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eLearning Attitudes in Botswana's Private Sector

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Abstract. The study investigated eLearning attitudes in Botswana's private sector. Selected companies in Gaborone, (Botswana) served as the unit of analysis. The study used a multi-pronged approach for data collection. The results show positive attitudes towards eLearning. However, current organizational policy did not accommodate training via eLearning. The results also suggest that eLearning counters threat of national and international private seizure of employee markets. All respondents agreed that integrating eLearning technologies in training would prepared better employees and increase access to education in a cost effective way. Respondents further alleged that eLearning created and supported new research opportunities, and that organizations required intellectual property rights policy. Most respondents reported readiness to implement eLearning, and suggested that eLearning would alleviate increasing administrative and training pressures. Finally, results show that eLearning would increase the success rate and quality of training, and that eLearning was not just a fad that would disappear shortly.

Keywords. Activity Theory, Change Laboratory Method, Competence, Developmental Work Research, eLearning, Intellectual property rights, Information Technology, multimedia, occupational skills, Private sector, Public-Private Partnerships, transformation, validity and Vocational orientation

1 Introduction

The potential of Information Technology (IT) to provide a solution to the educational supply problem has been recognized and many governments have invested heavily in promoting IT as a tool to lever educational output. As developed economies have looked to IT supported learning to bolster economic advantage, many less economically developed nations have looked towards the educational potential of IT as a means to renegotiate their role within the global division of labour and many have sought to develop eLearning strategies with varying levels of success (Selwyn, 2002).

In pursuit of these new advancements, Botswana sought to diversify its economy to reduce dependence on earnings from mineral exports, especially diamonds and copper-nickel. The emphasis being on private sector development and foreign investment for much needed managerial and technical expertise. Botswana has alleged that the nation's major resource is its people and that investment in their

education and training is a necessary condition of national development (Republic of Botswana, 1994). The application of technology would increasingly be important and that the workforce would need to be adaptable and receptive to change. Botswana's aspirations are enshrined in the Vision 2016 and *Maitlamo* Policies, and there is therefore need for research to guide these aspirations of Botswana becoming ...`an educated, productive, innovative and informed nation` (Republic of Botswana 1997 and 2005). The expansion of educational opportunity has also provided aspects of vocational and technical education which colonial education had neglected. The Commissions on Education (1977 and 1994) had reviewed the curriculum to this respect. Some suggestions put forward by the 1994 Commission on Education regarding how students would acquire knowledge of occupational opportunities, and the basic personal competencies and attitudes for entering employment and for being trained in occupational skills were:

- Vocational orientation of all subjects
- Inclusion of practical subjects
- Development of foundational skills
- Familiarization with the world of work, and
- Receiving careers guidance

A distinctive feature of vocational training provision in Botswana is the Brigades which are associated to Education with Production (EWP), and Training with Production (EWP). However, there also exists in Botswana and other developing countries, negative attitudes among both young and old people, associating vocational education as some second class education for less able students.

The significance of eLearning and knowledge management at the workplace cannot be overemphasized. With the rapid change in all types of working environments, especially in private sector where processes are technology driven, there is constant need for developing countries to rapidly train and retrain people in new technologies, products, and services found within the environment. Private sector companies in Botswana have recently opted to provide internet connectivity to selected educational institutions and this is a recipe for the emergence of Public-Private Partnerships (PPP's). This study has therefore sought to investigating eLearning attitudes in Botswana's private sector as this aspect has been identified as being an important attribute of eLearning (Nleya, 2009).

2 Purpose and Limitations of Study

The study solicited critical information regarding eLearning attitudes in Botswana's private sector training. The findings are intended to guide the planned growth of eLearning initiatives in the private sector, provide benchmarks from developed countries; and thus integrating them with the curricular function of tertiary institutions and other levels of the educational system as main producers of the human resources in the country.

One limitation of the study was to only target selected private sector companies in Gaborone due to funding and distance. Secondly, the lacking evidence that research in

eLearning attitudes in the private sector was ever conducted in the Southern African region, thus comparisons of the study findings being based on studies conducted abroad. The study was therefore limited to exploring the research questions; what is the nature of eLearning attitudes in Botswana's private sector; and what are lessons learnt from developed countries?

3 Theoretical Framework of Study

The trend of using eLearning as some learning and/or teaching tool is rapidly expanding into education and training. Shu-Sheng Liao et al (2007) reported that although eLearning environments are popular, there is minimal research on instructors' and learners' attitudes toward such learning environments. They studied attitudes of instructors' (30) and learners' (168), toward eLearning usage. The results demonstrated that instructors had very positive perceptions toward using eLearning as a teaching assisted tool. Furthermore, behavioral intention to use eLearning was influenced by perceived usefulness and self-efficacy. Learners' attitudes, self-paced, teacher-led, and multimedia instruction were major factors affecting learners' attitudes toward eLearning. The research also proposed guidelines for developing eLearning environments.

A United Kingdom (UK) survey reported that the majority of eLearning occurs at the work place, although nearly a third did most of their eLearning in the comforts of their homes. The Web was the most preferred means for people to do their eLearning; however, directed learning methods such as packaged courses in CD-ROMs were also favored by a significant number of participants especially those working in the private sector. Involvement with eLearning tended to be work-related and on those required by employers. The survey found that facilities were in place for eLearning in most organizations. Almost all had computing facilities for employees to access eLearning materials, although this was limited.

Furthermore, eLearning providers, employers, and employees all believed that the main disadvantage of eLearning is that it is not sufficiently developed yet to be able to replace other forms of training. Other disadvantages include prohibitive development and setting-up costs, prohibitive cost of hardware as well as lack of knowledge about the possible opportunities available from eLearning (Attitudes to eLearning, 2000). Despite new eLearning developments in Botswana, the attitudes of private sector employees towards *eLearning* had not been investigated.

Another study conducted in Sweden concluded that Subject Matter Experts (SMEs) are a heterogeneous group and yet they also seem to have some common characteristics. A very strong characteristic is the need to see an immediate return on investment for them to invest in eLearning and/or IT. Another feature uniting SMEs was their regard to human relations as a portal to learning. However, there are also more differences between SMEs in Sweden than there are similarities. Obvious differences, which probably influence the way in which learning with IT is regarded, seem to be geographical location, sector, level of education of employees, the company's age, and age of the company's employees. The impact of these factors upon learning with IT has yet to be explored. Furthermore, the emphasis being placed

on the connection of learning/training of the SME with IT must be viewed as a part of the business. In relation to this, the question emerges of how the learning of the individual is related to the learning of the organization? Does competence development for individuals result in business development? (Katzeff Cecilia, 2004) E-Learning in SMEs in Sweden <http://www.navreme.net/downloads/Vol58-E-Learning.in.SMEs.in.Sweden.pdf> Retrieved 20/01/2010.

4 Research Methodology

Both qualitative and quantitative research methods, (interviews, seminar and questionnaire) were used to complement each other. Perceptions of private sector respondents were solicited to assess their attitudes regarding eLearning. The combination of methods was essential in that qualitative research plays a discovery role while quantitative plays a confirmatory role, and they thus complement each other (Cohen and Manion, 1994). Descriptive research used also affords to produce statistical information about phenomena that interest policy makers and educators, and the design is also less expensive (Borg, Gall, and Gall 1996).

4.1 Sampling

The unit of analysis was a sample of private sector companies in Gaborone (Botswana) as potential employers of graduates from tertiary institutions country-wide. Purposive sampling also referred to as judgmental sampling by Gay and Airasian (1996) was used. Forty (40) companies in Gaborone were selected using the Botswana Confederation of Commerce, Industry and Manpower (BOCCIM) Directory 2002 – 2003. The sample size was found to be adequate for the purpose. Borg, Gall and Gall (1996) stated that for surveys, there should be at least hundred (100) subjects. Complimentarily, Cohen and Manion (1994) purport that:

There is ...no clear cut answer, for the correct sample size depends upon the purpose of the study and the nature of the population under scrutiny...a sample size of thirty is held by many to be the minimum number if researchers plan to use some form of statistical analysis on their data (p. 90).

However, the return rate was twenty-three (23), and slightly lower than the required minimum. Descriptive statistics (frequencies) were used to provide a descriptive analysis of the data. The brief interviews held where aspects of eLearning were explored also provided complementary data used for triangulation purposes.

4.2 Instrumentation

The major instrument of the study was the questionnaire. The questionnaire categories were also used as a guide for conducting interviews. Questionnaires have advantages over interviews for collecting data. Borg et al (1996) state that “the cost of sampling respondents over a wide geographical area is lower and time required to collect the data typically is much less” (p. 289).

Focus group interviews according to May (1993), "provide qualitative depth by allowing interviewees to talk about the subject in terms of their frames of reference" (p. 94). Furthermore, Cohen and Manion (1994) state "...it is believed that in an interpersonal encounter, people are more likely to disclose aspects of themselves, their thoughts, their feelings and values than they would in a less human situation as respondents feel at ease" (p. 282). Regarding complementarily, May (1993) purports:

Group interviews constitute a valuable tool of investigation, allowing the researcher to focus upon group norms and dynamics around issues, which they wish to investigate (p. 94).

Seminar and questionnaire were therefore used to complement each other. A pre-data collection focus group seminar was conducted where few participants (4) attended. However, some brief interviews were held with the respondents either at the time of delivering or collecting the questionnaire instrument.

4.3 Validation and Reliability of Instruments

According to Borg et al (1996) "Validity is the appropriateness, meaningfulness and the specific inferences made from the instruments". (p. 290). The questionnaire was piloted on selected individuals for validation purposes. The instrument was validated on the basis of the statement of the content, construct, readability, clarity and precision of expression. It was also important to determine whether several rates could be used on the content with a high degree of consistency (reliability). Points of ambiguity in the content of the instruments were identified and clarified through the mini pilot conducted using selected individuals.

4.4 Data Collection Procedures and Analysis

The researchers sought verbal permission to use Information Technology (IT) departments in the selected private sector companies. Covering letters were also attached to the questionnaire instrument to serve as some formal request to private sector companies to respond to the questionnaire instrument. Thirty (30) questionnaires were distributed and twenty-three (23) questionnaires were collected for coding which constitute a seventy-seven percent (77%) return rate.

4.5 Data Analysis

The data were analyzed using the Statistical Package for Social Scientists (SPSS). Frequency counts were used as the major statistical data and brief interviews were also used to complement the quantitative data source in the exploratory study.

5 Results of Study

The results firstly, provide the demographic data and secondly detailed findings of the

research question that sought to investigate the eLearning attitudes in the Botswana private sector. The results are reported under selected headings.

5.1 Demographic Characteristics of Respondents

Almost half of the respondents forty-eight percent (48%) were between ages 26 and 35 years, while thirty-nine percent (39%) were between ages 36 and 45 years. Four percent (4%) were between the ages 46 and 55 years and nine percent (9%) were missing. The majority (70%) were male while only seventeen percent (17%) were female. Twenty-six percent (26%) had Masters and Post Graduate qualification, while fifty-seven percent (57%) had diploma and degree qualification. Only four percent (4%) had certificate qualification while thirteen (13%) was reported missing. Finally, the findings suggest that the majority of respondents were in the Information Technology management level of the sampled private sector companies and were better placed to provide the required professional judgment.

5.2 Results on Private Sector eLearning Attitudes

This part reports results on private sector attitudes on eLearning implementation and support as illustrated in table 1.

Table 1: Attitudes on eLearning Implementation and Support

Item	Response in percentage		
	Strongly agreed/agreed	Strongly disagreed/disagreed	Missing
I feel ready to implement eLearning into my training and work place	83	17	0
Need for reward/incentive program in organization before eLearning projects start	39	61	0
Lack of interest by- staff to use eLearning technologies for training	30	70	0
Availability of eLearning support system in organization	17	78	4
Trainer belief that eLearning is just a fad and will disappear after a short period	0	100	0

The findings show that most private sector respondents (83%) were ready to implement eLearning. However, thirty-nine percent (39%) felt the need for a reward/incentive program before the implementation while (61%) strongly

disagreed/disagreed. However, the study reported low confidence in the use of eLearning skills as their readiness levels were reported moderate to low (Nleya, 2009).

Only thirty percent (30%) strongly disagreed/disagreed that there was lack of interest among their staff to use eLearning technologies for training, while the majority (70%) strongly disagreed/disagreed. Finally, none of the trainers in the sample believed that eLearning was just a fad that would disappear after a short period. Table 2 provides results on attitudes regarding integration of eLearning in the private sector.

Table 2: Attitudes regarding Infusion/Integration of eLearning

Item	Response in percentage		
	Strongly agreed/agreed	Strongly disagreed/disagreed	Missing
Infusing eLearning technologies in training better prepare employees for society	100	0	0
eLearning increases access to education in Botswana in a cost effective way	100	0	0
Organization to develop policy on intellectual property rights to support eLearning	91	9	0
Adequate intellectual property rights to acknowledge joint ownership of projects	87	9	4
Organization to consider work created with eLearning technologies in staff evaluation	77	13	0
Current organizational policy does not accommodate training via eLearning for all staff	65	35	0
Trainer support for adopted training strategy in the use of ICTs by their organization	48	48	4
eLearning counters threat of national and international private seizure of employee markets	65	35	0

eLearning will create and support new research opportunities in organizations	96	4	0
eLearning will alleviate increasing administrative and training pressures on training	78	22	0

All respondents in the selected private sector companies not only strongly agreed/agreed that integrating eLearning technologies in training better prepared employees for society; but also that eLearning could increase access to education in a cost effective way. The majority (91%), reported the need to develop an intellectual property rights policy to support eLearning and eighty-seven percent (87%) preferred adequate intellectual property rights to acknowledge joint ownership of eLearning projects.

Furthermore, seventy-seven percent (77%) reported that organizations could consider work created with eLearning technologies in staff evaluation as some form of reward mechanism. About half (48%) were satisfied with trainer support for adopted training strategy in the use of IT by their organization while the other half disagreed. Sixty-five percent (65%) reported that eLearning counters threat of national and international private seizure of employee markets. A majority (96% and 78% respectively), reported that eLearning could not only create and support new research opportunities, but also alleviate increasing administrative and training costs.

6 Summary of Findings and Conclusion

The findings suggest positive attitudes towards eLearning in the private sector. Firstly, that current organizational policy does not accommodate training via eLearning, and also that eLearning counters threat of national and international private seizure of employee markets. Secondly, respondents agreed that integrating eLearning would not only prepare better employees for society, but also increase access to education in a cost effective way. eLearning would also create and support new research opportunities, and that organizations required a policy on intellectual property rights, and some consideration of eLearning products in conducting staff evaluation to support eLearning implementation. The findings also suggested that intellectual property rights policy should acknowledge joint ownership of projects. The study further reported private sector's readiness to implement eLearning in the work place and alleged that it would alleviate increasing administrative and training pressures on training. Finally, the majority of respondents reported that eLearning would increase the success rate and quality of training in their organizations and that eLearning was not just a fad that would eventually disappear with time.

However, the relative eLearning readiness level in Botswana's private sector were reported to be at their initial stages and that trainee requirements were still to be met

as organizations tended to continue using useful but archaic technologies for training (Nleya 2009).

7 Conclusion

The study concluded that despite minimal research conducted on eLearning environments, there is evidence that instructors and private sector organizations have positive attitudes toward using eLearning as a learning tool. The intention to use eLearning tended to be influenced by its perceived usefulness and self-efficacy. Lessons learnt from developed countries show that the majority of eLearning occurs at the workplace, although nearly most eLearners do most of their eLearning at their homes. However, to invest in eLearning and/or IT, requires an obvious business focus, and the provision of necessary policy guidelines to assist in developing effective eLearning environments. Research also identified several variables influencing the way learning with IT is regarded (i. e. geographical location, sector, level of education of employees, company's age, and age of the company's employees). Their impact upon learning with IT has yet to be explored. A major disadvantage of eLearning has been associated with its being not sufficiently developed to replace other forms of training; and also the prohibitive development and setting-up costs; cost of hardware as well as the lack of knowledge about possible opportunities available.

Munro (2010) has cautioned that Information Technology in education is being explored and assessed and woven into the fabric of education. Developing and integrating IT in education is expensive and will have to prove its educational and cost effectiveness. IT integration cannot be effected satisfactory without guidance and support from rigorous research, and this research has to be evidence-based rather than assertion led.

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