

Transforming to University of Future (UoF): A Conceptual Model from the Somali Perspective

Abdikadir Yusuf Mohamed, Nuradin Ibrahim Hassan, Abdul Rahman Ahmad Dahlan

Abstract— The purpose of this paper is to propose a conceptual model to transform the current higher education in Somalia into the University of the Future (UoF). This paper will focused how to enhance the ICT in order to improve the level of higher education. However, the current problem of higher education in Somalia is the low ICT qualities especially the ICT infrastructure and the services that education sectors such as online platforms. In addition, the internet access in higher education causes another main problem of communication among students and lectures outside of class. This research will conduct a postal methodology and will distribute a questionnaire using the Business model canvas and Value Proposition Design frameworks were selected as the primary research instrument in order to gain a broad needs and demands for UoF, to a spectrum of universities in Somalia. From the questionnaires analysis and findings, this paper proposes a new business model canvas (BMC) and value proposition design (VPD) to implement the conceptual UoF model.

Index Terms— University of Future, HE, Somalia, Business Model Canvas, Value Proposition Design

I. INTRODUCTION

A human improvement, in grouping with the network, internet, and communications technologies has produced new platforms for social, education, business and also education. That is why the technology keeps changing day by day and the market also depending on it. Technology markets often exhibit extreme path dependency because it is enabling the random or idiosyncratic events to have dramatic effects on educational success. However, these affects exiting technology that most of the companies and educations uses. There are many influences on education especially developing countries. The university is where the knowledge created and stored using libraries. As we know also the participation rates are growing rapidly in terms of economies and regions but in African university are maintaining same not much growth in terms of technologies and also researches. But there is some participation rates are also now growing steadily in sub- Saharan Africa, after decades of negligible growth. Figure Figure1 shows how universities increasing especially Sub-Saharan Africa [6] [7].

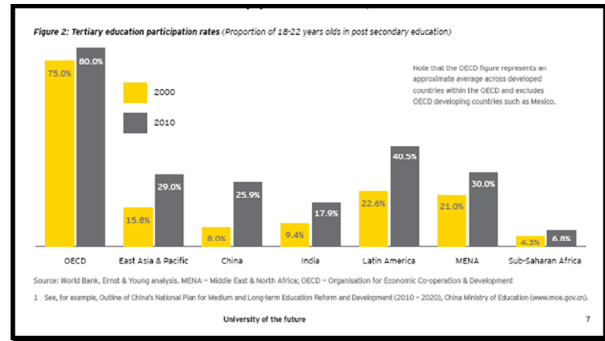


Figure 1 shows how universities increasing especially Sub-Saharan African to university of future.

A. BACKGROUND

Improving education was a priority in the years following independence and the subsequent creation of the Somali Republic in July 1960. A perception of what education could do for the individual and for society is captured in the popular nationalist song composed shortly after independence by the Somali poet, Abdullahi Qarshe, with verses such as Aqoon la'aani wa iftiin la'aane (lack of knowledge is lack of enlightenment)[9] (A. Progress however was slow. The inability of the new government to reform and expand the education system could be attributed to various challenges. Integrating two education systems developed by very different colonial powers, Britain and Italy, with different languages of instruction, syllabuses, and management styles, was a daunting task. Finding effective strategies to provide education to the large proportion of the population leading a nomadic pastoral lifestyle also proved to be extremely difficult.

The military coup led by General Mohamed Siyad Barre in 1969 marked the beginning of a period of significant progress in the provision of education in the country. The military regime introduced a number of revolutionary social and economic programmes under the banner of 'scientific socialism' – a mixture of Marxist-Leninist socialism and Islamic principles. One of these programmes was the mass literacy campaign launched in 1974 which mobilized a large number of students and civil servants to teach in rural nomadic communities and increased the literacy rate in Somalia from a dismal 5% to approximately 55%. [9] The adoption of the Latin alphabet as the official script in Somalia in 1973, though controversial, paved the way for a more cohesive education system in the country. Progress was made in 1970 when the Somali National University was established in Mogadishu with dedicated faculties for journalism, education, and medicine among others [8]. Very little progress was however made in the provision of the higher education in the rest of the country.

The growth of lower levels of education has fuelled the increase in demand for higher levels of education. In response, the higher education sector grew rapidly in the last decade. In Somaliland, 23 institutions were functioning in January 2013, a significant increase from the two institutions that existed in 2004. In South-Central, a 2011 report by the Ministry of Education, Culture and Higher Education stated that 15 universities were operational across the region.

B. CASE STUDY

SIMAD University, which was established with the help of African Muslims Agency (AMA), formally started its academic activities in 1999 as an institute of higher learning to foster academic excellence. After 11 years of consistent success and achievements, the Board of Trustees upgraded the institute into a full-fledged university on January 20, 2011. With its quiet and smooth setting, it offers students an ideal environment to pursue their academic studies with its excellent infrastructure and technological equipment. SIMAD is the leading brand of education in Somalia.

SIMAD University offers a diverse range of both undergraduate and postgraduate courses of international standards in various disciplines. These include economics, statistics, business, accountancy, banking and finance, procurement and logistics, computer science, technology, education, law, public administration, and allied health sciences.

The university aims to offer contemporary, sustainable and quality education at international standards, conduct research, contribute to the needs of the society, and meet the needs of all stakeholders, and there are many graduates in IUM students of having knowledge and competencies.

The University constantly strives to create a friendly learning environment with a plenty of facilities including technologically equipped classrooms, modern chairs and tables, high-tech computer laboratories with internet facilities and a well-stocked library.

The culture and experience of SIMAD University have played an important role in the professional and personal development of their students. The University will continue to fulfill its responsibilities to the society by creating a conducive environment and providing.

C. PROBLEM STATEMENT

The main problem that most university in Somalia facing is the low quality of their ICT that is not sufficient for their services. And also insufficient of internet usages for their main offices and In effectiveness of the new technology platforms like internet platforms. Difficulties of communication among students and lecturers because of less technology use

II. LITERATURE REVIEW

With the collapse of the Somali state, the Somali National University was reduced to deserted buildings. All its documents and equipment were destroyed or looted. Fortunately, a sizable portion of its invaluable Forlani Collection of rare books, as well as many of the holdings of the National Library—which had also been pillaged—have been reassembled through the efforts of the Islamic Research and Documentation Centre in Mogadishu and are available for consultation upon request. At the Lafooley College of

Education, the former teaching staff managed to save the buildings and some of the College's library books and laboratory equipment. These small victories pale, however, beside the formidable challenges of reviving the country's higher education system. [5]

From 1996, civil society groups, international organizations, and local educators began a series of higher education initiatives in response to the growing number of secondary graduates seeking to continue their education. The earliest projects were Amoud University in Borama zone and Mogadishu University. These were followed by the founding of Hargeisa University and East African University in Bosaaso. Other unknown universities have recently sprung up in Mogadishu, with support from local businessmen, the EU and Arab countries, and Western and Islamic NGOs. They include Islamic University, Benadir University, Xamar University, and Indian Ocean University. The Somali Institute of Management and Administration Development (SIMAD) started offering professional courses in accounting, business, and information technology at diploma and degree levels. Recently, still more "universities" have been announced by leaders in Kismayo, Baidoa, Hiran, Burco, Berbera, and Galkayo, besides another six universities in Mogadishu itself. Despite the uneven quality and questionable relevance of some of the education they offer or intend to provide, the proliferation of universities is a clear response to the hunger of Somali secondary school graduates for more advanced training (as well as an acknowledgement that foreign scholarships for Somali students are extremely hard to come by).

As yet, no network or association exists to monitor or regulate the quality of instruction in these newer universities, which are clearly not yet up to recognized international standards for higher educational institutions. A major question at the outset is who should have the authority to design the basic structure and curriculum for these universities and to certify any degrees they issue? Other critical issues facing Somali higher education more generally include:

- Setting priorities among disciplines and specializations to ensure that fields critical for national needs are sufficiently enrolled while avoiding an oversupply of graduates in less relevant fields
- Avoiding regional imbalances of educated citizens that may result from leaving the establishment of private institutions to market forces alone
- Ensuring that certified institutions of higher learning have adequate numbers of qualified professionals in planning, management, and instructional roles
- Ensuring that fiscal and governance structures are transparent and accountable
- Ensuring that classrooms, libraries, and laboratories are up to international standards in order to attract top students and faculty
- Devising a system for funding operations, salaries, and student scholarships over the long term
- These challenges must be met if Somalia expects its university graduates to compete effectively in the global economy of the 21st century.

The most substantial growth of the Somali higher education sector occurred in the last decade. Of the 44 surveyed universities, 34 were established between 2004 and 2012.

This growth pattern slowed down between 2006 and 2010 and then picked-up again between 2010 and 2012. Only one university was established between 2005 and 2009 in South-Central, reflecting increased insecurities following the Ethiopian invasion and the fall of the Union of Islamic Courts. Meanwhile, growth in Somaliland and Puntland continued until 2011. Of the six institutions established in 2012, five are based in South-Central.[4]

Given the fact that only one university existed in the country prior to the collapse of the state in 1991, growth patterns across South-Central, Puntland, and Somalil and in the last two decades have been remarkable. This finding could be interpreted in two ways. First, it is possible that growth merely corresponds with the significant growth of the higher education sector that has been experienced throughout sub-Saharan Africa in the last two decades [1][2]. Second, the absence of a strong central government in Somalia and the limited capacity of regional authorities have naturally led to the privatization of social services including education (Bradbury, 2007). Consequently, the growth in the private provision of higher education sector may have changed the view of higher education from a public good to a tradable commodity and thus encouraged more private players into the higher education market.[4]

III. INITIAL FRAMEWORK

Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
<ul style="list-style-type: none"> African Muslims Agency (AMA) Secondary school Scholarships Donations 	<ul style="list-style-type: none"> Teaching and providing knowledge 	<ul style="list-style-type: none"> Sustainable and quality education at international standards Giving students knowledge and competencies Friendly learning environment with a plenty of facilities 	<ul style="list-style-type: none"> Long term relationship Great communication 	<ul style="list-style-type: none"> Students Lecturers Secondary school
	Key Resources		Channels	
	<ul style="list-style-type: none"> Lecturers 		<ul style="list-style-type: none"> Face-to-face (classrooms) 	
Cost Structure		Revenue Streams		
<ul style="list-style-type: none"> People 		<ul style="list-style-type: none"> Education fee 		

Figure 2 shows Initial BMC framework

IV. METHODOLOGY

Postal questionnaire was selected as the primary research instrument in order to gain as broad a view as possible of the issues surrounding university of future, amongst a spectrum of universities from Somalia. As it was felt that university of future may be a sensitive subject to some corporations. The questionnaire required to establish how universities are transforming into university of future, and to determine what factors influence business canvas model (BMC) and value proposition design (VPD). The questionnaire is showed amongst 100 students Somalian across a range of universities. To achieve a greater understanding about university of future (UoF) in developing countries, we decided to carry out a number of semi structured online interviews. The interview schedule evolved from the analysis of the questionnaire responses. The number of questions was limited so that the interview would not last more than 30 minutes, and to reduce

bias questions were clearly phrased and open. The questions were intended to act as prompts throughout the interviews so that conversation would flow naturally and in the direction the interviewee wished to take. During each interview notes will take on a print schedule, and these notes will be transcribed for analysis into recurring themes. The interviews generated much useful information that illuminated the trends highlighted by the questionnaires. Again, however, as so few students will be interviewed, the results will be analyzed.

V. FINDINGS AND ANALYSIS

The findings are presented in this paper are based on quantitative research, totaling 100 randomly sampled participants. The total of the students that participated in this study were giving questionnaire. The participants were mixed with postgraduates and undergraduates. On an overall scale, the findings showed that a high number of students that participated were undergraduates and also they were self response for their academic fees. Figure (1, 2) shows the overall of the find participants in terms of educational field's and student's types.

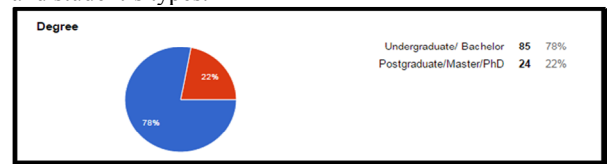


Figure 1 shows the degree level of the respondents

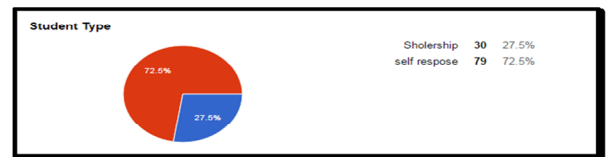


Figure 2 shows the degree level of the respondents

The finding also shows that most the participants where male compare to females. And also their age where shows that most of them are between 18 to 25 years old. Most of the students also were graduates and also working while there are studding. Figure 3, 4 and 5 shows in graphic forms.

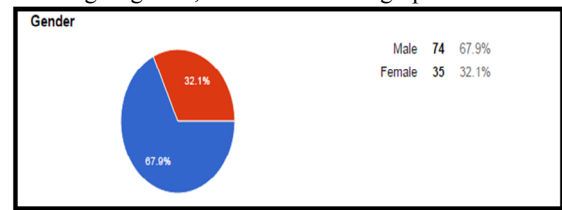


Figure 3 participants gander

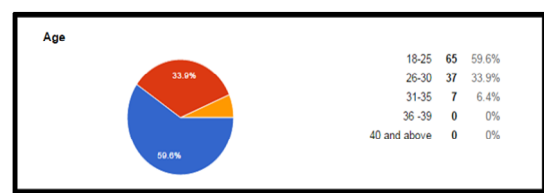


Figure 4 participants age

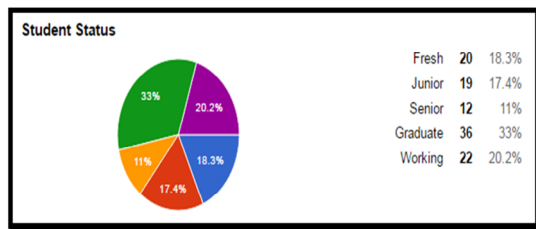


Figure 5 students status

A. INTERNET USAGE

In terms of using internet was bit different because we were expecting that most of students do not have internet. But the result shows as different and most of the participants access internet daily in most of locations. Figure 6 shows the internet usage amount the participants

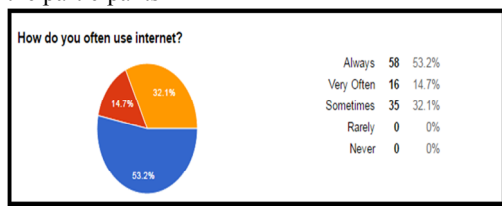


Figure 6 the internet usage of participants

B. LEARNING ENVIRONMENT

By asking the students the overall of the learning environment of the universities were answering these questions by this. Most of the students answered by asking whether there is websites their respective universities and they answered yes 88% of the responders. And also is there any online registrations for that website and most of them answered no 67% of the responders. The online library also missing because 71% agree that there is no online library that stores the information. On the other side, most of students willing that the enhancement IT services are better with 90%. And also if there is any enhancement of the services most of them 67% willing to contribute extra charges in case if the services will be better. Additionally, respondents also exhibited a certain level of knowledge, research and innovation receiving from university. There was increase to 47.7% see figure 7. Therefore the result shows us the current universities needs to improve more based on knowledge, research and innovation by applying ICT in batter in the future.

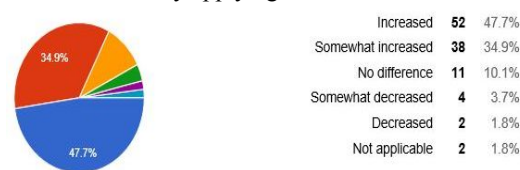


Figure7 shows Universities Improvement of Research, Innovation and Knowledge Transfer to community.

However, figure 8 shows us the flexibility of the curriculum in current university 42.2% of student are moderately satisfied , while 27.8% are extremely satisfied , the question was asked base on their own program , hence the study shows are most of student are not satisfied the flexibility of their university curriculum.



Figure 8 flexibility of the curriculum of the universities.

As we mentioned above in figure 2 shows most of students are self-response as they claim the cost structure of their university 46.8 % the cost is normal while 26.6% very expensive and 24.8% are expensive respectively,



Figure 10 Financial structures of the universities

In online and ICT service overall the current universities are use 40.4% compared to developed country this number is very small , the study also shows us the poorness of ICT service in current universities.



Moreover, both staff and students are 38.5% extremely satisfied the environment of university as place of work and study, while 31.2% are moderately satisfied

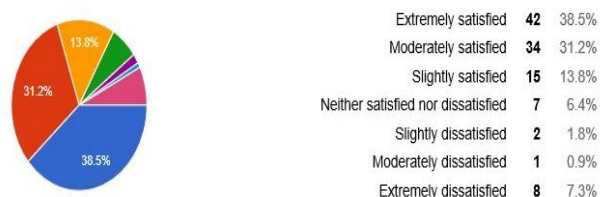
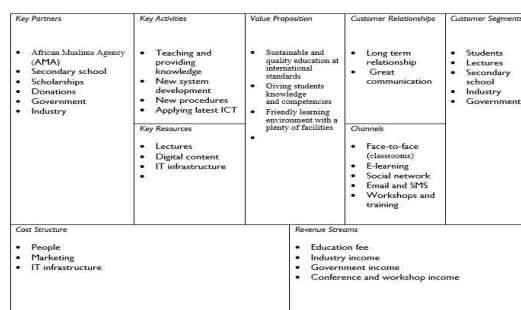


Figure 12 shows Staff and student satisfaction of universities

VI. ENHANCED UOF BMC



NEW PURPOSED MBC

After we analysis the main problems and solution than we purpose new business model using BMC tool and we

generate new customer segment in order to improve revenue streams of the university. Moreover, we create new value proposition to attract the customers and we also improve the customer channels to enhance the university services, finally we recommend to increasing the internal usages and bandwidths as well as to upgrade the resource of the university.

VII. SUMMARY AND FUTURE WORKS

The purpose of this paper is to transform view of Somalia universities into University of the future (UoF) and apply advance ICT in all education systems and provide better education services using latest technology in order to improve the level of education of students. And also make it the communication easily for lecturers and students. However, as the technology keeping update and growing fast we advice to work fast and always update.

CONCLUSION

On this paper we discussed and analyzed the main challenges in Somalia universities and suggest how they can improve to be university of the future and the aim of this study is to apply advance ICT in all education systems and provide better education services using latest technology in order to improve level of education of students. And make it the communications easy for lecturers and students. Therefore we studied the current processes of higher education in Somalia in order to transform the University of the Future (Uof) to overcome the current problems and challenge. Finally we found that the needs of current higher education systems to transform UoF and we develop new business model canvas (BMC) and value proposition design (VPD) to implement that UoF.

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