CASE STUDY

A CASE STUDY TO UNDERSTAND THE BEHAVIORAL ISSUES AFFECTING E-LEARNING WITH REFERENCE TO IHL, SULTANATE OF OMAN

By

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ABSTRACT

IHL, a leading institute offering higher education in the Sultanate of Oman is on the cusp of translating from an organization with conventional modes of teaching-learning to those of the modern day practices notably electronic learning. The challenges posed in the implementation of an environment conducive to electronic learning and its different forms and manifestations would only be inculcated if the real opportunities are understood by all the major stakeholders. The paper highlights the major findings gathered through primary and secondary data, which in turn would provide an opportunity to debate on the pros and cons of electronic learning from that of IHL's perspective. The findings revealed that the learner's are already familiar with internet as an effective tool for learning, its only that the direction is to be channeled commensurate with the requirements so as to create an environment where e-learning is acknowledged, implemented and monitored by one and all.

Keywords: E-Learning, Institute of Higher Learning (IHL), Factors, Teaching and Learning.

INTRODUCTION

Teaching-Learning profession has undergone a tremendous metamorphosis. Conventional techniques of yesteryears have either got a face-lift or have been supplemented with innovative techniques ridding piggy on state-of-the-art technologies. It is therefore paramount for all the stakeholders to understand the changes taking place in the background and align the strategies accordingly. Electronic learning (e-Learning) is taking center-stage owing to its multiple benefits like time, cost, learner centered learning, self paced learning to mention a few. Information centric society has never felt the need for knowledge more than the modern era. The driver for incremental growth of knowledge disseminators has to be given the novel technologies which has brought to the fore many new delivery mechanisms which wasn't even contemplated a decade or two back. e-Learning is here to stay and would only spread its tentacles in different forms, manifestations, territories and so its critical for all concerned to understand the factors affecting the challenges and opportunities in e-Learning.

Organizational Profile

Institute of Higher Learning (IHL) is one of the leading higher education service providers in the Sultanate of Oman. Administered, funded and managed by one of the experienced ministry of the Sultanate, IHL is always plush with funds, manpower and support of all kind from the owner, which aspires to offer the citizens quality higher education in Business, Engineering, Foundation Studies and Information Technology so as to groom ethical and responsible professionals for tomorrow. Educational Technology Center (ETC) is the major support function facilitating in the technology and non-technical assistance required for smooth operation of IHL. IHL has a mixed blend of staff profile, comprising of nationals, expatriates roped in from different parts of the globe, not to forget the right mix of gender as well. The diversity quotient in all regards for IHL is truly amazing and with the availability of resources, implementing e-Learning should be easy, but for the routine factors which affect implementation of technologies in organizations of all stature, across industries.

The Table 1 would provide a snap-shot of the approximate strength of the students and staff encompassing various departments, along with the major roles extended in line with the vision and mission of IHL.

Department	Offering	Student Strength (Approx)	Staff Strength (Approx)	Role of Technology in the department
Business Studies	Diploma, Advanced Diploma in Business domain, including Human resources, Accounting and E-Business.	200	37	Passive facilitation with active supporting role in performing practical activities and course delivery.
Engineering	Diploma, Advanced Diploma in Engineering disciplines like Mechanical, Electrical, Civil, and Architecture.	400	63	Active facilitation with active supporting role in performing practical activities, notably the laboratory exercises.
Foundation Studies	Foundation studies in English Language, IT and Mathematics.	500	55	Passive facilitation in learning and technology acting as an enabler and support function.
Information Technology	Diploma, Advanced Diploma in Information Technology with specialization in Hardware, Software, Networking, Database Management to name a few.	300	40	Active facilitation and learning with technology as the backbone.
Educational Technology Center	Support function to the aforesaid major academic departments.	All students get directly and indirectly benefited from their job	65	Technology as the major tool for all their activities carried out to support the academic departments.

Table 1. Snapshot of Departments, Strengths and their Offerings

The hierarchical set-up as depicted in Table 1 of IHL resembles that of any other academic institute of higher learning with the Director heading the organization. Three assistant deans, looking into academic affairs, student affairs, administration, financial and human resources assist the top official in managing the organization with Head of Departments, Head of Sections, Lecturers and Technicians controlling the departmental level matters. The technologies being discussed in the table above hover around computers, computer peripherals, internet, intranet, in-house e-Learning and conventional resources, etc.

Background Information

Knowledge sector players like IHL responsible for offering higher education to the Omani citizens ought to leverage developments in ICT (Information, Communication Technology) accelerated mainly due to the happenings pertaining to internet, web 2.0, e-Learning, mobile learning (m-Learning) commensurate with the resources present with the organization as well as those with the target segment (read students and staff), like smart phones, hand held devices, i-pads, tablets etc. Public sector being the major player in educating the masses of a country, along with declining revenues, there is an urgent need to embrace technologies to the hilt (Daniel 1997). The changing higher education landscape has brought in a new dimension in the teaching-learning relationship, which in turn is related to the technological evolutions (Mentis 2008). The offshoots emanating from the continuous technological breakthrough, be it the internet, unique learning delivery mechanism in the form of e-Learning, m-

learning, Social Networking Sites (SNS) have brought in a paradigm shift to higher education in general and teaching-learning in particular (Manishankar 2010). Studies on the higher education teachers in the UK suggested a marked difference in their responsibilities, professional behaviour in line with the explosive usage of Virtual Learning Environment (VLE) usages in colleges and universities (Greener 2008). Plain vanilla e-Learning, blended learning or a mix and match of different technology based learning leveraging technologies have taken some shape and momentum with the major stakeholders, i.e. learner and tutor, notwithstanding the difference in proportion from one institution to another, primarily due to behavioural, administrative issues. e-Learning in teaching would include anything from active and passive support to the tutors in a conventional set-up to that of disseminating knowledge sans geographies through technologies (Keller & Cernerud 2002). ICT have proven potential of reducing the costs involved in the higher education sector, not to forget the improved quality of education experienced while using ICT (Bates 1997). e-Learning is gradually forming the silent background for all teaching-learning mechanism, sometimes consciously but most of the time unconsciously in environment where technology enabled awareness is comparatively poor. To cite an example, internet search engines are commonly used by almost all students, teachers intermittently, research scholars without even realizing the fact that it is a technology enabled learning which wasn't a part of the teaching-learning strategy before internet saw the light of the day. Creating and extending the consciousness a few steps ahead would motivate the learner to use technology full throttle which

perhaps may also take care of the behavioral related barriers (Mani 2006). Teaching professionals who are open to novel ways of understanding and presenting their knowledge and subject are generally successfully in embracing new technology as part of their professional repertoire (Baylor and Ritchie 2002). e-Learning brings in more say for the learner as they decide on the input they want to get from every session, apart from the better understanding of the concepts, mainly due to the interactive nature (Landry 2006). e-learning and more so information technology has many perceived usefulness from the users point of view and that play a significant role in using technology as a teaching-learning too (Adams, Nelson 1992). Even health related information and services related usage behavior on internet was observed through a structural modeling approach which contributed substantially towards all the stakeholders (An, 2005). (Daniel, 1997) explained the rationale of universities and other institutes of higher learning needing technology strategies which included e-learning as well. Information technology happened to be the major tool for technology enabled learning and its perceived usage; usefulness and user's acceptance is quite important (Davis, 1989). Theory and research has significance in the implementation of new techniques especially in the teaching-learning domain. Belief, attitude intention and behavior form the core to introduction of theory to research (Fishbein, Ajza, 1975).

Major Factors Affecting E-learning

e-learning as a new teaching-learning tool has added significant value to the learning and development processes globally. Notwithstanding the benefits offered by e-learning there are several factors that are instrumental in affecting the e-learning set-up of an organization. Some of these factors are listed below-

• An organization culture that encourage the usage of technology as a major learning enabler.

• Staff who encourages blended learning more than the routine chalk and talk method.

• The ability of the major stakeholders to learn, unlearn and relearn as technology driven learning would have less shelf life and is prone to alterations.

• The learner necessarily has to have motivation for self paced learning which in turn depends on the learning environment prevailing within the organization.

• Leveraging existing technologies used in the day to day lives like smart phones, PDA's to the hilt becomes a necessity.

• The culture of continuous learning which in turn makes the major stakeholders having a proactive 7x24x365 approach forms the backbone to e-learning.

E-Learning and IHL

IHL never had a resource constraint related drawback especially when the ministry is always prepared to gather resources which are globally acknowledged and beneficial in improving the quality of education being offered. Right from the computers, the software being installed therein, WiFi environs within the institution, classroom resources to the e-Learning resources in the form of MOODLE; the plate was always full for the teacher-learner duo to leverage the same in enhancing the quality of education. e-Learning is still in the infancy stage owing to various reasons. Some of those are directly related to the education model being followed, along with the segment being targeted, whereas some others are purely behavioral in nature. The full time program being offered to the day scholars and also to the residential scholars may not call for e-Learning owing to less complicated geographical issues, however, one can safely say, e-Learning as an effective teaching-learning tool can definitely raise the standard of education, which in turn would also affect the quality apart from providing cost advantage.

A study conducted with samples of tutors and learners representing the three teaching departments on various aspects of e-Learning provided the following insights-

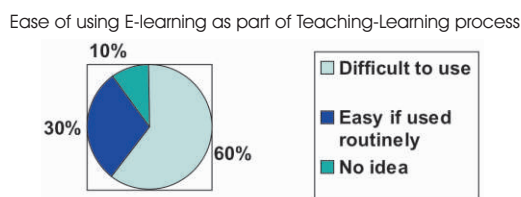The findings as depicted in Figure 1 explained the ease of

Ease of using E-learning as part of Teaching-Learning process

Figure 1. Percentages Presenting Ease of using E-learning as part of Teaching-Learning process at IHL

using e-Learning as part of the teaching-learning process. Sixty percent of the respondents opined that e-Learning is difficult to use, thirty percent thought e-Learning would be easy if used routinely and ten percent said they had no idea. This implied that e-Learning as a tool although being used intermittently was not a routine affair, owing to the perceived complexity in using/handling.

It is evident from the analysis in Figure 2 that a substantial 45% of the respondents felt E-Learning don't add any value in the teaching-learning process and only 35% opined in the affirmative. A good 20% doesn't have any idea, which may reflect that awareness level of e.Learning is poor.

The table presented in Figure 3 highlights an interesting aspect pertaining to the reasons for the lack of awareness level of e-learning amongst the tutor-learner duo. The factors starting from 1 to 13 considered are as follows- Lack of peer level awareness, Lack of need to use e-learning actively, absence of a culture to use e-learning as a tool, Lack of individual drive and motivation, lack of knowledge as a value adding teaching-learning tool, absence of internet penetration amongst all the students and tutors, lack of theoretical knowledge about e-learning, lack of practical knowledge about e-learning, absence of e-learning as a mandatory teaching-learning tool, e-learning as a costly tool, inability to blend e-learning with the regular

teaching-learning methods, lack of time to practice and use e-learning, not given adequate importance by both tutor-learner duo.

It is evident from Figure 4 that IHL administration has been successful in drilling into the students mind, that MOODLE is a tool meant for e-learning as evident from the finding, which pointed towards the fact e-learning is synonymous with MOODLE; the tool the college has and is being used by the teacher-learner duo. Moreover, the basic understanding of e-learning through computer and internet also explains their basic understanding of the subject.

E-Learning for the tutors threw interesting insights as evident from Figure 5, 40% considered it as a blended learning tool and rightly so, being a tutor of a full time program. 30% considered it as a technology enabled learning, 20% considered as a learning tool from the web and 10% saw it as a self learning tool for the learner.

Learners have a fair understanding as to why e-learning would be a success (Refer Figure 6) as they have realized the major causes and outcomes from e-learning in IHL. A
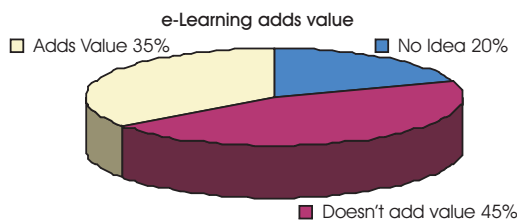

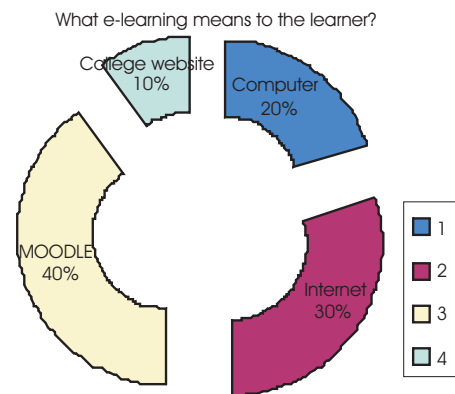Figure 2. Perception Whether E-learning Adds Value or Not

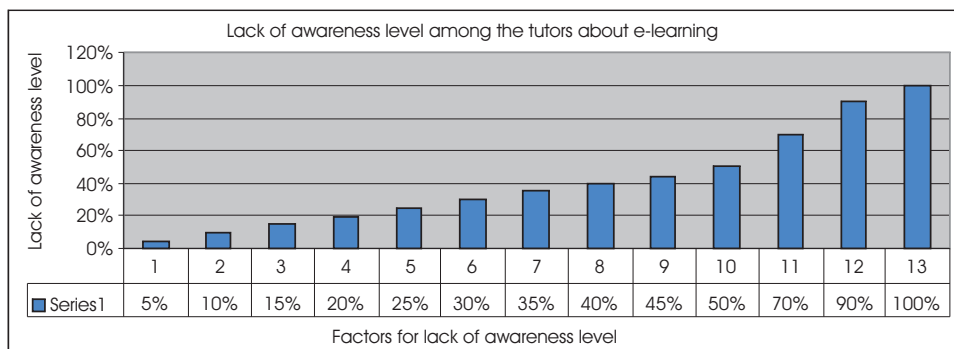Figure 4. What E-Learning Means to the Learner

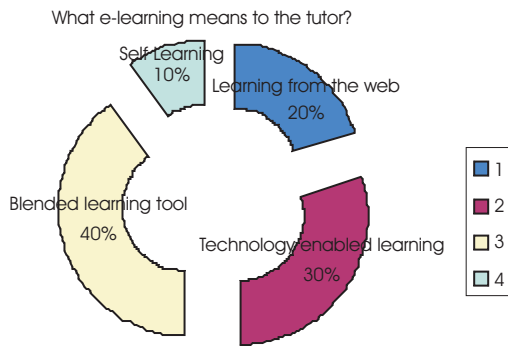Figure 3. Lack of Awareness Level Among the Tutors about E-Learning

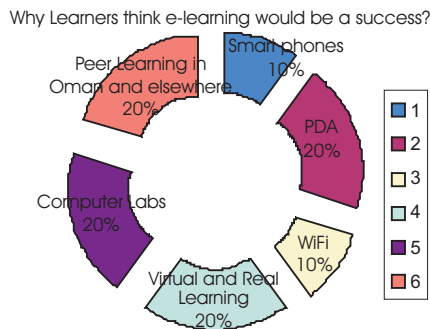Figure 5. What E-learning Means to the Tutor

Figure 6. Why Learners Think E-Learning Would be a Success

total of 80% reason for e-learning succeeding in IHL are the presence of resources like PDA, computer labs, peer learning locally and globally and virtual cum real learning. 20% of the respondents think that PDA and smart phones would drive e-learning usage.

From the analysis in Figure 7 it is clear that usage of e-learning as a tool fluctuates initially during a semester especially because MOODLE is in use, then dips owing to activities and midterm exams catching up and then stabilizing as the semester progresses as tutor uploads additional resources, which are being used by the learners.

Figure 8 shows interesting insights as to what the tutor feels would be the major challenges that has to be overcome in
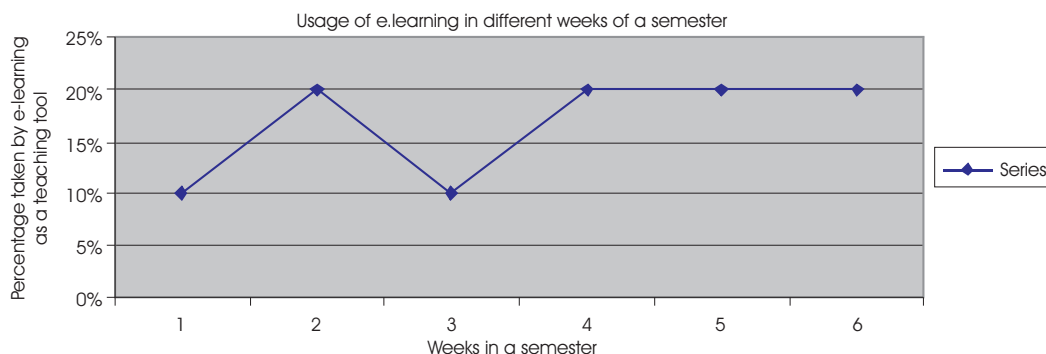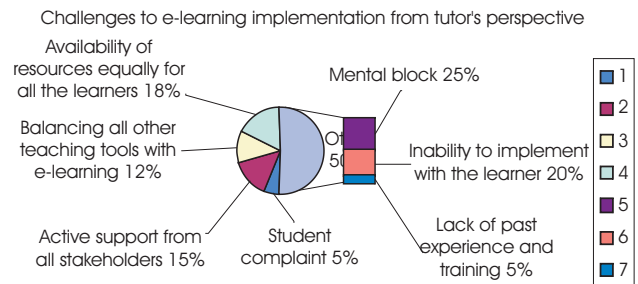

Figure 8. Challenges to E-learning Implementation from Tutors Perspective

order to implement e-learning as a composite teaching tool. Most of the findings revealed that it's more of a behaviorial issue rather than any other thing.

It is obvious that the learner use fair amount of time with the internet as is presented in Figure 9. Most common among them is facebook, the social networking tool, they are also habituated with the downloading of materials from the internet, hobby/interest related downloading, scanning news sites which are the ideal precursor for implementing e-learning and also leverage social networking tools for educational purposes.

Advantages of using e-learning in IHL

E-Learning as a teaching-learning tool cannot be used like it is done in organizations which rely only in this mode of learning. Moreover, as the institute offers a full time
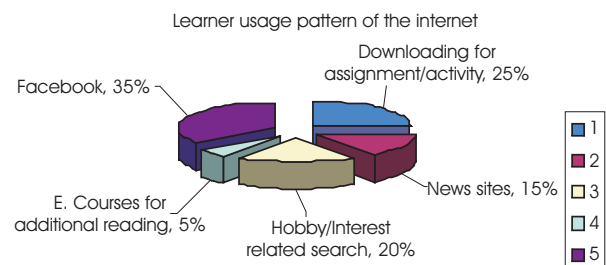

Figure 9. Learner Usage Pattern of Internet

Figure 7. Usage of E-Learning in Different Weeks of a Semester

program, e-Learning can only shape up as a supplementary tool, along with the routine classroom technique. The major advantages are listed below-

- E-learning can additionally allow the institute to back-up their daily tutoring, with a 24x7x365 support.

- E-learning can drastically reduce the cost involved in learning for IHL.

- Tutor-learner duo possessing gadgets like smart phones, laptops, hand held devices would enable to learn at their own pace and time.

- E-learning can allow the institute to offer additional academic programs targeting other segments like working executives and continuing educational support for their pass outs as an extended range of offerings.

- E-learning would enable the college administration to manage contingencies in light of sudden increase in input (read learner) or sudden increase in employee turnover, especially the teaching staff.

- Bi-lingual e-learning support in Arabic and English would value add in the overall learning potential of the learner.

- E-learning has the potential to virtually connect students, parents, teachers through various forums which can facilitate interaction commensurate with the need of the specific stakeholders.

SWOT Analysis for Implementing E-Learning at IHL

SWOT analysis offers an understanding of the strength and weakness along with opportunity and threat that in turn enables one to decipher the real position of the organization from an inside-out and outside-in perspective. The table below in Figure 10 provides a bird's eye view of the SWOT factors on the basis of different parameters which are pivotal for e-learning implementation at IHL. This information would assist the decision makers to consider various strengths and weaknesses in line with the opportunities and threats so as to implement e-learning in a full fledged manner.

Conclusion

IHL an institution of higher learning is mainly adopting the conventional chalk and talk method of teaching-learning. The tinge of electronic learning practices adopted in bits and pieces can be extended across the organization after overcoming the challenges posed owing to the existing set-up. The institutional regulators however, should guard from getting into a complete electronic mode from the

Parameters that would direct and indirect impact on e-learning implementation at IHL	Strengths	Weaknesses	Opportunities	Threats
Availability of resources	Plenty like WiFi, MOODLE, College website, Computer Lab, Broadband internet.	Need to have resources like a dedicated Learning Management System (LMS) for e-learning.	Opportunity to encourage holistic learning through e-learning.	From other alternative models of learning like Mobile learning.
Culture within the organization	IHL encourage a healthy learning culture, where learner-tutor duos are always in the lookout to learn.	E-Learning is yet to gather momentum.	As it's yet to be fully explored, e-learning has a lot of opportunities in IHL.	Threat may be posed from a culture which may harp more on the conventional methods, rather than the modern e-learning and other novel tools.
Motivation of the learner-tutor duo	IHL motivates the major stakeholders for achieving its mission and vision as evident from the performance.	E-Learning should be an active ingredient in those elements of motivation.	Learning motivation can be intertwined with e-learning so as to increase its usage.	Threat is from a dip in motivation to use e-learning as and when it's out of the main agenda of the administrators.
24x7x365 learning environment	E-learning would encourage round the clock learning, virtually and complement the classroom methodology.	Active blended learning as a tool needs to be encouraged.	It would provide learning round the clock apart from understanding easily through bi-lingual interface.	Threat would arise only when IHL would try to substitute blended learning into electronic mode as that would call in a change in the operating model of the institution.
Policies and regulations for e-learning implementation	Although there are strict regulations in place in line with the learning in general, it does not specify anything pertaining to different heads like e-learning.	Dedicated policies and regulations pertaining to e-learning implementation have to be set up and monitored.	Opportunity for the academic departments to work in unison with the education technology center to achieve the learning outcomes through different tools including e-learning.	Threat to staff that wouldn't be able to implement conventional mode of teaching with those of technology enabled one, including e-learning.

Figure 10. SWOT Analysis with Parameters having Impact of E-Learning Implementation at IHL

conventional set-up as that would not go well with the operating model. Blended learning would therefore hold the key in the environment prevailing at IHL by leveraging adequate resources available with the institute, and independently with the learner and the tutors.

Notes: The actual name of the organization and the characters depicted in the case study has been changed with fictitious ones.

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