and … effective strategies are those that promote a superior alignment between the organization and its environment and the achievement of strategic goals (Griffin, 2002: 200)." Therefore, an eLearning project must be sustainable in technical, economic, political, and social terms. Sustainability is the acceptance (ownership) of the system by users. Political sustainability is the issue of policy and leadership, and it forms the biggest threat to ICT- projects in the shape of resistance to change. If, for instance, teachers refuse to use ICTs in their classrooms, then even the instrumental use of ICTs is not possible, let alone the substantive and integrative use. Economic sustainability is the ability to finance the project and linked closely to social and political sustainability. Technological sustainability refers to the selection of those technologies that will be effective over the long term (Tinio, 2002; Nawaz & Kundi, 2006). The Oxford Dictionary defines collaboration as 'work together' and 'cooperate with the enemy.' The second meaning is striking and demanding. Collaboration in the development of eLearning environments refers to the cooperation between the developers and users during the user-needs analysis, design, development, implementation, and user training. Even though they hail from different backgrounds with reference to ICTs, they have to collaborate by creating mutual understanding in the development and execution practices of eLearning in HEIs. Furthermore, there are many similarities in the ways of implementing, operating and using the ICT

at different universities; therefore, there is a rationale for cooperation in the ICT issues among universities (Vrana, 2007).

ICTs can enable developing countries to expand access to and raise the quality of education, but it requires careful consideration of the interacting issues of policy and politics, infrastructure development, human capacity, culture, curriculum, and pedagogy (Tinio, 2002). Corporate training model does not work, and the university's model of past traditions does not easily and effectively accommodate the integration of technology innovations. Certainly, a need to get everyone talking to each other—academic computing staff, faculty, and administrators—is the first crucial step in the development of new education models (Kopyc, 2007). Similarly, unless other simultaneous innovations in pedagogy, curriculum, assessment, and institute's organization are coupled to the usage of instructional technology, the time and effort expended on implementing these devices produces few improvements in educational outcomes - and reinforces many educators' cynicism about fads based on magical machines (Mehra & Mital, 2007).

Conclusion

E-Learning offers complete information technology support to these innovations (Dinevski & Kokol, 2005) in teaching and learning. Similarly, as explained across the thesis that ICTs are different from all the so far introduced technologies in the sense that they are integrative in their nature. For example, TV, Telephone, Fax technologies did not connect with each other until the computer and networking sciences came out. Today one can telephone, send a message in multimedia, fax or watch a movie all through a single PC on a network. However, the key element in all of this is not access to infrastructure (bridging the hardware-divide) only rather the access should help users in getting knowledge, skills, and consistent support of organizational structures to achieve social and community objectives (Macleod, 2005; Ågerfalk *et al.*, 2006). Gray *et al*., (2003) report, after studying a group of universities running successful eLearning projects that "the success of the project was often dependent on the skills and quality of technical support provided to end-users." Similarly, researchers suggest that the university constituents "need to get technical and human resource support for continuous technology integration after the training (Zhao & LeAnna Bryant, 2006)." This support includes the technical-infrastructure manned with technical talent such as network managers, web administrators, security specialists etc., but universities are facing challenges in preparing IT-workers for new digital environments (Ezziane, 2007; Kundi *et al*., 2010).

The gap between user and ICTs is possible if user training is not undertaken effectively. Almost every research recording the perceptions and attitudes of eLearning-users reports dissatisfaction from the training facilities, contents, and duration with regard to eLearning tools for teaching, learning and administrative purposes. Some 18 years ago that "as community expectations for integration of information technology into the daily practices of teaching grow, it will become increasingly important that all teachers are adequately prepared for this dimension of their professional practice." User training includes the training of both the developers or ICT professionals and non-ICT users. Both the groups need computer literacy of the levels of their requirements. "A large body of literature supports the idea that technology training is the major factor that could help teachers develop positive attitudes toward technology and integrating technology into curriculum. Teachers need training for technology-integration "in curriculum areas that can be replicated in their own classrooms not training that focuses on software applications and skill development. The developers need such a 'computing-curriculum', which covers not only the technological aspects of computer hardware and software but also the human and organizational dimensions of these tools when placed in use. On the one hand the computing curricula of the developing countries is borrowed, which mismatches the local market requirements and on the other hand, courses, contents, and frequency of training for the non-ICT users are not taken up seriously. The respondents have disclosed problems with the incompatibility of training practices with what they require to command the digital machines. Similarly, most of the training is instrumental in nature, which creates no or little interest among the users. If training is conceived of substantive contents to inspire users for the integration of these new tools into the core functions of teaching, learning and administration instead of using computers just like any other technology. Change of perceptions and attitudes to eLearning depends on the type and quality of training extended to the users. Most of the respondents in global experiences and empirical study of HEIs in KPK complain

about the poor training or even the existence of any quality training. Lack of training is also evident from their low scores on their perceptions and attitudes about the hardware and software, showing that they know little about the eLearning tools themselves then use problems is indispensable. According to the results:

1. User participation is positively and significantly associated with the use of computers. Similarly, the User participation is negatively and significantly associated with the user problems.
2. User participation has a significant effect on the 'use of computers. The Beta value of user participation 0.451 (see table 4.7) supports the relationship of user participation with the use of computers.
3. User participation has a significant effect on the 'user Problems'. The Beta value of user participation -0.675 (see table 4.8) supports the negative relationship of user participation with the user problems.
4. Respondents form the public sector score higher than the private sector in all the three variables i.e., user participation, use of computers, and user problems.
5. Respondents with post-graduate qualification score higher than under-graduate respondents only in the case of user problems.
6. The statement 'non-managers score higher than the managers' is not supported by any of the variable.
7. Respondents with '1-10' years of experience score higher than others are supported by only two variables, i.e., user participation, and use of computers, however, in the case of 'user problems' the same is not true.

Significance of the Study

The use of computers is one of the issue confronting those who are working in different organizations of the country. Effective use of computers in the work environment depends on the motivation and interest of users so research on how to convince the users is indispensable. Research says that computerization is less technical and more human and social issue thus exploration of social issues is obviously helpful for getting the best from the new technologies. Understanding the user problems and finding their appropriate solutions is the key to resolving computerization issues and increasing their role in organizational performance. Users are the major stakeholders therefore accommodating their preferences and concerns in the computerization are unavoidable in any e-project.

Limitations and Future Research Directions

The current study gives a snapshot of online banking usage in a particular city. The future research can replicate the same study with same samples in different city to further understand the change of causal linkage between factors and can examine its influence on intention to continue online banking services. The current study can be further extend by classifying the samples as gender based on their online banking experience and to examine the change in intention to continue with online banking services. Factors that affect intention to continue online banking services that are considered important in one culture might be less important in another culture. Hence, future research could apply the same research framework by incorporating cultural factors in other countries to get broader perspective.

Recommedndations

Support of High-Ups

Researchers have identified 'support of top-management' as a critical factor in the success or failure of CBIS project. On the top is the support of government, but after government takes interest, the commitment, and involvement of the top management within every institution makes the difference. Victoria L. Tinio (2002) asserts that the role of top management is central in the integration of ICTs in education because many teacher or student-initiated eLearning projects have failed due to the lack of support from the above. Furthermore, for a sustainable development, administrators must learn using technology as well as understand the "technical, curricular, administrative, financial, and social dimensions of ICT use in education." While giving bad report on the 'Sector Assistance Program Evaluation for the Social Sectors in Pakistan' Asian Development Bank writes that the main reason for

this underperformance is that "much of the time there was insufficient political or bureaucratic support for stated policies, at least by those allocating financial resources and with the power to influence outcomes (ADB, 2005)." Thus, what ensures the successful implementation of a strategic plan for educational technology is the "assurance of support from the senior administrative level (Stockley, 2004)" such as, government from outside and top executives from within the HEIs.

Infrastructural Requirements for Digital Platforms

As discussed in the section on 'Educational technologies', it is not the provision of computers only which creates an eLearning environment rather 'Networking' lies at the core of modern digital learning systems. Everything happens through computers BUT on networks. Stand-alone systems are no longer common, not in the sense that they are not usable or not used but now they are playing back-office roles. The provision of a robust ICT-based infrastructure is challenging in the sense that it is not a one-time activity. It is not like that; the technical resources are purchased once and for all. Computer-technologies are rapidly changing, which require 'Updates' by the institutions otherwise they will lag fellow and competitive institutes in technological sophistication. Therefore, creation, maintenance and updating of technical infrastructure is a process which continues forever. Furthermore, while developing and/or updating, most of the HEIs opt for cutting-edge technologies however, experience shows that mostly these 'leading-edge technologies turn into bleeding-edge technologies' by eating up budgets and delivering nothing special. Therefore, researchers suggest that "go with tried and tested systems (Tinio, 2002)." At the same time, latest digital options are expensive while, "the time is right for collaborative action because the time is wrong for any approach other than cost-sensitive, resource-smart deployments (Klonoski, 2005)." Effective technical support also means that users are not only trained in using technologies but also continuously updated about the user and possibilities created by these gadgets (Kopyc, 2007).

Participative CBIS

The Oxford Dictionary defines collaboration as 'work together' and 'cooperate with the enemy.' The second meaning is striking and demanding. Collaboration in the development of eLearning environments refers to the cooperation between the developers and users during the user-needs analysis, design, development, implementation, and user training. Even though they hail from different backgrounds with reference to ICTs, they have to collaborate by creating mutual understanding in the development and execution practices of eLearning in HEIs. Furthermore, there are many similarities in the ways of implementing, operating, and using the ICT at different universities; therefore, there is a rationale for cooperation in the ICT issues among universities (Vrana, 2007). ICTs can enable developing countries to expand access to and raise the quality of education, but it requires careful consideration of the interacting issues of policy and politics, infrastructure development, human capacity, culture, curriculum, and pedagogy (Tinio, 2002). Corporate training model does not work, and the university's model of past traditions does not easily and effectively accommodate the integration of technology innovations. Certainly, a need to get everyone talking to each other-academic computing staff, faculty, and administrators—is the first crucial step in the development of new education models (Kopyc, 2007). Similarly, unless other simultaneous innovations in pedagogy, curriculum, assessment, and institute's organization are coupled to the usage of instructional technology, the time and effort expended on implementing these devices produces few improvements in educational outcomes - and reinforces many educators' cynicism about fads based on magical machines (Mehra & Mital, 2007).

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Deceleration of Interest

The author declares that there is no clash of interest.

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