

Investigating factors affecting distance education administration: A study in higher education in Mauritius

Ngowari Uchechi Kamalu^{1*}, Renu Mishra²

¹Grine American University, Cyprus; wealtee@gmail.com (N.U.K.).

²Gulf American University, UAE.; Renumishra.52@gmail.com (R.M.).

Abstract: This study investigates factors affecting higher education administration in Mauritius, with a focus on challenges faced by students at The Open University of Mauritius. The study aims to identify key barriers to effective learning and propose strategies to improve student support systems. A survey research design was adopted, utilizing an online questionnaire to collect data. The study targeted students who are or were enrolled at The Open University of Mauritius. A total of 200 responses were received, with 163 valid responses analyzed using SPSS 16.0. Frequency distributions and descriptive statistics were employed to validate data accuracy. The results indicate that major challenges for distance learners include a lack of time, limited interaction, and insufficient counseling support. These factors negatively impact student engagement and learning outcomes. The study underscores the need for enhanced student support mechanisms, particularly in terms of interaction and counseling services. Addressing these challenges can improve student retention and academic success. The study recommends refining admission criteria to ensure that students possess essential technical skills, particularly in computer usage. Additionally, higher education institutions should implement strategies to improve learner engagement and support systems in distance education.

Keywords: Distance education, Distance learners, E-Learning, Higher education administration, Open University of Mauritius, Student support, Technology in distance education.

1. Introduction

The demand for education is increasing worldwide. People want to know more and want to get certified. Apart from this individual demand for education, organizations want more out of their employees and so demand that they improve on their knowledge and skills. They even go the extra mile to send them on trainings, whether short or long term so as to improve their performance as a way to improving the value of their organization. While the young and unmarried are more attracted to conventional forms of education which involves direct teacher-learner interaction, people who are older or married, with or without children, who are employees with responsibilities are not attracted to a full-time educational pursuit as offered in conventional schools. It is the need to aid such people to acquire some desired level of education that led to the establishment of distance learning institutions.

Distance education is the physical separation of teachers and students during instruction and the use of various technologies to foster student-teacher and student-student communication which are also the main elements of distance learning, e-learning, and online learning [1]. The main target audience for distance learning are typically learners, who are unable to attend lectures in a classroom, such as full-time workers, adult learners, military personnel, nursing mothers, or persons who live in remote places, usually because of their work schedules or physical distance from the University.

As at today, we have witnessed a phenomenal growth of distance education institutions and systems all over the world. These institutions have drastically altered the higher education scenario by replacing

conventional teaching methods with technology driven resources. Today, many distance education providers at the tertiary level are currently in Africa, India, New Zealand, Canada, Australia, Japan, the UK, and the USA and they offer distance education services to learners. Distance education at the tertiary level uses three major components such as lecturer, learner, and media [2]. The cementing lifeblood of this trio is the administration. This system seeks to decentralize education at the tertiary level and provides access to learning to a wider segment of the population without having all the learners and tutors in one place. Unlike traditional classroom learning, distance education at the tertiary level requires a relatively complex administrative setup especially owing to the physical distance between learners, lecturers, and program administrative structure. Because of the complexities in the process of providing educational services, it faces hurdles and blocks while imparting knowledge to learners and this original search is an attempt to explore the major factors facing the administration of distance learning in Mauritius at a higher education level. Thereby, this study is not only an attempt to identify the challenging factors impacting distance education administration however this is also an attempt to address and find out the ways to address these obstacles.

The key paradigm includes teacher, learner situation, and participation in education, curriculum, cost, learning process, knowledge, and communication process [3]. Studies conducted by Pokaichuk, et al. [4] and Esra and Sevilen [5] highlighted various factors that affected distance learners, for example, student's involvement in their jobs, lack of time, no support for assignments, lack of student activities and inadequate assignments for communication between teachers and learners. Another example is Gloria and Uttal [6] who highlighted the difficulties experienced by students regarding the instructional materials, assignments, and inability to understand study materials. In recent years distance education has grown constantly in many parts of the world.

Gaskell and Mills [7] submitted that distance education started from about 1728 with correspondence courses. In the UK, the Open University was introduced in 1969 to blend learning. Its main selling points are her open admission policy, flexible learning options, Supported Learning Environment, Research and Innovation as well as recognition of the Degrees and qualifications earned from her programmes. In fact, Choi and Kim [8] opines that the British Open University is recognized world over to be the most innovative university which has been in the fore front in developing most of the research in distance learning. The success recorded by the British Open University led to the establishment of such universities in the USA, India, Turkey, China and even Japan.

In USA, before the establishment of the formal distance learning institutions, Ticknor [9], founded a society which encouraged studies at home especially for women through correspondence instruction. This was successfully done over a 24-year period for over 10,000 members [10]. In Africa, The South Africa University (UNISA) is one of the pacesetters in distance education. It began offering correspondent based courses since 1946) and her successes encouraged other African nations such as Zimbabwe, Tanzania and Nigeria to set up their own open universities [11].

In Mauritius, distance education is relatively new. The main public institution which runs distance learning programs in Mauritius is the Open University of Mauritius. According to the information on her website, it was established by Parliament with the Open University of Mauritius Act in 2010 and formally took off on 12 July 2012. As at the time of this research, the University has run consistently for slightly over ten years. The headquarters of the University is at Réduit while its main study center is at Forest-Side, Curepipe where she also hires other buildings as study centers. Another study center which was started in 2019 is located in Rodrigues and the University plans to establish other study centers in Africa. As at 2016, enrollment at the Open University was 3,578 students, this number ranking second among the four Public Funded Institutions in the country with the first being University of Mauritius which witnessed the enrollment of 9,671 students. As at 31 December 2017 however, the enrollment at the Open University had grown to 5,741 students.

Through open and distance learning (ODL), the Open University of Mauritius aims to increase access to high-quality higher education at a reasonable cost and with a lot of flexibility. The University offers

courses in a variety of subjects, including PhD, masters, undergraduate and certificate programs in addition to employability skills and other courses.

1.1. Statement of the Problem

Access to education is a basic human right. In fact, the Sustainable Development Goals (SDG) 4 places emphasis on inclusive education for all. In order to pursue this, the Mauritius Government funds four institutions at tertiary level. They include University of Mauritius, University of Technology, Mauritius, Open University of Mauritius and Universite des Mascareignes.

While each of these academic institutions have their own peculiar challenges, the Open University of Mauritius is still an infant institution and is experiencing several challenges in her bid to provide distance learning services to students. It still has a long way to go about in answering the growing needs of learners. Various hurdles stand as obstacles to distance education administration at the tertiary level in Mauritius.

Many problems pertaining to distance education in Mauritius include inadequate physical and technological infrastructure, inadequate financial resources, difficulty in the mode of delivery, inadequate teachers, high cost of printing course materials, isolation of learners and constraints on the application of multi-media.

Over the years, there has been a growing concern amongst the distance education administrators at higher education in Mauritius regarding the declining number of pass rates. According to the education statistics at higher education in Mauritius findings by Statistics Mauritius, Statistics Unit, Ministry of Education, Tertiary Education, Science and Technology (2022), reveal that distance education dropouts were high among students enrolled in tertiary education, with 71.2%.

While distance education at higher education level has been found to be a key instrument for the holistic development of a country, the decline in the pass rate in distance learning programmes in Mauritius is a threat to raising the people that will drive national development. Some other major problems faced by learners who have enrolled for distance education are isolation, drop-outs, lack of student support, inadequate learning environment, lack of quality counselling, poor printed materials, difficulties to face both study and personal commitments, lack of communication between the teacher and learner, lack of access to communication technology, rising cost in distance education and lack of comprehension regarding the assignment.

Many students who are studying through distance education complain that they feel isolated from the teacher and other students. This isolation leads to dropouts. Many distance learners complain that they do not get enough support, quality counselling and access to modern communication technology. The lack of a conducive learning environment is another root cause of student dropouts.

While there have been several studies on the factors affecting distance learners, there is paucity of data on the factors affecting the delivery of expected results from the administrative angle. The lack of substantial empirical evidence showing the critical factors influencing the delivery of distance learning in higher education level in Mauritius is what this study sought to explore

The main objective of navigating the background of the phenomenon of distance education was to formulate a clear problem statement for this study. The research, therefore, focuses on the principal research problem to be explored and answered by this thesis, namely.

1.2. Purpose of the Study

The study investigated factors affecting distance education administration at the higher level in Mauritius. Specifically, the study achieved the following:

- i. To identify the factors affecting distance education administration at the higher level in Mauritius.
- ii. To identify the ways to overcome the obstacles in distance education administration at the higher level in Mauritius.

1.3. Research Questions

In line with the purpose and specific objectives of the study, the following research questions were asked:

- i. What are the factors affecting distance education administration at the higher level in Mauritius.
- ii. What are the possible ways to overcome the obstacles in distance education administration at the higher level in Mauritius?

2. Methods

The study adopted a survey research design. The study population include a group of individuals who share common characteristics such as age, sex, purpose, or health condition. The population of this study consisted of all students who are or were enrolled in The Open University of Mauritius. The sample size for this study was the total number of eligible responses from the online survey. The online survey attracted 200 responses but 37 of them were not eligible because they were neither staff nor students (past or present) of the Open University of Mauritius. The final sample size was therefore 163. The study utilized an online questionnaire to gather the responses relevant for the study. The questionnaire is made up of 35 main items and divided into 2 sections. The first section seeks demographic data of the respondents while the second section seeks information of the respondents' view of distance education at a higher level in Mauritius. In addition, the second section contained closed, semi closed and open-ended questions. The answers to the closed ended questions are ranked on a 5-point Likert scale with 1 being the least and 5 being the most. The semi-closed questions were yes or no questions with the option of explanations while the open questions required the respondents to be open about their views. A pilot test was carried out online, on learners for one week and relevant changes were made before finalizing the questionnaire. The survey was then administered over a period of 4 weeks and responses were collated and analyzed. The data collected from all respondents were analyzed using SPSS 16.0 version quantitatively for the closed questions. Frequency distributions and descriptive statistics were used to check the correctness of the entries analysis because the techniques are capable of indicating data that are out of the expected range of possible entries.

Table 1a.
Demographic Characteristics of Respondents.

1	What is your age?		
	Age range	Frequency	Percentage
	18 to 30 years	40	25%
	31 to 50 years	107	66%
	51 to 60 years	11	7%
	61 and above	5	3%
	Total	163	100%
2	Gender		
	Sex	Frequency	Percentage
	Male	102	63%
	Female	61	37%
	Total	163	100%
3	Marital Status		
		Frequency	Percentage
	Single	58	36%
	Married or Living with a partner	83	51%
	Other	22	13%
	Total	163	100%
4	Current Educational Level		
		Frequency	Percentage
	Secondary	57	35%
	Diploma	32	20%
	Bachelor degree	33	20%
	Post graduate degree	21	13%
	Professional qualification	20	12%
	Total	163	100%
5	Which one best describes your relationship with the University?		
	Status	Frequency	Percentage
	Staff	15	9%
	Currently studying?	109	67%
	Recent graduate	39	24%
	Total	163	100%

3. Analysis and Results

3.1. Demographic Characteristics of Respondents

The demographic characteristics of the respondents are presented in Table 1 below. From Table 1a, number 1 above, which depicts the demographic characteristics of the respondents, 40 (25%) of the respondents were between 18 to 30 years of age while a majority of 107 (66%) were between 31 to 50 years of age. Those between 51 to 60 and 61 and above years, form a negligible 11 (7%) and 5 (3%).

Moreover, Table 1a, number 2 shows that 102 of the respondents, representing 63% of the respondents were of the male gender while the remaining 61 (37%) were female.

On marital status, as seen in Table 1, number 3, 58 (36%) of the respondents were still single while the majority of 83 (51%) were married. the remaining 22 (13%) were either divorced or single parents.

On current educational level, as Table 1a, number 4 shows, a majority of 57 respondents, representing 35% were holders of secondary school results and obviously pursuing education at a higher level. Of the others, 32 and 33 were diploma and Bachelor's degree holders already while 21 (13%) and 20 (12%) were post graduate degree holders and professionals respectively.

Furthermore, Table 1a, number 5 shows that 30 respondents, representing 18% are workers in the education sector while the larger majority of 133 (82%) work in other sectors.

Table 1b.
Demographic Characteristics of Respondents.

6	Do you work in an Institution? (Secondary, vocational or university).		
		Frequency	Percentage
	Yes	30	18%
	No	133	82%
	Total	163	100%
7	Nationality / Citizenship		
		Frequency	Percentage
	Mauritian	152	93%
	Non-Mauritian	11	7%
	Total	163	100%
8	Do you currently work OR live in Mauritius?		
		Frequency	Percentage
	Yes	156	96%
	No	7	4%
	Total	163	100%
9	Occupation / Employment		
		Frequency	Percentage
	Employment Status		
	Unemployed	7	4%
	Retired.	9	6%
	Self-employed.	27	17%
	Government employed.	90	55%
	Private sector employed.	30	18%
	Total	163	100%
10	Where is your current region of residence/house in Mauritius?		
		Frequency	Percentage
	Location		
	Flacq	19	12%
	Grand Port	10	6%
	Moka	24	15%
	Pamplemousses	15	9%
	Plaines Wilhems	17	10%
	Port Louis	32	20%
	Rivière du Rempart	15	9%
	Rivière Noire	14	9%
	Savanne.	10	6%
	Outside Mauritius	7	4%
	Total	163	100%
11	How many years have you been in Mauritius?		
		Frequency	Percentage
	Less than 5 years	5	3%
	5 to 10 years	33	21%
	More than 10 years	120	76%
	Total	158	100%

Also, Table 1b, number 6 shows that 15 (9%) of the respondents are members of staff of the Open University of Mauritius while 109 (67%) of the respondents were currently studying at the university and 39 (24%) of the respondents were once students of the university.

In addition, Table 1b, number 7 also shows that 93% of the respondents were Mauritians while only 7% were non-nationals of Mauritius. Also, Table 4.1, number 8 shows that 96% of the respondents live or work in Mauritius while 4% do not. On employment status, Table 1, number 9 indicates that 90 (55%) of the respondents are civil servants while 30 (18%) work in the private sector. of the others, 17% were self-employed while 6% and 4% were retired and unemployed respectively.

In addition, Table 1b, number 10 indicates that most of the respondents- 32 (20%) live in Port Louis, 24 (15%) live in Moka and 19 (12%) live in Flacq. All the others, apart from 7 (4%) who live

outside Mauritius live in others parts of the country such as Pamplemousses, Plaines Wilhems, Rivire Noire and so on.

Finally, Table 1b, number 11 shows that of all the 158 respondents that live in Mauritius, a majority of 120, representing 76%, have lived in Mauritius for over 10 years while 21% have lived above 5 years. Only 5 (3%) have lived in Mauritius for less than 5 years.

3.2. Research Question 1

What are the factors affecting distance education administration at the higher level in Mauritius?

Table 2.

Mean and standard deviation of responses on factors affecting distance education administration at the higher level in Mauritius

S/N	Statement	X	Sd	%
1.	The study materials given in distance education at a higher level are quite easy to understand	3.06	1.393	69
2.	Communication Technology has a great impact on distance education at a higher level?	4.3006	.82503	86
3.	I have excellent computer skills	3.4417	1.28187	69
4.	I have good access to internet facilities	2.8344	1.26815	57
5.	The tutors are very much in tune with modern technology	3.73	1.406	75
6.	The physical environment is not conducive	3.11	1.478	62%
7.	Lighting unsatisfactory	2.72	1.411	54%
8.	Inadequate desks and chairs	3.25	1.119	65%
9.	Insufficient ventilation	2.60	1.265	52%
10	Insufficient security for personal belongings	4.02	1.119	80%
	Grand Mean			

Table 2 above shows the mean and standard deviation of responses on factors affecting distance education administration at the higher level in Mauritius. Item 1 had a mean value of 3.06 and standard deviation of 1.393. this implies that 61% of the respondents agree that the study materials are not too hard to understand. Item 2 had a mean value of 4.3 and standard deviation of 0.825, this implies that 86% of the respondents agree that the impact of ICT on the learning process. Item 3 had a mean value of 3.44 and standard deviation of 0.825, this implies that 69% of distance learners are computer literate. Item 4 had a mean value of 2.83 and standard deviation of 0.825, this implies that 57% of the respondents had access to good internet facilities. Item 5 had a mean value of 2.83 and standard deviation of 0.825 this implies that 75% of the tutors have adapted to the modern technology which is crucial for distance education.

3.3. Research Question 2

What are the possible ways to overcome the obstacles in distance education administration at the higher level in Mauritius?

Table 3.

How to Make Distance Education Administration at the Higher Level in Mauritius More Productive.

Major Group	S/N	Respondents statements
Make the study centers more engaging	1	Employ more tutors
	2	Make tutorials more regular
	3	Install infrastructure
Play down on flexibility	1	make attendance at tutorials more compulsory than optional
	2	Reduce the period for interruption of studies
	3	Make attendance at induction session compulsory
Relax the financial burden	1	Make fees more affordable
	2	make payment fees more flexible

From Table 3, three themes were prevalent in the suggestions that could make distance learning at higher level in the Open University of Mauritius effective. They are, 'Make the study centers more engaging', 'Play down on flexibility' and 'Relax the financial burden'.

4. Discussion of Findings

The focus of this research is to find out the factors which are undermining the capacity of the Distance Learning Institutions, especially, the Open University of Mauritius to deliver, especially from the administrative point of view.

On the understandability of the course materials as depicted in item 1, 61% is above average, but the 39% that do not find the course materials understandable are a significant number whose potential failure or dropout impacts negatively on the administrative effort. Since the students will have to spend more time alone studying it will have a positive effect against learners failure and attrition if the course materials become more comprehensible.

Item 3 to 5 which deal with the IT readiness of learners and tutors indicated that a great majority of the respondents (86%) agree that ICT is a necessity for successful outcomes in distance learning. This implies that both learners and tutors have to adapt to the new normal where the use of ICT is non-negotiable. All over the world today, it is clear that ICT is a major facilitator of distance learning (Zarei & Mohammadi, 2022). This shows that lack of ICT skills can lead to high failure and drop-out rates among those who are ICT non-compliant. In the light of this, having as much as 31% of learners and 25% of tutors not proficient in the use of ICT may not be a good sign. It means that some of the hands retained among the staff and some students who are admitted are not proficient in the use of the new technology which has become the new normal. In fact, the 31% of learners that are not proficient in computer usage indicates a high risk of failure and dropout which is not good for the rating of the system. Also 25% of tutors will not be able to interact effectively with students except only on face to face basis which cannot be a reality all the time.

On the reason why people opt for distance learning because of career potentials, the implication here is that most of the learners, mostly, government workers need certifications to maximize their career opportunities and this becomes the motivation to enroll in distance learning. The need to increase knowledge ranked third after the need to build relationships. Most of the responses which favoured the need for knowledge came from the unemployed respondents between the ages of 18 to 30. This shows that age is a major determinant of priorities. While the younger go for knowledge, the older and employed need certifications to advance their career opportunities

The responses to item 7 indicate that the main problems of distance learners are more at a personal level- Lack of time (4.07) and Lack of interaction (3.93) even though the lack of counselling and lack of facilities are also a part of it.

The responses to item 8 indicate that the study centers are inadequate in almost every area. This will definitely discourage learners from coming around and this has a negative effect on their level of interaction with each other and the tutors.

Item 9 and 10 are so closely related and the implication of the responses is that a distance learner who does not attend the induction session will not benefit from the first counselling that will give the insight as to how the distance studies are run and this will have a negative ripple effect on the student throughout the course of the study. His ignorance of the counselling facilities and tutors' roles will make the student to carry burdens that could have been lightened by taking advantage of the administrative processes put in place by the institution.

Apart from that, they get to develop relationships with tutors and study colleagues which can give birth to collaborative learning. As Appavoo, et al. [12] also finds out, most collaborative learning sessions are held after tutorials on Saturdays. In other words, those who attended tutorials regularly were more likely to engage in collaborative learning than those who do not attend tutorials. As the learners come together to interact and study, they can learn from each other, encourage and challenge one another to perform better and greatly reduce the rate of failure and drop-outs.

On suggestion that could better the system, in order to make the study centers more engaging, the respondents suggested that

First, more study centers be created and more tutors be employed and posted to the various study centers to facilitate tutorial classes for the learners. The respondents suggested that making the University campus at Curepipe the main center for tutorials is not comfortable for all students. This is more serious when you consider the fact that only about 25% of the students come from Moka and Plaines Wilhems, where the Curepipe campus is located.

Second, the respondents suggested that tutorials should be made more regular as this will create an anticipation in the mind of the students. They explained that ability to access and engage with tutors will help to bridge the gap in the understanding of study materials

Third, in order to make the study centers more engaging, the University has to install relevant infrastructure in all the study centers. These include computer centers, libraries as well as classes. This infrastructure will encourage students to come around and the feel of a school environment will boost learning.

The second major suggestion was to play down on flexibility. Under this, they made three major suggestions viz:

First, make attendance at tutorials more compulsory than optional. They opined that instead of leaving attendance at tutorials completely optional, the authorities should make some fraction of total tutorials compulsory, to force students to engage with tutors. Many of the respondents explained that this will reduce the failure and drop-out rate. As important as this may be however, the cost and distance of transportation for most students who live outside Moka and Curepipe must be put into consideration as seen in Figure 5.

Second, they suggested that the period given to students for interruption of studies be reduced. they explained that allowing the student to have his/or her studies interrupted for 2 semesters and another 2 semesters at another time is enough for lack of interest to infest the drive to excel or even to finish.

Third, they suggested that attendance at induction session be made compulsory. This will help to inform the learners about the mode of learning at the university so they can brace up for what it takes.

The third major suggestion was to relax the financial burden on the students. They suggested that the authorities make the fees more affordable and also make the payments even more flexible.

5. Conclusions

Distance education is a cutting-edge idea that is transforming lives all over the world. It is an idea that ensures that people who do not have the chance to set all aside to pursue conventional education can still get education and certification while they are working. The main objectives of this current study were to determine the factors affecting distance education administration at higher level and to find probable workable solutions that could mitigate them.

In order for distance education at a higher level to be successful, several structures and processes need to be put in place and set to run efficiently. From this study, several Institutional factors were identified as part of the reasons for inefficiency of the system which has a negative effect on students' success outcomes. These include Environmental Factors, Over-Flexibility of the System, Inadequacy of Study Centers, Tutors and Tutorials as well as the need to further simplify the study materials. Though not directly an administrative issue, some student factors which could also have administrative leanings such as Lack of Time and Lack of interaction among students and tutors were also pointed out. Finally, respondents suggested ways that these administrative challenges could be mitigated such as making the study centers more engaging, playing down on flexibility and reducing the burden of fees.

6. Recommendations

From the findings, we hereby make the following recommendations

- i. The admission of students ought to be controlled in a way that only those who have the necessary technical skills, especially use of the computer be admitted.

- ii. All students must be made to attend the induction session at registration so that no one will claim ignorance about the services available concerning distance education at a higher level.
- iii. The institution should conduct further research into the quality of course materials to see what needs to be reviewed and updated as the case may be.
- iv. More funds should be allocated to the university to be utilized in expanding physical and technological structures to facilitate more interaction between the teaching and learning process.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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