PERCEPTIONS OF THE OPEN DISTANCE AND E-LEARNING MODEL AT A SOUTH AFRICAN UNIVERSITY

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ABSTRACT

Advances in technology are classified as one of the external factors that trigger organisational change, even for Higher Education Institutions. The transition to e-learning presents new challenges as expectations and roles of employees and students evolve. The primary objective of this study was to investigate employee perceptions of the Open Distance and e-Learning model at a university in South Africa. The research questions for this study addressed factors that necessitate change and the barriers to change in Higher Education Institutions. The study further investigated the extent to which competences of employees match the strategic objectives for the ODeL business model and also recommended intervention strategies that can be employed to minimise risk and smoothen the change process when ODeL is introduced. A quantitative research methodology was used to arrive at the findings through a survey. The findings revealed that most of the employees acknowledge the need for change. But the ODeL model was not well embraced as the intervention that could solve the discrepancies. This was because results showed that some employees did not have appropriate capabilities to effect the change, the management was not perceived to give them the necessary support, and employees could not see how the ODeL intervention would benefit them. A recommended area for further research would be on how the institution could optimise its resources for a cost-effective ODeL.

Contribution/Originality: The primary contribution of this paper revealed that although open distance and e-learning initiatives are crucial in tertiary institutions, which have to cater for growing numbers of students, without the necessary commitment from management to allay the concerns of employees, transformative change in the form of technological advancement would be exacerbated.

1. INTRODUCTION

One of the characteristics of a business environment is dynamism which is as a result of internal and external forces acting on an organisation. These forces dictate that organisations have to continually change strategic direction, products, structure and staffing levels to remain competitive (Bordia *et al.*, 2004). Therefore organisational development process is a means that seeks to create self-directed change to which people are committed and often leads to new organisational structures and relationships. Armenakis *et al.* (2007) define organisational change as *"an allocation of organizational resources; therefore, employee perceptions of organizational justice should be related to how organizational change is implemented. Employees should articulate attitudes of commitment toward organizational change"*. But Bordia *et al.* argue that change in an organisation leads to uncertainty and stress which

has negative consequences on psychological well-being of employees. They further describe the three types of uncertainty as:

- **strategic uncertainty** which 'refers to uncertainty regarding organization-level issues, such as reasons for change, planning and future direction of the organization, its sustainability, the nature of the business environment the organization will face, and so forth;
- **structural uncertainty** which 'refers to uncertainty arising from changes to the inner workings of the organization, such as reporting structures and functions of different work-units;
- **Job-related uncertainty** which 'includes uncertainty regarding job security, promotion opportunities, changes to the job role,..'

It is therefore important for the management of an organisation to understand the perceptions and uncertainties that employees have about change and culture so that necessary strategies to smoothen the process can be factored in to achieve the anticipated transformation.

1.1. Background to the Problem

Advances in technology are classified as one of the external factors that trigger organisational change. Higher Education Institutions (HEIs) have also followed the business trends brought about by technology to attain competitive advantage. According to Rajasingham (2011) *"Technological innovation is changing the way in which universities teach and students learn, and the way information is processed into knowledge that is applied to real-life problems"*. This transformation increasingly puts pressure on academics to develop flexible, engaging, cost-effective and sustainable interactive resources that incorporate multimedia and hypermedia. Therefore, transition to e-learning presents new challenges as expectations and roles of employees and students evolve. As the online usage in education grows, students as well as employees have no option but to develop new skills required to be competent online learners (Karacapilidis, 2010). The Open Distance Learning (ODL) institution introduced an Open Distance and e-Learning (ODeL) business model which embraces online learning as from 2013. This business model dictates that the institution gradually shifts from the predominantly print-based ODL model, with physical printing, warehousing, material distribution and physical administration of assignments to an environment in which all operations and systems are fully digitized requiring robust, effective and integrated Information Communication Technology (ICT) applications to support, among other things, the core business of teaching, learning, research and innovation. So the ODeL change management process has to be well-defined to allow effective implementation of the new business model. Managing change encompasses management of reactions and resistance to change by employees which is a result of the cultural change brought about by the new business path. Uncertainty, which is a sense of doubt about future events or about cause and effect relationships in the environment (Bordia *et al.*, 2004), may pose a serious challenge for management during organisational change among employees, if it is not addressed early enough. One key to managing change is to plan for it and be ready with variety of strategies to help employees to negotiate the transition (Noe *et al.*, 2008). This study will examine the employee perceptions about the Open Distance and e-Learning (ODeL) change management process as it infolds, and whether employees feel competent to effect the anticipated change at operational level at the institution.

1.2. Problem Statement

One of the threats identified in the institution's ODeL model is that the majority of their employees do not possess the required skills to affect the shift, which may pose a serious operational risk. So the ODeL change management process has to be well-defined to allow effective implementation of the business model. One of the features of strategic management to change is to match the activities of the organisation to its resources capabilities; assessing the extent to which sufficient resources can be provided to take advantage of opportunities or avoid threats in the organisation's environment (Noe *et al.*, 2008). So it is imperative to investigate the perceptions the

employees have about the ODeL change management process and also to establish the employees' perceptions of the ODeL model in relation to their competencies.

1.3. Aims of the Study

The aim of the study is to investigate the employee perceptions of the ODeL model in relation to their competencies and the ODeL change management process. The study will further assess the extent to which the competencies of the employees match the ODeL business model and the institution's strategic objectives. The study will finally recommend possible cost-effective interventions to effect change and address gaps.

1.4. Research Questions

Based on the research objectives, the following research questions have been formulated:

- What factors necessitate organisational change in HEIs?
- What are the challenges/barriers to organisational change in HEIs?
- What are the employees' perceptions with regards to ODeL change?
- To what extent do competences of the employees match the strategic objectives for the ODeL business model?
- What intervention strategies can be employed to minimise risk and smooth the change process?

1.5. Significance of the Study

Companies invest heavily in ICT to achieve strategic objectives. Whilst information technology is viewed as a factor that can be substituted for the cost of labour, buildings and machinery; Noe *et al.* (2008) argue that one of the features of strategic management to change is to match the activities of the organisation to its resources capabilities; assessing the extent to which sufficient resources can be provided to take advantage of opportunities or avoid threats in the organisation's environment. Hough *et al.* (2008) reiterate that "*a company's resource strengths represent competitive assets and are big determinants of its competitiveness and ability to succeed in the marketplace.*" It is therefore incumbent upon companies to understand the employees' perceptions about strategic change and its implications on culture to minimise resistance. Institutions of higher learning are not immune to technical, economic and social changes. The South African Department of Higher Education and Training (2013) provides a framework to improve capacity of the post-school education and training. Universities are seen among other co-functions as "*dominant producers of new knowledge, they assess and find new applications for existing knowledge, and they validate knowledge and values through their curricula*" (DHET, 2013). Therefore, a crucial factor would be "*to sustain adequate levels of academic staff, build capacity within the system, develop future generations of academics for the system, and substantially improve equity*" (DHET, 2013). In responding to the pressures brought about by government policies, globalisation and internationalisation of higher education, the institution adopted the ODeL business model that endorses an online distance education mode for students. The study aims to uncover employee perceptions of the ODeL model in relation to their competencies and the ODeL change management process at the institution. The extent at which employee competencies match the institution's strategic objectives with regards to the ODeL model and the perceived gaps in ODeL change management process will inform improvement plans based on recommendations made by this study. The study will further add value on how the institution positions itself in response to the DHET (2013). Lastly, the findings of the study will contribute to existing change management literature especially for HEIs as they increasingly migrate to technology-based teaching and learning.

2. RESEARCH METHODOLOGY

Welman *et al.* (2005) describe research as a process that culminates into obtaining scientific knowledge. To draw up a distinction, non-scientific knowledge can be obtained through opinion of peers; accidental observation;

debating; traditional recurrence and authority of some source. Scientific knowledge is obtainable through systematic observation, controlled approach in the process of obtaining information and the results can be replicated. This therefore implies that appropriate methods and procedures that are scientifically defendable, are used in specific stages during the research process. The aim of the research project determines which methods and techniques are to be used. In other words, the chosen research method depends on the research question being examined and will also direct the type of data to be collected (Polonsky and Walter, 2011). Therefore the logic behind the chosen methods and techniques is explained through the research methodology. Research methodology is the general approach that the researcher takes in carrying out the research projects. It has two primary functions of dictating and controlling the acquisition of data; and analysing the acquired data to extract meaning from them (Leedy and Ormrod, 2010). Grinnell *et al.* (2005) further define methodology as the use of quantitative and qualitative approaches to arrive at a solution to a specific problem. Welman *et al.* (2005) also refer to these approaches as positivist and anti-positivistic respectively. The positivistic approach uses structured methods to evaluate objective data consisting of numbers, whereas anti-positivistic approach uses flexible methods to investigate subjective data produced by the minds of respondents i.e *'the researcher attempts to understand the significance which the respondents attach to their environment'* (Welman *et al.*, 2005). This study adopted a descriptive, cross-sectional non-experimental research method. Since this study seeks to establish employee perceptions about the change implementation process of the ODeL business model, survey method was used in this research project. The respondents' manually collected responses were coded, categorised and reduced into numbers into an Excel spread sheet. The data was then statistically analysed using System Programming and Compiler Construction (SPSS) software.

2.1. Target Population

Welman *et al.* (2005) describe population *'as a total collection of all units of analysis about which the researcher wishes to make specific conclusions'*. Therefore population may comprise of individuals, groups, organisations, human products and events or conditions to which they are exposed. For the purposes of this study the target population comprises of all the institution's employees dealing with teaching and learning student support programmes.

2.2. Sampling Strategy

Sampling is a process of selecting sources from which data will be collected. Since it may not be possible for a researcher to study a large population; therefore selecting a sample from the population becomes the best option. For the purposes of this study, simple random sampling was selected from the four types of probability sampling. The reasons for the choice are based on the fact that participants are have homogeneous characteristics for the study in that they are all employees and directly involved in academic support programmes. Different sub-groups from population taken from various colleges, regional hubs and curriculum development division are likely to give similar answers. To eliminate the element of bias, every member in the target population has an equal chance of being selected into the sample. Johnson and Christenson (2010) suggest sample sizes for various population sizes. In this study the population is 2022 and therefore the suggested sample size is approximately 322. But considering the fact that some participants may refuse to participate in the study, and judging from the initial response rate on pilot study questionnaire uploaded on Survey Monkey, the likely number of participants was reduced to 50%. The original sample was then adjusted using this formula (Johnson and Christenson, 2010):

$$No\ of\ people\ to\ include\ in\ original\ sample = \frac{Desired\ sample\ size}{\%\ likely\ to\ respond}$$

Therefore, the desired sample size = No of people to include in original sample X % likely to respond. After substituting the values, the desired sample = 322 X 50%. For this study the sample then became 161. A representative sample as defined by Johnson and Christenson (2010) *'resembles the population it came from on all*

characteristics'. The conclusion made was that the sample was representative of the population in that all targeted Colleges and Directorates were well distributed when the response rates were analysed.

2.3. Data Collection

Survey research involves gathering information from a sample population which may reveal its characteristics, opinions, attitudes and previous experiences (Leedy and Ormrod, 2010). This research type uses techniques such as face-to-face interviews, telephone surveys, postal surveys, e-survey and self-administered surveys (Cooper and Schindler, 2008). An instrument used for collection of data in this study was a questionnaire. A questionnaire comprises of a list of well written structured questions (Nduna, 2013). According to Johnson and Christensen (2010) closed-ended questions are more appropriate for quantitative study because they provide the respondents with the same anticipated responses and also use scales for easy coding, recording and analysis. Questionnaires were first uploaded on Survey Monkey and the link shared with all respondents. Bulk emails with an embedded link to the instrument were sent to various Departments/Colleges through internal staff directory portal. An email was also used as another mode for questionnaire distribution to maximise return rate. Each participant received a questionnaire, a covering letter reflecting the purpose of the study and participants' rights and researcher's clearance letter to collect data from SRIHDC.

2.4. Pilot Study

Conducting a pilot study helps to determine if the questionnaire has validity for its purpose. A pilot study was conducted with ten per cent of the respondents so as to identify shortcomings in the research design. A suggestion that came out was that the questionnaire should also include some space for comments by the respondents. The suggested changes were also infused into the questionnaire.

2.5. Data Analysis

Data analysis takes place after the raw data has been collected. Polonsky and Walter (2011) differentiate between data analysis and data interpretation. Data analysis entails data assembling, cleaning and examining whereas data interpretation means making sense of the data collected. Cooper and Schindler (2008) reiterate that data analysis is a process of reducing accumulated data to a manageable size to allow for patterns and summaries to be developed. Data analysis assists in recommending a final course of action for decision makers based on the findings (Polonsky and Walter, 2011).

2.6. Reliability

Reliability of an instrument gives an indication of how much error it contains (Pallant, 2011). The reliability of the instrument using Cronbach's Alpha statistics was assessed through the pilot study. The questions were categorised under five perception categories namely, discrepancy, appropriateness, efficacy, principal support and valence. A Cronbach's Alpha value of 0.920 was obtained for all the Likert scale questions. Since the value is above 0.7, it indicates that the data collecting instrument was reliable. Furthermore, Cronbach's Alpha values for questionnaire statements were all above 0.900 as shown in table 4.3, thus confirming that the statements were indeed supposed to be in the questionnaire to maintain the 0.920 value.

2.7. Validity

The extent to which a research instrument measures what it is supposed to measure is referred to as validity. Internal and external validity are the two forms of validity. Welman *et al.* (2005) describes internal validity as the degree to which changes in the dependent variable are as a result of the independent variable only. To promote internal validity, it important to eliminate all possible threats or triggers to be able to interpret observed changes in

the dependent variable as the effects of the independent variable. Internal validity is therefore more appropriate for experimental research. External validity can be in two forms namely population validity and ecological validity.

2.8. Elimination of Bias

To ensure elimination of bias simple random sampling was selected as a technique to be used because it ensures that every member of the population has an equal chance of being selected for the study, thus eliminating biasness. The population comprised of only employees who were in the fore-front of proving academic support to students. The questionnaire was sent to all potential participants in the population to maximise return rate and to address the low return rate experienced during pilot study stage.

2.9. Limitations

This research study experienced some limitations like any other. It was a challenge to get the research clearance from the institution's Senate Research and Innovation and Higher Degrees Committee (SRIHDC). This is because the committee does not meet regularly to assess applications. Although it is understandable that the committee has to ensure research compliance, waiting for submission dates, application corrections and suggestions and re-submissions retard the research process. Survey Monkey on Google was initially used to pilot the study and a link to the questionnaire sent through email but the response rate was only 31%. As a result, the sample size was then reduced from 322 to 161. Also an email was used to re-distribute questionnaires to the sample. This was challenge to some respondents as it meant devising means to return the completed questionnaire rather than an easy 'click submit' option. Some respondents also felt that the email was compromising their anonymity. An undertaking, approved by the Research Integrity Office, to guarantee confidentiality of respondents' particulars had to be sent to respondents. Another limitation for the study is that the research method used to source employee perceptions was only quantitative. The researcher felt that if mixed methods were used, more information to support participants' choice of answers in Likert scale could have been obtained through interviews. Lack of funding, time constraints, to reach more participants are some of the factors that informed the decision to choose quantitative research method and reduce the sample size. Increasing response rate and getting more substantial information through interviews would have meant sourcing data collectors, travelling and absence from work to reach the dispersed centres. Consequently, the ultimate responses attained amounted to 75% of the original sample. The study did not involve employees responsible for designing programmes on employee training and development. This would have brought another dimension in which information about the types of skills development programmes available at the institution and those that employees enrol for in relation to ODeL.

2.10. Ethical Considerations

Research ethics as defined by Johnson and Christensen (2010) are a set of principles used to guide researchers in conducting ethical studies. There three ethical concerns that behavioural scientists address, namely, relationship between society and science; professional issues and treatment of research participants (Johnson and Christensen, 2010). Treatment of research participants is one of the most fundamental issues which need maximum caution to avoid potential physical and psychological harm. Ethical guidelines for research with humans include notifying participants about the purpose, procedures, risks, benefits, alternative procedures and limits of confidentiality; getting consent from participants; getting informed consent from participants, committing to ethical standards such as freedom to withdraw, protection from mental and physical harm, confidentiality, anonymity and privacy. Whilst the internet can still be used a medium to collect data from a large number of participants without time and cost constraints, challenges are still experienced. These challenges include issues such as obtaining participants consent, maintaining the privacy of the data collected and debriefing research participants after completing the study.

3. RESULTS

Higher control over the work environment, participation in decision-making and general improvements of the work experience are some of the potential intrinsic gains that Kim *et al.* (2011) point out. These benefits are also traced through respondents' comments associated with the introduction of ODeL model as summarised below. The ODeL benefits are grounded around efficiency and effectiveness of the model such as:

- The institution has contracted service providers that are tasked with the delivery of study material and assignments to students. This service is sometimes compromised when industrial strikes take place. So the ODeL model can improve the administration of assignments and study material for students in that it would be obtainable online thus efficient service delivery is realised.

- The ODeL introduces benefits for lecturers such as marking assignments online which results to speedy and informative feedback to individual students and the student support portal.

- It promotes lecturer - student, student - content and student – student interaction. The signature modules from each college and e-tutorials encourage this interaction. This constant interaction helps to lecturers and tutors to quickly identify content areas that students struggle with. Coupled with this, students' computer literacy levels improve, real time solutions are provided. Not only can the institution's throughput rate improve but competent graduates can also be produces.

To address all the ODeL '*teething problems'* as one respondent refers to them, the following barriers or challenges and recommendations are put forward

Barriers/ Challenges	Recommendations
Inadequate ICT Infrastructure	Improvement of the ICT infrastructure and internet connectivity still needs to be given much attention. The question of the broad band width should also be closely looked at to inform implementation pace of ODeL and solve challenges associated with onscreen marking that lecturers' experience.
Diverse student Profile	Some students are in deep rural areas where internet connectivity and accessibility to internet-enabled points are still a challenge. Therefore in the meantime other models over and above ODeL may also be explored to cater for diverse needs of the students.
Students Computer Literacy levels	Intensification of student computer literacy workshops can ensure that all students meet a minimum computer literacy standard during the first year of study. This intervention will ensure maximum participation and usage of online platforms by students.
Low participation rate of lecturers in online discussions with students	Lecturers and students have to actively participate in online discussion forums/blogs because the facilitating lecture sets the pace and can quickly identify areas that students struggle with. Simultaneously students get to understand what is expected of them and improve their skills on computer literacy.
Insufficient training for staff and students	ODeL model be introduced slowly to all the institution's community to allow space for adapting and training. Both lecturers and students still need intensive training to confidently use online platforms in teaching and learning.

Most of these challenges are centred around ICT infrastructure and skills development. The possible solutions given by employees are worth exploring by the institution's change champions to inform improvement plans for a successful ODeL change to be realised.

3.1. Conclusion

Out of 140 self-administered questionnaires, 120 of them were received back comprising of 86%. From the 86% obtained, 29.2% were administrators whereas 70.8% were academics. A Cronbach's Alpha value of 0.920 was obtained indicating that the questionnaire was reliable as a data collecting instrument. Most respondents were academics from various Colleges with CEMS contributing 22.5% to the overall figure of 70.8%. Males exceeded females by only 1.6% comprising of 50.8%. Most respondents have worked for the institution for more than 5 years adding to an overall 85.7%. Most respondents were above 35 years of age constituting 85.8%. It was discovered that 80% of personnel acknowledged the need for change but the ODeL model was not well embraced as the intervention that could solve the discrepancy hence all perception categories percentages decreased. When

employees' age was considered, it was discovered that the employees above 50 years of age were inclined to accept about the ODeL model. Gender did not have influence on the perception categories since the values were comparable. Academic employees comprise of a larger percentage in all perception categories except efficacy. What is worth emphasizing is that only 57.7% employees seemed to have capabilities to implement ODeL change of which 26.5% are academics. When experience at the institution was considered employees with 11 to 15 years of experienced seemed to have lowest values below the 15 years and above group.

4. CONCLUSIONS AND RECOMMENDATIONS

Objective 1: Identify the factors that necessitate organisational change in Higher Education Institutions (HEIs) and particularly at the institution: The benefits that come with technological innovations in teaching and learning are also tracked from employees' comments. For instance, service providers' industrial strikes that sometimes retard administration and delivery of student material get eliminated with the introduction of ODeL. Increased interaction within student-lecturer-content triangular set-up is realised. Therefore embracing ODeL will definitely break the student isolation that comes with distance education. But the empirical findings reveal that inadequate computer literacy level of most students is a challenge. Therefore training and development, coupled with increased student access to technology, is of utmost importance. The other benefit that comes with ODeL model at the institution is efficient online marking of students' assignments. This allows informative feedback to individual students, elaborative comments and additional resources for all students on the student portal. So the adequate ICT infrastructure is a crucial determinant for successful implementation of ODeL at the institution. The introduction of the diversified and integrated post school education that incorporates both open distance and campus based learning by the South African government decreases monopoly for the institution as a leading distance education institution in South Africa. Therefore to avoid talent drainage, a strategy that would ensure that employees are nurtured and retained is required. Secondly, a strategic change that would maximise student retention and throughput is also necessary for the institution to remain a distance education university of choice. Objective 2: Discuss the challenges/barriers to organisational change in HEIs and specifically at the institution: At the institution the change champions' hierarchy trails from executive management to line managers. The empirical findings reveal that only 31.1% of employees believe that the institution's top leaders 'walk the talk' of ODeL change. This implies that management may have communicated the ODeL change to employees but signs of shift in terms of operations are not noticeable. The total average percentage shows that 49.3% believe that there is principal support from top and line managers. This then shows that there is not enough impetus to propel employees to push the change agenda. This may retard the change process if top leaders are perceived not to support the ODeL change. The empirical findings also reveal that only 27.5% believes that their peers accept ODeL change. This may have a negative bearing on any support intervention introduced for employees to boost confidence their levels. It is not surprising, therefore, that only an average of 57.7% of employees has the necessary ODeL capabilities to implement the change. The empirical findings also illustrate that employees tend not to foresee any opportunities for personal growth and development. This is confirmed by an average of 40.9% employees optimistic about ODeL change. Some employees even feel that ODeL change should be introduced slowly to allow space for adaptation, but the truth of the matter is that technology developments worldwide are moving at a very fast pace and they need to embraced into teaching and learning for the institution to remain competitive. Objective 3: Establish employee perceptions with regards to ODeL change: The employee change perceptions were categorised into discrepancy, appropriateness efficacy principal support and valence. The empirical findings on discrepancy reveal that 80.6% of the employees seem to agree with the fact that there is a need to change operations to improve service delivery. But this percentage drops 52.4% on appropriateness when ODeL is portrayed as the preferred model to remedy the situation. This is also confirmed by the employee views such as inadequate ICT infrastructure, low student computer literacy levels, insufficient training for employees and students as hindrances for a fruitful ODeL. The

expected employee support for ODeL change from management scores only 49.3%. Another low score of only 40.6% of employees perceiving that ODeL change can benefit them. This implies that there is no visible commitment and support from top management for the ODeL change. The expected support can be in the form of effective communication of the vision and achieved ODeL milestones, change to systems and structures to support the change, upskilling the workforce to manage the change and introduction of incentives to motivate employees.

Objective 4: Assess the extent to which the employee competencies match the ODeL business model *objective:* The empirical findings reveal that a majority of the employees do not perceive themselves to be having relevant capabilities to meet ODeL service delivery requirements. Only 57.7% of employees feel confident that they have capabilities to perform ODeL related activities. It is not surprising therefore that within this percentage, employee-employee assessment of ODeL acceptance and embrace is at a low 27.5%. These findings can be linked to the perceived low participation rate of lecturers in online discussions with students. What this means therefore is that intensive training is required.

4.1. Recommendations of the Study

Objective 5: What intervention strategies can be employed to minimise risk and smoothen the change process?: Another objective for conducting this study was that when factors leading to ODeL change and barriers to ODeL change are identified, employee perceptions about ODeL change obtained then practical solutions based on the theoretical and empirical findings would be recommended. These recommendations may be used by Higher Education stakeholders, the institution's ODeL change drivers and their community to address some challenges to ensure a successful and effective ODeL change. Another strategy that can be employed during the change process is to intensify the Human Resource (HR) department function of being a change agent Change dictates an introduction of new processes and systems in an organisation's business. Therefore HR department has to provide training and development programmes such as for employees to embrace the change. Another crucial area for a successful ODeL model is the skills development for employees. These skills are relevant for the four key areas in teaching and learning, which are content development, design of learning activities, teaching strategies and assessment. This implies therefore, for effective skills development programme, all stakeholders such as ICT, HR, Curriculum Design and Quality Assurance Departments within an institution have to collaborate and develop an ODeL skills development strategy for the employees and for HR to facilitate.

4.2. Training and Development for Employees

This study indicated that not all employees are adequately skilled to meet the ODeL expectations. The study further revealed that participation rate of lecturers in online discussion forums with students is minimal. Management should ensure that ODeL training and development programmes are intensified for all levels of human resource. Gauging levels of expected skills and knowledge for each and every employee can be a starting point so that relevant interventions can be introduced early enough.

4.3. Adequate ICT Infrastructure

E-learning classes may be asynchronous or synchronous. Although there are massive costs incurred when producing material, software and hardware purchases, training instructors and students, but adequate ICT infrastructure is a prerequisite for a successful e –learning. At the institution issues of bandwidth, upgrading of ICT infrastructure to be compatible with e-learning requirements and off-campus internet connectivity for students have to be resolved for the institution to remain competitive whilst intensifying student support.

4.4. Students' Readiness and Preparedness

Student readiness is perceived as one of the catalysts to successful online learning in that students must have access to reliable technology. Over and above the computer laboratories that the institution provides, students must still have their own computers, tables and smartphones to benefit fully on the programme. The institution has established partnerships with technology service providers for students to get the internet-enabled devices at a discount. But still, some students may not be ready for the costs and therefore have to rely on computer laboratories at the regional centres and Municipality Multi-Purpose Centres that the institution has developed partnerships with. This option also means that students have to travel to these centres. Exploration of this intervention to assess the possibility of incorporating the internet-enabled devices costs into the tuition fees can be followed. A laptop, loaded with all study material and relevant software, can be the best device in that students can still upload assignments and download study material because of the memory space. Although this does not alleviate the burden of costs from the student but all students can have access to technology simultaneously. Coupled with student access to technology is student training. The institution's student profile is such that computer literacy levels are not the same. Students coming from deep-rural areas and also those that are just technophobic need to be prepared for e-learning through compulsory basic computer training programmes. A compulsory computer literacy level assessment can be introduced to sift students that need further assistance.

4.5. Conclusions from the Study

Guided by the research questions it can be concluded that there are factors that propel the institution to consider the ODeL model as an option to effect organisational change. The external factors such as government legislation and its funding model, the institution as the only ODL public institution in South Africa and globalisation of education are some of the contributors. But internally, for the institution to improve on student success and throughput, the benefits that come with technology usage have to be explored and utilised fully. The other conclusion that can be drawn is that there are still challenges within the institution which may hinder the successful implementation of the ODeL model. Inadequate infrastructure, full employee commitment to ODeL change, resources, diversified student needs and computer literacy levels and intensive training and development of employees and students are some of the challenges that need attention of the management. It can also be concluded that the employee perceptions with regards to the institution adopting the ODeL model reveal a lot of uncertainty. Firstly, the results reveal that the majority of employees perceive that there is need for the institution to change so that operations can improve. But the percentages of employees supporting the ODeL model as the solution start to decrease. The perceptions also reveal that there is still not enough support that the employees get from management to solidify their confidence levels even in terms of their capabilities. Recommendations to remedy the situation have been discussed in the previous section. The study has revealed that employee perceptions under discrepancy, appropriateness, efficacy, principal support and valence about ODeL model. Although employees acknowledge the discrepancy which affects teaching and learning, the results show that the ODeL model as an option is not well received. The other concerning issue is that most employees do not foresee any personal benefits linked to ODeL. Moreover, an unsatisfactory percentage of employees have the capabilities to implement the ODeL change. This revelation is crucial for management to craft ODeL training and development strategy for employees. Parallel to this, can be an intensification of computer literacy programmes for students. In this instance, training and development can be one of the boosters of enhanced instructor-student commitment and participation to e-learning.

4.6. Areas of Further Research

The study focussed on the institution's academics and regional centres employees and excluded other support departments and directorates such as ICT, Counselling and Career Development, Curriculum and Learning

Development etc. It would be interesting to understand their challenges and strides achieved with regards to ODeL. Since online learning is becoming a cornerstone for distance education, the institution would have to balance between e-learning costs, and increased student access that South African Education White Paper advocates for, so that quality is not compromised. So a particular resources optimisation model that seeks to improve or maintain competitive advantage would have to be crafted. Therefore, another area of research can be on how the institution optimises its resources to address ODeL requirements appropriately and not incur a lot of costs. Lastly, a related or similar study can still be conducted where a researcher would use qualitative or mixed methods in order to capture a deeper understanding of employee perceptions about the ODeL model. Another most important issue is for the institution is to come up with mechanisms to strike a balance between increasing student numbers, cost and quality for successful and effective ODeL.

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