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Virtual Learning Environment for MUISTD and its Analysis

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Abstract: This is study is focused on the e-learning program at Mehran University Institute of Science, Technology and Development (MUISTD), Mehran University of Engineering and Technology, Jamshoro (Pakistan). In order to achieve research objectives, mix methodology was used. Data was collected through questionnaire, interview and observations and response was analyzed and presented in graphs to summarize the concept. Findings recognize the grave need of e-learning program.

Keywords: E-learning, ICT, education, distance education.

1. INTRODUCTION

Common practice of Information and Communication Technology (ICT) has influenced different types of business, new boost up in the economy has occurred due to the innovation and emerging technologies that facilitate the transaction through digital system (Lundvall and Johnson, 1994). Existences of the organizations rely upon the capacity to deal with the objectives and its way of dealing with the things (Malhotra, 2001).

Government programs and policies to boost up the application of ICT for good governance and to establish linkage with civil society are known as e-Government (Fang, 2002).

Developed countries have established a strong infrastructure of ICT to connect local events and activities with global network in order to increase the participation of everymen (Graham and Aurigi, 1997).

Developing countries should structure the policies and strategies to promote ICT, get maximum benefits in the context of socio-economic development. E-Government can play vital role to facilitate the interested stakeholders through the application of ICT (Mansell and Wehn, 1998).

There is a great interest of learning in Pakistan through social use of technology. Technical tools bridge the social and learning gaps among the peers. Virtual communication sparks the scope of diversity and social capacity (Tunio, *et. al.*, 2013)

Virtual network paves the way for learning from world literature and provides opportunities to explore new knowledge. Cellular communication makes possible the flow of ideas (Tunio, *et. al.*, 2013).

Besides learning, virtual network has provided opportunities of e-services to benefit the society. E-services include the sales and purchases of goods and services from the national and international market (Mahar, *et. al., 2013).*

ICT serves the noble cause of education and it is an emerging trend of learning in the globe. From the primary level, it helps in learning through animation and continues vital contribution in study through different approaches depending upon level of study (Tunio, *et. al.*, 2013).

RESEARCH OBJECTIVES:

1. To study the current trends in e-learning system in Pakistan
2. To examine the technologies which commonly are used in E-learning
3. To analyze the feasibility of e-learning Program at MUISTD.

2. MATERIAL AND METHOD

To achieve the objectives of this study, a comprehensive literature review was carried out in order to analyze the best E-learning at Maters level for a developing country like Pakistan. At the next stage a survey questionnaire was designed in order to get the views from the current and prosperous students who are registered in the different programs of MUISTD or are willing to peruse their studies at MUISTD. The results of the survey were then be analyzed by using the MS word and Excel where necessary.

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Mehran University being the development Engineering University of Pakistan as driving force to innovative educational program. So that requirements for building a viable e-learning strategy was measured through this research that how e-learning can change the nature of training Institutions, also knowledge management and other new forms of e-learning.

In this qualitative methodology, a detailed survey of the University students and interviews of the heads of the Departments were conducted in order to evaluate the information. Literature is reviewed to collect the data. In the quantitative methodology, analysis of the results was conducted.

Furthermore, for the purpose of data collection, a questionnaire was distributed among the 40 students of different disciplines and their response was collected and then analyzed through MS Excel.

Target group of the students was randomly selected from those students who have qualified from the MUISTD, under study at MUISTD and expected or willing to study at MUISTD.

It was an early purpose to survey the students about the knowledge of e-Learning. For this reason, a questionnaire was designed to collect the information about the basics of e-learning and Information and communication technology. After a verbal knowledge sharing, a practical approach was followed for the students to get in touch with question-answer section to express their interest on e-learning and application. Short interviews were conducted from the following heads of Departments to extract the information:

4. RESULTS ANDDISCUSSION

4.1 Participant's Description:

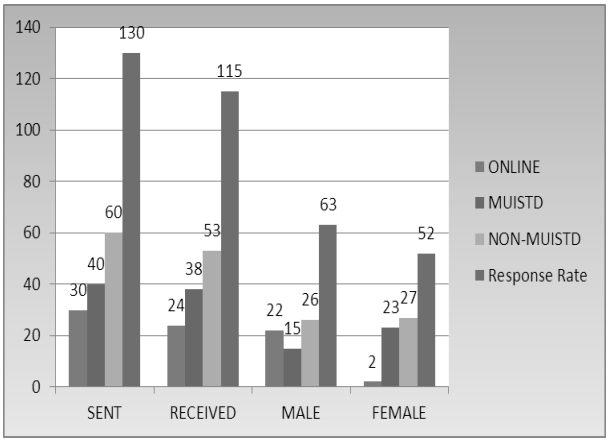


Figure 1: Graph shows the description of the responses of the respondants

Questionnaire was designed containing respondents information consisting of 34 Questions sent to various students of MUISTD and Non-MUISTDians from Institute of Business Administration, Department of Public Administration, University of Sindh Jamshoro as well as Hyderabad Institute of Arts, Science and Technology, Hyderabad who could be the prospect students of MUISTD, the questionnaire was also sent through Internet to the prospects students and professionals who are wish to pursue their higher Education 130 questionnaires were distributed as well as sent through E-mail with the Bread of 40 questionnaires among the students of MUISTD and 60 to various disciplines of Non-MUISTDians and 30 Questionnaire were sent through Email. The response rate was highly commendable The students of MUISTD has given 95% response amongst (male students were 37.5% and Females 57.5%), Non-MUISTDians have given 88% response (male respondents were 43% and Females 45%) and similarly the response through Email (Online) was also 80% overall from which 73% were the male and only 07% respondents from female side.

4.2 Divide By Discipline:

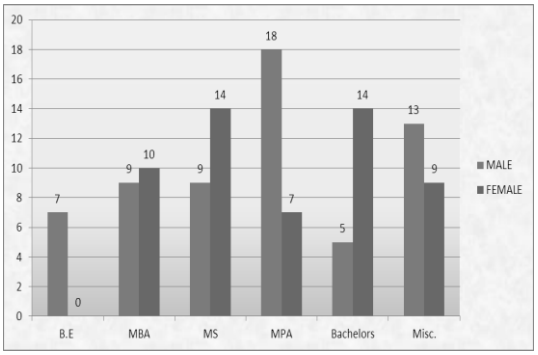


Figure 2: This describes the affiliation of respondents and ratio by the gender.

The Education of respondents were recorded among the 115 respondents who were studying in MUISTD as well as in Institute of Business Administration, Department of Public Administration, University of Sindh Jamshoro as well as Hyderabad Institute of Arts, Science and Technology, Hyderabad. It was observed that the in B.E degree was possessed by only male respondents, whereas in MBA there was 9 male and 10 females similarly in MS degree course there was 9 male and 14 female, the respondents were studying in MPA (Final) University of Sindh were 18 male and 7 females, the respondents having Bachelor degree in various discipline among 5 male and 14 female, the 22 respondents including 13 male and 9 female were having degrees in different discipline such as Pharm-D, MBBS, M.Com including Ph.D students.

4.3 Status Of The Participants:

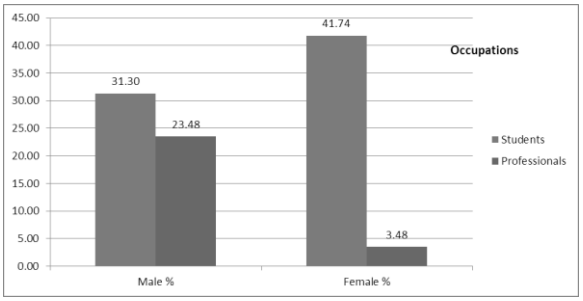


Figure 3: This describes the status of the respondents either students or employee.

The Questionnaire were distributed as well sent to different respondents consisting of Male female students as well as professionals, among them 31.30% were the male respondents who were student and 41.74% were the professionals working in different positions of Administration and Teaching. So far as females are concern 23.48% of them were students and only 3.48 were in working in various positions.

4.4 Analysis Of The Responses Of Participants:

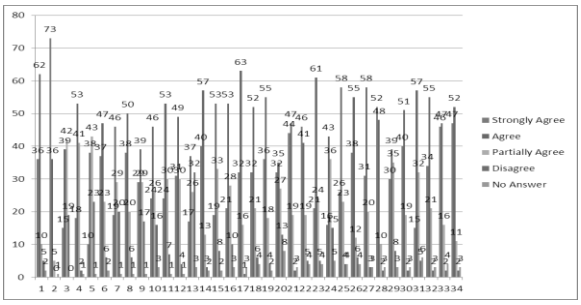


Figure 4: This describes the response of the correspondents to the questionnaire.

Analysis determines wide variation in each question from one participant to other participant. Result shows that concept of e-learning program already existed in the knowledge of the participants and therefore they want to continue higher education with the shift from traditional learning method to e-learning method, but some of the students find online learning method very difficult due to limited access of the computer and interne at personal level. Globally, standard of education is increased due to online learning, hence, its need of the hour all around the world to adopt the online learning method to meet with the challenges in education system. As online learning may be bit difficult at secondary class but it is mandatory at higher education level. Here at Mehran University Institute of Science, Technology and Development (MUISTD) mostly professionals will be benefited by this program. MUISTD has already foreign qualified faculty that can thrive the knowledge through online education as by this way, MUISTD will foster change in education and will create new avenues of learning in the region. Besides education, MUISTD will establish the linkage with the industry to share research and experience.

4.5 Virtual Learning Environments (Vle) Use In The Uk:

Universities and Colleges Information Systems Association (UCISA) represents the HEI Information and Computing Departments, its primary aim is "…to promote excellence in the application of information systems and services in support of teaching, learning, research and administration in higher and further education."

The UCISA conducted a survey on VLE usage in 2001 and a follow up survey in 2003. The change in the distribution of preferred CMS in the samples is important to note.

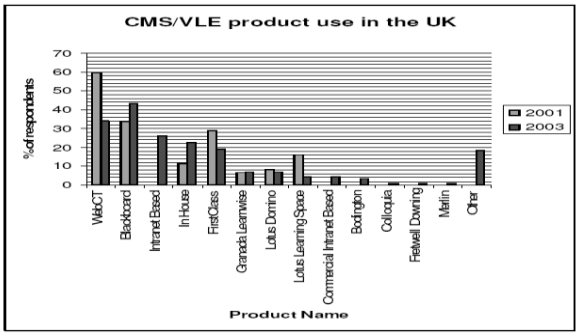


Figure 5: This describes this virtual learning environment in UK in 2001 and 2003.

The UCISA report highlights that the number of returns in 2003 are higher and that the change in trend to Blackboard is made of up mainly 'new' Universities adopting the platform for teaching whereas they note that many of the older Institutions are using WebCT.

For summary details of use refer to 'Appendix A: Summary of CMS use in UK HEI'. The following information is important to note about this graph:

The CMS product market in the UK has two clear market leaders; i.e. WebCT and Blackboard. (each used by over 30% of HEI in both 2001 and 2003 surveys)

- A second group of commercially competitive products are also distinct; i.e. First Class, Granada Learnwise, Lotus Domino and Learning Space
- A third group of free and/or Open Source CMS is also distinct; i.e. Bodington and Colloquia
- A fourth group of unspecified/other CMS is indicated by 'other' responses.
- A fifth group of customised VLE users is also distinguished; This includes 'Intranet based' and 'In house' responses.

4.6. Virtual Learning Environments (Vle) Use In The Usa:

Collated from a Market Data Retrieval report; based on a sample of nearly 1,500 US Colleges and Education establishments. 94% of respondents reported that they use one or more CMS. Of these;

Fig. 13.2: VLE use US

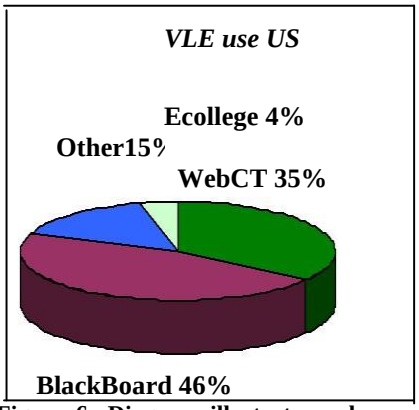


Figure 6: Diagram illustrates only results from colleges using a single CMS.
Source: Market Data Retrieval survey, 2003

4.7 Virtual Learning Environments (Vle) Use In The Netherlands:

VLE use in the Netherlands

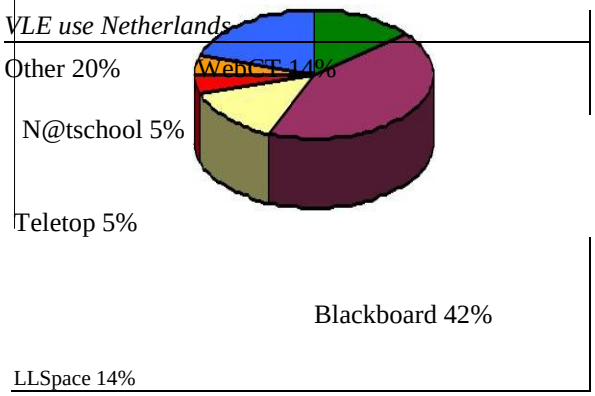


Figure 7 Source: Surf[3] surv

NOTE: SURF is the Dutch higher education and research partnership organization for network services and information and communications technology (ICT). It is the equivalent of the JISC in the UK.

These alternative surveys provide evidence of other CMS products within respective markets but essentially corroborate with the UCISA survey regarding the market leading products.

5. CONCLUSION

It is concluded that the importance of e-learning is recognized by every educationist and educational institute. Emergence of e-learning from secondary education to higher education is critically important. Finding suggest that students and faculty members want to get rid of the traditional method of learning and are strongly willing to adopt technology-aided methods of learning which facilitates by different means. E-learning is equally important for the rural as well as urban areas but distant areas can be more benefited. In order to launch successful e-learning program at Mehran University Institute of Science, Technology and Development (MUISTD), it needs IT infrastructure, capacity and awareness in the region and consistence in a significant way.

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