

AWARENESS AS A DETERMINANT OF EDUCATIONAL MANAGERS' SUPPORT FOR DISTANCE LEARNING MODE OF DELIVERY: THE CASE OF WESTERN REGION, KENYA

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ABSTRACTS

In many countries distance learning has been adopted and has had significant success in terms of accommodating large number of students at the same time. Despite Distance Education (DE) mode of learning having been introduced in Kenya in the 1960's at the University of Nairobi, only a few students are reported to have completed various courses through the mode. This study seeks to establish how level of awareness of educational managers about DE mode of learning in Western Region of Kenya determine their support for the DE mode of learning. The objective of this paper is to examine the extent to which the level of awareness of educational managers about ODL mode of delivery determines their support for the mode of leaning in the western region of Kenya. The data collected was analyzed using both qualitative and qualitative techniques. A hypothesis was also tested at 0.05 level of significance using Chi-square statistical test to address the phenomenon. The findings showed that educational managers' support for DE mode of learning was determined by their level of awareness about DE mode of learning. The study recommended that teacher training institutions should revise their syllabi to include DE units in their new courses. This would expose students undergoing educational courses to appreciate Distance Education mode of delivery, that is, its strengths, weaknesses and suitability in various situations. Further a major campaign also needs to be organized to sensitize existing educational managers of the effectiveness and efficiency of DE mode of learning. A good number of educational managers are still not fully exposed to distance education mode of learning despite their background in education and their work experiences in the education sector. More research also needs to be conducted to establish the situational effectiveness of various modes of learning. This would allow stakeholders to make informed decisions regarding appropriate mode of learning, taking cognizance of prevailing circumstances. It is further recommended that the government should review its policy on education to provide an enabling environment for employees / students undergoing DE programmes while working.

KEYWORDS: Distance Learning, Distance Mode of Delivery, Education Managers, Distance Education Support

INTRODUCTION

In Kenya, demand for university education has been escalating, surpassing its supply especially for conventional mode of study. The problem has not been alleviated even by the introduction of DE mode of learning which has been used in other countries to accommodate large numbers of learners at the same time (Mbugua,2012). It had been noted from casual discussions with students in the Western Region during routine regional meetings organized by the University of Nairobi that DE learners and would be learners do not get the expected support from their seniors in terms of motivation, information, release time to study, to attend teaching practice exercise, to attend meetings organized by Universities during self study periods, to attend residential sessions and posting on completion of their courses (Mbugua, 2012). Students

attributed this problem to lack of awareness by education managers about DE mode of delivery. This study was therefore designed to investigate awareness as a determinant of educational managers' support for DE mode of delivery in Western Region of Kenya in an effort to verify the expressions by students and to make recommendations on how to resolve the problem.

Distance Education is not a new phenomenon in the world; however, it has evolved through several stages to its current state following different paths of development. In Russia, for instance, institutionalized DE was established as early as 1850 based on correspondence (Gakuu, 2007). Earlier in 1840 an Englishman called Pitman had offered a class in shorthand taught entirely by mail (Williamson, 2009). Later, other providers of post-secondary distance education courses were established in various parts of the world. These providers included, the Toussaint and Langenscheidt institute in Berlin established in 1856 and the Swedish Libert Hermonds Institute established in 1898 with over 150,000 students each (Sclosser, 2002).

Today, millions of students acquire certification, personal educational enrichment and advanced degrees through Distance Education (DE) programmes. Advanced technology has set the stage for the use of different methods of delivery ranging from print materials, online chat, advanced email services, to conferencing media (synchronous, and asynchronous). With these combinations mega universities have been established all over the world, serving more than 100,000 students at a given time. The mega universities include of United Kingdom Open University, Indhira Gandhi National Open University, University of South Africa and Africa Virtual University (Daniel, 1996). Education is viewed as the most instrumental factor in determining the character and pace of a country's economic and social development. It is in this regard that most countries allocate a huge proportion of their budget to education. Studies have revealed that expenditure on education in developing countries is a profitable investment and that the rate of returns from education is higher than for physical investment (Hossain & Psacharopoulos, 1994; Psacharopoulos, 1985). Developing countries in particular must try to obtain the maximum return from their investment.

Kenya, like other global economies, has invested heavily in education yet access to Education, especially at university level, has been a mirage to a great majority as demand for education has over striped the supply (Mwiria and Nyakundi, 1994). The Government of Kenya, through the Ministry of Education spent KShs.125.28 billion on education in the financial year 2007/2008. This was an increase from ksh.144.7 million allocated to education in the financial year 1963/64 which translated to 25.7% of the total budget compared to 37.7% of the 1987/88 budget. The increase in allocation was attributed to teachers, civil servants and lecturer's salaries (World Bank, 2003). The budget has gone up to 233.1 billion (16% of the total budget) in the financial year 2012/2013 of which 118.7 billion or (50.9%) was to cater for teachers salaries (Rep, 2012). Due to high costs involved in provision of education, Saint (2000) argued that Open universities could be used as a way of saving manpower while at the same time increasing students enrolment. As Pityana (2004) aptly puts it conventional higher education will never be able to meet the demands to redress the situation. Situational analysis in Kenya showed a big deficit between secondary school leavers qualifying to join Universities and Government sponsored vacancies available for them (Ministry of Higher Education Science and Technology (2009). Yet no single open university is registered and or sponsored by the government to admit the balance.

Table 1: University and Module 1 University Enrolments, 2006-2007 and Estimates Through to 2012

Kcse/ Year	No.Reg	No.Qual C+ And Above	No. Admitted	No. Not Admitted	% Admitted	% Not Admitted
2006	243318	62853	16151	46702	25.7	74.3
2007	276,193	74,299	16,229	57,670	22.4	77.6
2008	304,995	72,590	20,073	52,517	27.7	72.3
2009	322,467	74,643	21,223	53,420	28.4	71.6
2010	357,488	97,137	32,000	65,137	32.9	67.1
2011	360,470	83,440	23,724	59,716	28.4	71.6
2012	381,120	88,219	25,083	63,136	28.4	71.6

BOLD ITALICS ESTIMATES

The increase in enrolment at University level in 2010 to 2011 was reported to be higher (11.6%) than the increase at Secondary level (7.3%) and even at Primary level (Rep, 2012).

The success of distance education, partly depends on support for the mode of learning since most learning takes place at a distance (Robinson1995; Sahoo1993). Daniel (1996) demonstrated how distance education (DE) mode of teaching can be efficient by documenting that in US 3500 colleges and Universities collectively served 14 million students at an average annual cost of \$12500 each. In contrast, 11 Mega Universities served 2.8 million distance students at an average annual cost of \$350 each. Similarly, Hawkridge in his 1974 report conceded that open universities were more cost effective compared to conventional universities. Other scholars sharing the same views include: (Casey 1998; Parraton, 2000; Harry and Perraton,2003). This shows that if DE was to be accepted as an alternative mode of delivery, then the cost of education could be reduced tremendously. From the above observation, capital – intensive technology seems to be an answer to the issue of access to higher education. Pityana (2009) argued that DE mode of delivery is a viable cost effective means of expanding provision without costly outlay in infrastructure. This argument notwithstanding open and distance systems are able to accommodate a large number of students at the same time. Therefore, DE mode has been seen by many as the solution to accessing education, yet this seems not to have received much support from the stakeholders in many developing countries, Kenya included. According to Pityana (2004), there is no universal appeal for distance education among would be learners except in South Africa which has been practising distance education since 1946 and suspicions remain about the quality acquired by distance education in Africa.

One would think that African countries would be in the forefront in embracing DE mode of delivery, which is capable of competently handling large numbers of students totalling 100,000 or more at a time as it has happened in other countries. University of Nairobi, which is the oldest university in Kenya, is reported to have trained only about 80,000 people since its inception in 1960s (University of Nairobi, 2005). The number of students trained in the University of Nairobi is therefore equivalent to only one intake of the established mega Universities. For instance, the first Open University in UK opened its doors to students in 1971 and by 1980 its enrolment had risen to 70,000 students. In 1998, this university conferred degrees to 200,000 graduands. The success of the United Kingdom Open University is attributable to support received from the employers as well as innovative teaching methods applied (Thairu 2010). Surprisingly, most African countries have not been very fast in embracing DE as an alternative mode of education delivery (Daniel, 2001). This is contrary to the belief of many who had viewed distance learning mode as a panacea to access or democratisation of education. As Hall in 1996 puts it “distance education showed that it could provide educational opportunities to large numbers of people who had previously been denied such opportunities, and that it could be done in a cost-effective

manner...The developing countries have found in distance education an answer to the previously almost insurmountable problem of how to take education to large numbers of their population who are isolated geographically”p.77

In Kenya DE programmes have not been able to attract many students and so stakeholders are unable to benefit from economies of scale. For instance, the total number of students registered under DE at the University of Nairobi are less than 6,000 (admissions) with some programmes failing to attract more than 100 students. Kenyatta University on the other hand, which is the second largest University in Kenya, offers distance programmes in 9 schools out of the existing 16 schools. This shows that the country has not taken advantage of mass production and cost effectiveness of DE mode of delivery which has been used to increase access to education and to maintain and improve quality in the conventional education system particularly through in service of teachers (UNESCO,2003).

Despite the shortage, only a small percentage of students direct from secondary schools opt to join universities through distance education mode. For instance, in a study by Rambo and Odundo (2010) out of their sample of 673 distance education learners registered at the University of Nairobi for B.Ed. Programme, 84.5% were Teachers Service Commission employees and a further 4.3% were employed by other sectors. This meant that a total of 88.8% of the sampled students were employees, while only 12.2% were either not employed or were direct from secondary schools. Mboroki (2007) and Bowa (2008) showed similar trends.

The situation is not any better in private universities, Nancy and Kinya, (2010) in their study targeting Private Universities where Catholic University of Eastern Africa, United States International University and Daystar University were included, revealed similar outcome. In their study 72.9% of the respondents were employed, while only 25.9% were not employed. In the study by Nancy and Kinya however, both distance and evening students were considered, therefore the students registered under continuing education were not purely distance learners.

Mwongera and Faida in (2010) in their study involving 80 first year Master of Business Administration at Tumaini University, in Tanzania also revealed similar results. The data indicates that distance education mode of learning has not attracted a lot of attention, especially from the school leavers. It therefore appears like DE mode of learning is mainly attractive to working class cadre that cannot fit in the conventional system of education. The situation is not much different in other African countries. For instance, Nigeria which has a total of 104 universities has not been able to accommodate the number of candidates who meet the minimum qualification to join these Universities. In the 2010/2011 academic session, 839,147 candidates were eligible for admission into conventional higher institutions in Nigeria but only about 500,000 students could be admitted to conventional universities. The other 339,147 candidates who were qualified could not be admitted owing to lack of space and other materials. These young people could be admitted on distance learning programmes that are free from limitations of both human and material resources (Ofoha and Awe, 2011).

The Government of Kenya’s support to institutions offering education through DE mode of training seems to be shaky. This is illustrated by the state of the facilities used in offering distance education programmes at the University of Nairobi and other institutions of higher learning. Republic of Kenya, (1988) described the facility at the University of Nairobi as comprising a printing press, a small recording studio, a typing pool, records office and stores section which were said to be too old and too small to cater for expanding programmes. It is important to note that efforts are being made to support open and distance programmes through budget allocation. Between 2005 and 2010, the Government of Kenya allocated ksh1.3 billion to be used to finance DE related activities (Republic of Kenya, 2005). The situation however seems not to have changed much to date. Recently, Bowa (2008) established that 90% of distance education students under the

study were dissatisfied with the provision of study materials. In the same study Bowa (2008) also revealed that on average each student was issued with 3.2 study materials instead of the stipulated 8. Earlier, Mboroki (2007) had also indicated that 94% of the DE learners considered in the study had not received adequate self-instructional distance study materials this was due high demand that exceeded supply or due to fees payment requirement. The centres for open and distance learning have since been established at the University of Nairobi and Kenyatta University but not much achievement has been noted as far as students' registration is concerned. For instance, according to UoN (2009), students continuing with studies were mainly on face to face programme despite existence of distance programme option. Yet available studies on effectiveness of DE modes of studies indicate no significant difference in students' achievement, regardless of the mode of study, that is whether face to face or distance mode (Capper and Fletcher, 1996; Moore and Thompson, 1997; Schutte, 1997; Morrissey, 1998; Bradford, 1999; Paskey, 2001; Parker and Gemino, 2001) while others such as (Daugherty and Funke, 1998; Hiltz, 1994; Harting and Erthal, 2005) found learners from DL mode of delivery to be better than learners from conventional mode in examinations performance, especially in solving complicated problems.

It is important for the government of Kenya to expand access to university education for its people. One possible way of doing this is looking for alternative methods that could be more economical and equally effective. This goes in line with recommendations of Tsang (1988) who suggested the following as strategies for reducing cost associated with linear expansion of traditional education: The strategy of making maximum utilisation of resources, reallocating resources in education and involving alternative technologies in education such as use of DE methods. Though DE has been suggested as a viable option, educational managers and other stakeholders seem to be reluctant to recommend it as a suitable complimentary teaching method, especially at tertiary level of education (Wagner, 1977 and Parraton, 2001).

The Government of Kenya has been elevating existing middle level colleges to full university status, a move that has not solved the problem of access to university education. The educational managers and education stakeholders in Kenya have been reluctant to provide support to DE mode of delivery. According to the Ministry of Education (2005), one of the strategies to increase access to education is to promote and popularise ODL programmes. This can be successfully achieved through first popularising it amongst the opinion leaders as far as educational issues are concerned. These opinion leaders include regional educational managers. There seems to be insufficient budgets from the government allocated to support DL mode of delivery. It is also noted that this seems to be the trend even in other countries. In India a student going through DE mode of learning, pay more than four times, compared to a student going through conventional method. This is as a result of heavy subsidies towards conventional mode of education by the government and none towards distance education mode (Manjulika and Reddy, 1996). There have been non-supportive attitudes among the public decision makers as well as professionals, towards distance education (Mathews, 1999). This may influence their support for the adoption of DE as an alternative method to conventional method of teaching (Mathews, 1999 and also Miller and Pilcher, 1999).

Considering history of various Public Universities in Kenya, it can correctly be concluded that all the existing 17 chartered public Universities have been elevated from college status to University status apart from Moi University which was established as a full university in 1984 yet the problem of access of University education remain a nightmare to educational planners and decision makers.

The purpose of the study was to investigate awareness as a determinant of educational managers' support for Distance Education mode of learning in Western Region of Kenya. The objective of the study was to assess the extent to

which level of awareness of educational managers about DE mode of delivery determines their support for Distance Learning mode delivery in Western Region.

The study sought to answer the following research question:

How do educational managers' state of awareness of Distance Learning determines their support for Distance Learning mode of delivery in western region of Kenya?

The study tested the following hypothesis:

H1: There is a relationship between awareness of educational managers about DL and their support for DL mode of delivery.

THEORETICAL FRAMEWORK

The study was based on two major theories, the theory of industrialization of education by Peters (1967) and theory of diffusion of innovations by Rogers (2003). According to Peters (1967), teaching at a distance was so different from conventional teaching that there was need for researchers in distance teaching to develop a more relevant model. Peters (1967) conceded that analysis of distance education in terms of conventional instruction theory was a failure and unproductive, therefore, there was need for a different approach.

Peters (1967) developed a model equating teaching at a distance to an industrial production process. His research led to the conclusion that DE was an industrialized form of education and industrialization was its best explanation. According to the theory of industrialization, distance teaching could not have existed before the industrial era. The following similarities between industrial production of goods and distance teaching were identified: rationalization, division of work, mechanization, mass production, planning and preparation, standardization and monopolization of operation.

For the theory of Industrialisation to be practical and viable the number of students involved has to be high for the theory of economies of scale to work. Economies of scale indicate that a firm benefits in several ways owing to large scale production. These include technical economies of scale, financial economies of scale, marketing economies of scale and managerial economies of scale. There is therefore need to encourage as many students as possible to participate in DL mode of delivery. Though the idea of increasing access to education through DL mode of delivery is good there is need for educational professionals to be fully involved so that as the principles of industrialisation are applied in the education sector, the quality of education is not compromised through mushrooming of ill prepared Universities or institutions of higher learning aimed at making profit from innocent students (Lukoye, 2008). On the other hand the theory of diffusion of innovations suggests five qualities that determine adoption of a new idea or a product (Rogers, 2003). These are relative advantage, compatibility with the existing values and practices, simplicity and ease of use, trial ability and observable results. Since education is a long term investment of which some of the above qualities cannot be easily quantified objectively. The roles of peer and opinion leaders become imperative in decision making.

RESEARCH METHODOLOGY

The study took a mixed approach. It qualified as a descriptive survey research taking both qualitative and quantitative approaches. Ex-post-facto design was found to be appropriate owing to the subjects under study, that is, human beings. It is difficult to control some independent variables under study because their manifestations such as

awareness had already occurred. Cooper (2008) also supports mixed approach argument when he concluded that though there are a number of different design dimensions in existence, there is no simple classification system that defines all the variations that must be considered.

The study targeted Ministry of Education managers who interact closely with teachers as well as students. They are viewed as opinion leaders on issues pertaining to education. These included; Secondary school Principals and their deputies, Secondary school Heads of Departments, District Education Officers and District Quality Assurance Officers. In total, 2,282 educational managers in western region were targeted. Western region is now comprised of four counties that is Kakamega, Vihiga, Busia and Bungoma counties.

In the study, probability techniques were utilised to identify the respondents. Probability techniques that were applied were both simple random as well stratified random sampling. To determine the number of respondent for each category to be included in the study, the following formula recommended by Yamane (1967) was applied

$$n = \frac{N}{1 + N(e^2)}$$

Where e is the level of precision or margin of error

N is the sampling frame.

n is the ultimate sample size

The Principals, Deputy Principals and Heads of Departments were selected using random sampling but schools were used as the unit of sampling, that is all principals, deputy principals, and at least three heads of common departments of the schools selected participated in the study. The first 102 schools selected to participate in the study also produced the heads of departments to participate in the study that is 306. The common departments considered were, sciences, humanities and guidance and counselling departments. In some schools however career master were used in place of guidance and counselling.

Table 2: Target Population and Sample per Category

S/No	Category	Population(N)	Sample(N)
1	Secondary schools principals	445	210
2	Secondary schools deputy principals	445	210
3	Secondary schools heads of departments*	1335	307
4	DEOs	19	17
5	DDEOs	19	17
6	DQASOs	19	17
	TOTAL	2,282	778

The data in table 3.1 is compiled from Kenya Education Directory (2009) and directorate of Quality assurance (2004).

Three research assistants were engaged and trained on data collection techniques. To ensure they would produce consistent data all the three research assistants accompanied the principal researchers during pilot study.

The instrument used in data collection was a questionnaire and an interview guide. Triangulation was applied to eliminate response bias associated with measurement of opinions, attitudes and satisfaction. Caslyn and Winter (1999) and (Grandy,1998;Krosnick,1999) identified response bias such as respondent giving socially desirable answers, repeatedly endorsing items regardless of the content(acquiescence) and avoiding exaggerated or extreme responses. All these were

minimised through the use of in-depth interview conducted with all the respondents.

To improve the quality of the instruments a pretest was conducted. In addition to general improvement of the quality of the instruments the results of the study are also improved.

The two instruments were piloted in two of the districts of Western Region, namely, Busia and Lugari districts which were randomly selected from the list of 19 districts

To ensure the instruments were valid, the researchers borrowed heavily from existing Likert's five point scale. Likert scales are preferred because they are considered to be the most reliable and able to provide a greater volume of data compared to other scales. A pilot study was conducted to measure reliability of the instruments for use. The two districts that were used for pilot study were not considered in the final study. Spearman brown prophecy formula recommended by Garrett (2004) was used to determine reliability coefficient of the instrument. Correlation coefficient for split half measure was 0.75 while the reliability coefficient for the whole instrument was.....

The response rate of data collection was 610 (78%) which was considered adequate for social science research. According to Dillman (2000) a response rate of 60% for social science research is considered adequate. The study then used descriptive statistics to analyse the data collected. Qualitative data was first sorted out into categories then coded after which the coded information was classified into themes. Interconnections between questionnaire information and interview information were examined. The data collected was also presented in tabular format, as appropriate

This analysis generated descriptive statistics concerning the respondents. Chi-square test was performed to show whether the variance was attributable to the different conditions (Garrett, 2004). Specifically, the test was done to determine the influence of each 'awareness' indicator on support for DL mode of delivery.

FINDINGS AND DISCUSSIONS

The findings of the study are presented and discussed here below.

Influence of Level of Awareness on Support for DL Mode of Delivery

The study was interested in finding out the training institutions that the respondents went through and their familiarity with DE mode of delivery. This information was to be used to test whether the level of awareness of the respondents influenced their support for DL mode of delivery. Some institutions train students through face to face method, whereas others use dual mode where both face to face and distance modes are applied. On the other extreme, some offer all their programmes through pure distance learning mode of delivery. This was of interest to the study to establish whether those who went through institutions offering programmes through dual mode were more supportive to DE mode of training than those who went through institutions offering through single mode. The information collected concerning training institutions is shown in Table 3

Table 3: Distribution of the Respondents by their Training Institutions

Trainings Institutions	Frequency	Percentage
Kenyatta University	210	34.4
University of Nairobi	89	14.6
Egerton University	85	13.9
Moi University	62	10.2
MMUST	8	1.3
Maseno	17	2.8

Others	134	22.0
Missing	5	0.8
Total	610	100%

As shown in Table 3. 210 (34.4%) of the respondents were Kenyatta University graduates; 89 (14.6%) were University of Nairobi graduates, 85 (13.9%) were Egerton University graduates, 62 (10.2%) were Moi University graduates, 8 (1.3%) were Masinde Muliro University of science and technology graduates and 17 (2.8%) were Maseno University graduates. 134 (21.9%) were graduates from other institutions including diploma teachers colleges and private universities as well as those trained in foreign universities. The distributions, reflects the history of secondary school teacher training in Kenya with Kenyatta University being the oldest university training teachers first as a constituent college of the University of Nairobi from 1970 to 1985 when it was elevated into a fully fledged university. University of Nairobi resumed training of teachers in 1986 after Kenyatta University became autonomous when the first B.ed. students through distance mode were admitted and later joined by face to face group in 1988.

Egerton University was initially a constituent college of the University of Nairobi up to 1987 when it was elevated to full university status. Although Moi University was established in 1984 as the second university in Kenya, the few respondents 62 (10.2%) could be attributed to two factors. First the University was started as a fully fledged university and not as a constituent college like all the other universities in Kenya, and therefore it had not graduated any student prior to 1984. Secondly, at the time of its inception it was mainly an institution to offer science and technology courses with a relatively small number of arts courses. Education courses were not among these courses. The school of education at Moi University was started in 1987 with a single undergraduate degree programme that is Bachelor of Education (Arts). This therefore provides an explanation as to why Moi University graduates were not as many as one would have thought. Further, the respondents were asked to indicate their exposure or familiarity with the distance learning mode of delivery.

Level of Awareness and Support Accorded to DE Mode of Delivery

The data collected indicated that 310 (51%) of those included in the study were familiar with DE mode of training compared with 299 (49%) who admitted not being aware or familiar with DE mode of training refer to Table 4.14. This was surprising because those under study were educationists and therefore were expected to be fairly familiar with various modes of delivery available in the country. This was considered a surprise given that DL mode of delivery is an old phenomenon having been started around 17th century in other countries and in 1980s in Kenya. Nevertheless, lack of awareness could be as result of confusion that exists concerning terminology used for DE such as school based, continuing education, adult education home study and evening classes. All of which are treated as one and the same thing. Some universities offer school based programmes which have nothing to do with distance learning yet they make their clients belief that they are offering a distance education programme. Adult education programmes and any continuing education programme is considered as DL programme yet some have nothing to do with distance education since they are offered in the evening and again there is no separation between the teacher and the learner in terms of time and space. To establish the extent to which level of awareness of educational managers about DL mode of delivery mode influences their support for DL mode of delivery in Western region, the following null hypothesis was tested.

H₀: There is no association between levels of awareness of educational managers about DL mode of delivery and support they accorded to DL mode of delivery.

Table 4 shows a close-tabulation of the educational managers' awareness about DL mode delivery and support

they accord to distance learning mode of delivery.

Table 4: Cross Tabulation of Awareness Status and Support Accorded to Distance Education Mode of Learning

		Support Status		
		Non-Supportive	Supportive	Total
Level of awareness	Aware	127	183	310
	Not aware	166	133	299
Total		293	316	609

Chi –square obtained from the data in Table 4.14 was 10.862 while the critical χ^2 at (n-1)*(n-1) 1 degree of freedom with 0.05 level of significance was 3.4. Since the χ^2 calculated is greater than the critical value of χ^2 then the null hypothesis was rejected. Therefore, the null hypothesis that there is no association between awareness about DE mode of learning and the support that educational managers accorded to DE mode of learning is rejected and the alternative hypothesis was retained.

The alternative hypothesis was that “There is a relationship between awareness and the support that educational managers’ in Western Region accorded to DL mode of delivery”. These results concur with the result of a study by Gakuu (2007, which concluded that campaign to sensitize university lecturers about DL had yielded some positive results as far as their readiness to adopt DL mode of delivery was concerned. Those that were more aware about DL mode were more ready to adopt the mode of training than those who were not. Dillon and Walsh (1992) also established that faculty teaching at a distance are positive towards such teaching and their attitudes tend to improve with experience. Clark (1991) concurred with other scholars when he established that familiarity and previous experience were moderately predictive of respondents’ receptivity to distance learning mode of delivery. This is further supported by the argument by Zajonc (1968) that the more contact people have with something or somebody, the more they like them or the more they are positive towards them or to the object. This was referred to as mere exposure effect and it supports the idea that those who had some experience with DE mode of training, were more receptive than those who had no experience at all.

According to Gakuu (2007) and NEA (2000) attitude towards DE was more favourable among those who had taught in DE programmes. In the study by NEA in (2000) 72% of the instructors who were familiar with DE mode of training, were positive about DE compared to those who were not familiar (51%) and who were negative. Another study conducted by Inman and Kerwin (1999) revealed that those who had experience of teaching DE programmes were more willing to participate in distance education programme courses. However, when they were asked about the quality of DE, about 50% of the instructors thought that the quality of the distance education course when compared with a traditional course was lower. Seibold (2007) later conceded that personal experience with online education influenced employers in their decisions to hire or not to hire a DE graduate as compared to a graduate from a traditional system. Studies by Guendoo (2007; 2008) also yielded similar results that exposure influenced support for distance instructional mode. In that study, Guendoo (2007) involved 52 administrators of the largest 145 community colleges in the United State of America and concluded that the gap between those with positive attitudes and those with negative attitudes would close over time due to exposure. Negative attitude was associated with lack of exposure. It has been argued that attitudes influence behavior though not always (Schiftman and Kanuk, 2004).

In this study, awareness about DL mode of delivery which included participation in DL programme had a significant relationship with support for DL mode of delivery. This implies that awareness which has been proved to influence attitude also influences action or behaviour (Kotler, 2003). In yet another study by Clark (1993) amongst university lecturers it was shown that lecturers who were knowledgeable about DE programme embraced the programme more readily than those who were not. Other studies whose findings concurred include those of Black (1992), Heath (1996) and Betts (1998). These studies revealed that there is a relationship between the levels of lecturers' knowledge in DE with their readiness to adopt D.E programme. Malley (1999) also concluded that prior knowledge or the level of familiarity lecturers have in distance education enhanced their adoption of DL mode of teaching and learning. These results suggest that there is a relationship between level of awareness about DE and support that one is likely to offer to DE mode of learning.

RECOMMENDATIONS

Following the findings of the study the following recommendations were made:

- Universities and other institutions training teachers and other education officers should introduce compulsory DE course units in their syllabus aimed at exposing students, especially those taking educational courses in DE mode of learning, to its applicability and its suitability. This will increase the level of awareness about DE amongst educators which has proved to be a determinant factor on support offered to DE mode of delivery. These graduates, hopefully, will in turn advise their students and general public on availability of D.E mode of learning options at the universities, its strengths and weaknesses. Awareness creation will increase support for D.E and therefore increase demand for DE this will in turn lead to reduction in competition for face – to - face mode which seems to be the only approved and highly appreciated mode of learning in Kenya as per now. When offered the option of DE as a means of pursuing their quest, students can choose solely on the merits, demerits and quality of the program offered, without fear that DE will hinder their employability. There is need for an official notification, clarifying the issue of recognition of academic qualification earned through distance mode for the purpose of employment.
- The government should also show its commitment to DE mode of learning. A clear policy by the government on the quality of distance education programmes need to be developed. Debate exists concerning the quality of graduates from DE programmes, but the government of Kenya seems to have been quiet about this. It is therefore important for the government to develop a policy statement disapproving or approving DE Programmes. A policy statement on the quality of DE graduates will give confidence to the training institutions as well as prospective students. This will lead to the increase in enrollments, thus benefiting from economies of scale which will translate to lower unit cost. The saving will be of beneficial to both the students and the country as a whole.
- The government should establish and fully support one institution of higher learning to offer DE Programmes. This will reduce the cost of education as a result of the benefits of economies of scale. As observed earlier public Universities offering programmes through distance mode, operate in isolation, resulting in operational problems such as unnecessary competition, lack of support for each other and unnecessary duplication of activities. If support was given to institutions with comparative advantage in various disciplines, it would lead to increased enrollment due to reduced competition, improved quality and reduced costs associated with economies of scale.

Economies of scale bring about lower unit costs and which in turn will be beneficial both to the students through lower charges per unit translating to reduced fees and to the Government, through saved government revenue. Economies of scale are cost advantages that a business or institution can exploit by expanding their scale of production. If single learning institution was established, then the institution would benefit from technical economies of scale, where the institution can invest in expensive and specialist capital, financial economies of scale, division of labour economies of scale and also marketing economies of scale. All these economies of scale are applicable to DE offering institutions because of the production and distribution of learning materials involved, all of which follow the normal production process. Thus, an institution benefits when it purchases its inputs in bulk at negotiated discounted prices, since a large institution has sufficient negotiating power in the market. Likewise, the machine used in production will also be put into maximum use while finance will also be made available from financial institutions at discounted rates.

REFERENCES

1. Bowa, O. (2008). *The influence of Learner support services on academic performance of distance learners: The case of University of Nairobi external degree programme in Kenya*. Unpublished thesis. University of Nairobi
2. Bradford, S. (1999). The effectiveness of traditional instructional methods in an online learning environment. *Dissertation Abstracts International*(60): 200.
3. Braimoh, D & Lekoko, R (2005). *The Need for Policy Framework in Maintaining Quality in unolt and Distance Education Programme in Southern Africa*:Turkish online journal of Distance Education - TOJDE October 2005 isbn-1302- 6488 vol.6 no.4: 9.
4. Capper, J., & Fletcher, D. (1996). Effectiveness and cost-effectiveness of print-based correspondence study, A paper prepared for the Institution for Defense Analysis.
5. Caslyn, R. J and Winter, J. P(1999). Understanding and controlling response bias in Need assessment. *Eval. Rev* 23:399-417
6. Clark, T. (1991). *Distance education: The foundations of effective practice*. San Francisco. Jossey-BassPublishers.
7. Clark, T. (1993). *Attitudes of higher education faculty toward distance education: A National Survey*. *American Journal of Distance Education*, 7(2), 19-33.
8. Cooper, R. D and Schindler, P. S (2008). *Business research methods*. McGraw-Hill, Singapore.
9. Daniel, J. S. (1996). *Mega Universities and Knowledge Media: Technology Strategies for Higher Education* (London: Kogan Page).
10. Daniel, J. S. (2003). *Education for all and the role of open and distance learning, the global Scenario, food health and education for all: The role of distance learning*. Nashik, India: Yashwantrao Chavan Maharash Traopen University.
11. Daugherty, M., & Funke, B. (1998). University faculty and student perceptions of Web-based instruction. *Journal of Distance Education* 11(1): 21-39.
12. Dillman, D. A (2000). *Mail and Internet surveys: The tailored design method*. New York: John Wiley

13. Dillon, C. L., & Walsh, S. M. (1992). Faculty: The Neglected Resource in Distance Education. *The American Journal of Distance Education*, 6 (3), 5-21.
14. Journal of Professional Nursing. Gakuu, C. M. (2006). Analysis of factors and attitudes that influence lecturers readiness to
15. To adopt distance education and use of ICT in teaching: the case of the university Of Nairobi. Unpublished Phd thesis.
16. Garrett, H. E (2004). *Statistics in Psychology and Education*. Paragon International Publishers. New Delhi.
17. Grandy, J. (1998) Response bias in a survey of Asian-American and White science and Engineering students. *Women minor science engineering*, 4:1-13.
18. Hall, P. (1996). Distance education and electronic networking. *Information Technology for Development*. Amsterdam: October 1996 vol 7, Iss.2, P.75-89.
19. Harting, K. and Erthal, M. J (2005). *History of distance learning*. Information Technology, learning and performance journal. Morehead: Spring 2005. vol23, Isbn.1 P.35-44.
20. Harry K & Perraton H. (2003) "Open and distance learning for the new society." In K. Harry (Ed) *Higher education through open and distance learning*. New York, Routledge
21. Hawkrige, D. G. (1974). *The Open University in the third world*. Paper presented in centor's conference in Tehran, January 1974.
22. Heath, C. (1996). *Faculty attitudes towards distance education and use of instructional Technology (atas talian)* <http://www.syllabus.com/syll99-Proceedings/FACUL.HTM>. (13th July, 2000) Hearn, J. (2006). "Alternative revenue sources," In D. Priest & E. P. St. John (Eds) *Privatization and Public Universities*, 87-108, Bloomington, Indiana University Press.
23. Hiltz, S. R. (1994). *The virtual classroom: Learning without limits via computer network.*, Norwood. NJ: Ablex Publishing Corporation.
24. Hossain, S. I & Psacharopoulos, G (1994) *The profitability of school investments in an Educationally advanced developing countries*. *International journal of educational development* Vol.14 (1), P 35-42
25. Jonassen, F., Previs, T., Christy, D., & Stavroulaki, E. (1997). Learning to solve problems on the Web: Aggregate planning in a business management course. *Distance Education* 20(1): 49-63.
26. Krosnick, J. A. (1999). Survey research. *Annu. Rev Psychology* 50:537-567.
27. Krosnick, J. A., & Petty, R. E. (1995). Attitude strength: an overview. In R. E. Petty, & J.
28. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 1-24). Hillsdale, NJ: Erlbaum.
29. Lukoye, A. (2008). *Mushrooming campuses alarming in Daily Nation*. Nairobi: Nation Media Group, November 20, p.11

30. Manjulika, S. and Reddy, V. V. (1996). *Distance education in India: A model for developing countries*. New Delhi Vikas.
31. Mboroki J. G, (2007). *A Comparative study of performance in teaching practice between the bachelor of education (arts) on campus students and distance study students: the case study of the University of Nairobi*.[/ojdla/spring71/meyer7/html](#). Ministry of Science and Technology (2004). *Development of Education in Kenya*
32. Government Printers. Moore, M. G., & Thompson, M. M. (1997). *The effects of distance learning: Revised edition*, ACSDE Research Monograph, 15, Penn Sate University.
33. Morrissey, C. A. (1998). *The Impact of the Internet on Management Education: What the Reason Shows*, Peperdine University.
34. Mwiria, K. and Mulati S. (1994). *The Management of Double Intakes: A Case Study of Kenyatta University*. IIEP Research and Studies Programme: Improving the 14th Edition. *Managerial Effectiveness of Higher Education Institutions*. Paris: International Institute for Educational Planning (UNESCO).
35. Mwongera, N. and Faida, J.(2010) *Continuing Education Students Challenges: A case of Tumaini University, Iringa University College*. Daystar Journal of Developing
36. *Continuing Education in Africa*. Daystar University :NairobiOfoha,D and Awe,B.(2011). Perception of academics on quality assurance of academic programmes at the national open university of Nigeria. *Journal of continuing, open and distance education*,1(2),51-70
37. Malley, J. and McCraw, H. (1999). *Students Perceptions of Distance Education*, *Online learning and the traditional classroom*. *Online Journal of Distance education administration*, 2 (4).
38. Paker, D., & Gemino, A. (2001). Inside online learning: Comparing conceptual and technique Learning performance in place-based and ALN format. *Journal of Asynchronous Learning Networks* 5(2): 64-74.
39. Paskey, J. (2001). A survey compares two Canadian MBA program, one online and one traditional. *Chronicle of Higher Education*.
40. Peters, O. (1988). *Distance teaching and industrial production: A comparative interpretation in outline*. In *Distance education: International perspectives*, ed. D. Sewart, D. Keegan, and B. Holmberg, 95113. New York: Routledge Potashnik, M. & Capper, M. *Distance Education; Growth and Diversity*. Finance and Development. March 1998.
41. Psacharopoulos, G. & Woodhall, M (1985). *Education for development: Analysis of investment choices*. New York: Oxford University Press.
42. Rambo,C. M and Odundo,P. A(2010). Financing practices adopted by distance learners:The case of bachelor of education (Arts) University of Nairobi, Kenya:*Journal of continuing, open and distance education*,Vol1,issue1Jan,2010:University of Nairobi.
43. Republic of Kenya (1988). *Report of the Presidential Working Party on Education and Manpower Training for the Next Decade and beyond*. Nairobi: Government Printer.

44. Republic of Kenya (2005). *Kenya education sector support programme 2005-2010: Delivering Quality Education and Training to All Kenyans*. Government printers, Nairobi.
45. Robinson, B. (1995). *Research and Pragmatism in learner support*. In F Lockwood (ed), open and distance learning today.p.221-231, London: Routledge.
46. Sahoo (1993). *Higher education at a distance*. New Delhi: Samchar publishing house.
47. Shutte, J. G. (1998). *Virtual Teaching in Higher Education*. California State University, Northridge.
48. Thairu, H. (2010). *Keynote Address*. Developing Continuing Education in Africa. Nairobi: Daystar University.
49. UNESCO (2003). *Financing Universities in developing countries*. Paris:UNESCO
50. Tsang, M. (1988) Cost analysis for educational policymaking: A review of cost studies in education in developing countries. *Rev. Educ. Res.* 58(2): 81-230
51. University of Nairobi (2005). *Strategic plan, 2005-2010: Towards world class excellence*. Nairobi: University of Nairobi press.
52. Wagner,J.(1977). *Misfits and Missionaries: a school for black dropouts*. Beverly Hills. Sage publications.
53. Williamson, J. (2009). *The history of Distance Education*. <http://www.distance-education.org/Articles/The-History-of-Distance-Education>.
54. World Bank (2003). *Case Study on financing higher education in Tanzania*. Washington D. C.: World Bank D. C.: World Bank
55. Yamane, T (1967) *Statistics: An introductory Analysis* :2nd edition. New York Harper and Row.
56. Zajonc R. B. (1980) *Feeling and Thinking Preferences need no inferences*. *American Psychologist* 35, 151-157

