International Journal of Engineering & Technology, 7 (3.21) (2018) 256-260

International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET

Research paper

Factors Affecting Yemen Higher Education Institutions Performance: Challeneges & Obstacles

Basheer Al-haimi[1]*, Ab Hamid, Mr.[2] Fadhl Hujainah[3]

[1]Department of Industrial Management, University Malaysia Pahang, Kuantan, Pahang, Malaysia
[2]Department of Industrial Management, University Malaysia Pahang, Kuantan , Pahang, Malaysia
[3]Department of Computer System and Software Engineering, University Malaysia Pahang, Kuantan; Pahang Malaysia
**Corresponding author E-mail: basheerump@gmail.com*

Abstract

Yemen's higher education institutions face unmatched circumstances and challenges. Yemen's higher education institutions encounter a lot of obstacles and issues that affect its performance of being competitive among other institutions of the same region or the rest of the world. Therefore, this paper investigates current obstacles and factors that affect the performance of higher education intuitions of Yemen that results them for not being listed among World Class Universities. This study employs qualitative method, where 5 experts and experienced people are interviewed. The findings of this study showed that, lack of national vision of government, leadership, financial support, research and development funding, autonomy, governance, academic staff development, ratio of student's enrollments in humanity studies and quality of academic programs are some of the major issues that the Yemen higher education institutions currently experience. It is hoped that, through this article, the HEIs of Yemen would be enhanced and improved by concentrating and finding the best solutions in order to propel and be able to leap to a greater height in the region.

Keywords: *Higher Education Institutions; challenges; performance; Yemen.*

1. Introduction

At the current time, the role and importance of universities, colleges and other higher education institutions (HEIs) supposed to be far better than its earlier times. This is because they become the country's supplier of new discoveries in science and technology, well-trained adults and expert knowledge of the kind crucial to the work of most important institutions which are important components to the national progress (Bok, 2015).In addition, they are important to assist us by educating our future leaders which will lead to strengthen our democracy and country's leadership, making the students more active and the citizen more knowledgeable as well as offering programs , policies and consultations to governments. Moreover, (Issa, A. T., & Siddiek, A. G, 2012) stated that , these instituions are the machine's head that pull the train development in any country. They are creative, field of knowledge as well as incubator for technology which will be able to serve the society.

Consequently, we notice that there are tremendous expansion in terms of student enrollment which will double as high in 2025 compared to 2005 (Maslen, 2012). On the other hand, expansion of higher education institution also increased whereby around 19,000 institutions exist around the world (Bernd Huber, 2016).All these facts and matters show us the importance and role of HEIs as well as the global knowledge expansion.

Higher education history in the Arab World which Yemen is one of them back in the mid-twentieth century where there were only three universities in the Arab world till 1950. The universities that were founded at that time are : Syrian university , the Egyptian Governmental university known as Cairo University , established in 1925, and Farouk university in 1942 (Althbyta,2000). In Yemen, higher education begun early of 1970's where the two government universities (Aden University in the south and Sana'a University in the north) have been established in the year of 1970 (Baheer Al-haimi, 2017).

As with any higher education in the world, Yemen's higher education faces internal and external challenges and risks. Mohammed Almutahr (2005) highlighted a number of external and internal risks and challenges faced by Yemen higher education. The external challenges and risks represented by Globalization, Information and Communication Technology and Knowledge explosion, while the internal ones are social demand for higher education, heavy reliance on government funding, absorptive capacity limitation , limited of higher education structure , weak of internal efficiency, limited development in postgraduate studies , shortage of teaching staff, quality culture development and provision of financial resources. Furthermore, a study conducted by Silan (2003) showed that there are several reasons behind the weakness of the Yemen universities' role. The reasons that caused weakness are related to strategic planning, budget system, quality standards, administrative and teaching skills, usage of technologies, university collaboration and community services.

Thus, due to the lack of knowledge on current situation, challenges and obstacles of Yemen HIEs and the importance and roles of HIEs in current century, it is crucial to investigate current challenges, obstacles that Yemen HEIs faces in order to find solutions in the nearest future. Hence, the aim of this work is to enrich the body of knowledge related to challenges and obstacles faced by HEIs which will be a base for any further studies and solutions with regards to current circumstances.

Copyright © 2018 Authors. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

2. Literature Review

2.1. Higher Education Globally: Challenges

The world is always changing. Throughout globalization and digital revolution, higher education is being reshaped and redesigned (Stephanie, 2013). As a result, higher education, over the last decades is experiencing a lot of challenges and changes. (Farhana et al., 2010) have found and summarized a number of 20 challenges face higher education globally. Figure 1 shows the 20 summarized challenges face the higher education.

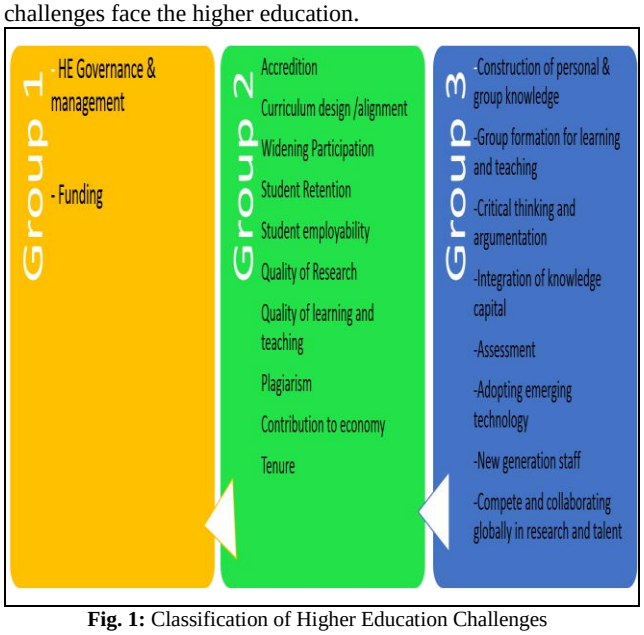

Fig. 1: Classification of Higher Education Challenges
Source: (Sarker et al., 2010)

Figure 1 shows that the challenges have been classified into three main groups. Challenges in groups 3 are to be classified as the lower group followed by group 2 and group 1. The interpretation of this classification is back to the influences of one group to the other. According to researchers (Sarker et al., 2010), if the challenges in lower group (group 3) improves in their quality and efficiency then upper group (group 2) will automatically improve and so on. In addition, according to Richard (2010), the OECD of higher education conference that hold in Paris on 2010 concluded four challenges face global higher education. The concluded four big challenges are: the need of research into difficult global issues on one side and access and equity on the other side, contextual where higher education has expanded and diversified, the university model-driven and the presence of extensive aid for well understanding of, and recognition for, teaching in higher education. From here, it can concluded that higher education is facing a lot of challenges and many changes.

2.2. Higher Education of Yemen

Public higher education is quite recent phenomenon in Yemen, with its first public universities establishment in 1970. However, in latest years it has grown very fast as proved by the four fold increase in enrollments in the 1990s (World Bank, 2011). There is a noticeable increase in higher education institutions in Yemen as a result of the increase demand for higher education. Table 1 below shows the current stage of higher education development in Yemen in terms of number of institutions, teaching staff, administrators, technical staff and student enrollment.

Table 1: Current development stage of higher education institution in Yemen 2013/2014

Current development stage of higher education institution in Yemen2013/2014	
Indicator/Item	**Number**
Public Universities	16
Private Universities	38
Student enrollment(Public &Private)	311,000
Teaching staff and assistants (Public universities)	8764
Administrators and Technicians (Public universities)	7291

Source: (Supreme Council of Education Planning, 2015)

As shown in table 1, there are 16 public universities (6 of them still under construction), while a number of 38 are private universities. The number of students in both public and private universities are (311) thousands. From that fact and numbers, it has to be noticed that there is a rapid demand of higher education and increase in the number of institutions.

Higher education around the world is facing internal and external risks and challenges which has a negative impacts to the higher education's systems. Yemen higher education is one of those world's higher education which face internal and external risks and challenges. Mohammed Almutahr (2005), highlighted a number of risks and challenges faced by Yemen higher education that summarized in table 2 below:

Table 2: External & Internal challenges faced by Yemen higher education

External challenges	**Internal challenges**
1. -Globalization 2. -Information and Communication Technology 3. -Knowledge explosion	1. Social demand for higher education 2. Heavy reliance on government funding 3. Absorptive capacity limitation 4. limitation of higher education structure 5. Reluctant of private sectors to invest in higher education 6. Weakness in institutional ability 7. Weakness of internal efficiency 8. Limited development in postgraduate studies 9. The shortage of teaching staff and the need for professional development 10. Development of quality culture in HEIs. 11. Bridging the gap between the decision-makers and universities. 12. Provision the financial resources to set up a national network for higher education.

The above table 2 shows that there are three external and 12 internal challenges and obstacles faced Yemen higher education institution. Moreover, a recent book published by a Supreme council of Education Planning in Yemen which highlighted a number of 24 obstacles faced by Yemen higher education and scientific research. Table 3 shows the summary of those challenges and obstacles after being grouped into main components.

Table: 3: Obstacles of Yemen Higher Education and Scientific Research

No	**Category / Variable of obstacle**	**Explanation**
1	Strategic Planning	It is weak and currently stop and not working
2	Administrative and academic leaders	The performance of those leaders are poor which led to inefficiency and ineffectiveness institutional performance.
3	Rules and regulations of the universities	Declining in the commitment level, lack of regular legislation and regulations for scientific research.
4	Enrollment rate	Weakness of enrollment rate of the total population
5	Distribution of Higher education institutions	Higher education institutions are distributed in a disparity way among the provinces.
6	Employment and workers	Weakness of higher education outputs lead to unsatisfactorily performance among graduates.

7	Quality assurance	A comprehensive system of quality is not yet completed.
8	Specializations	Lack of scarcity, practical and industrial disciplines.
9	Private sector participation	Participation of private sector is weak.
10	Brain drain	The best brain are outside the country because of lack encouraging
11	Appointive and evaluation of teaching staff and academic leaders	Transparent evaluation mechanism is not exist, nepotism is in the selection and recruitment.
12	Financial resources	Financial resources are limited

Source: (Supreme Council of Education Planning, 2015)

The summarized challenges and obstacles from table 2 and table 3 show that Yemen higher education encounter a lot of challenges but still need to be investigated for more clarification and perhaps for more deep understanding of the current obstacles. This paper will investigate and clarify more factors and challenges that led Yemen higher education institutions to not be listed among World Class Universities.

3. Methodology

The research methodology of this study was based on qualitative method. The data collection method used for this paper is using interview. It was presented by the structured interview where the data were gathered throughout the process. Those who have been formally interviewed are from top management of higher education and experts in education and higher education in Yemen. Table 4 shows the experts participated experts in the interview, their positions, years of experience, and the way they were interviewed. There were five experts from the top management of education and higher education of Yemen. They are interviewed face to face and through phones. To guide the interview discussion, we used a set of open- ended questions, related to higher education of Yemen. Therefore, open-ended questions method allows the respondents to discuss more issues that are important and related to the research.

Table 4: Demography of Interviewed People

Position Level	**Years' of experience**	**Interview Method**
Minister of Higher Education 2006-2011	35 Years	Face to face
Minister of Higher Education 2014-2016. Deputy Minister of Higher Education 2001-2015	40 Years	Face to face
Minister of education 2003-2007	20 Years	Phone
Dean of Postgraduate Studies – university RHODE Island and consultant to Deputy Minister Higher education Yemen	20 Years	Phone
Vice Chancellor of University Science and Technology –Yemen -1994-2007 Director of International Networking and Scholarships& director of Islamic Body for Quality and Accreditation – Currently	20 Years	Face to face

4. Findings and Discussion

Based on the study conducted, and its results generated from the interviews with experts, there are several challenges and obstacles which can be considered as factors that led the Yemen Higher Education Institutions to perform unsatisfactorily and failing to be listed among World Class Universities. These factors which are identified can be categorized into major components such as National Vision of the government, governance, autonomy, financial support, student's enrolment, teaching staff, postgraduate studies, research and development and the drain brain. These major components are elaborated further in the following sections.

4.1. National Vision of the Government

One of the most significant roles of the government in tertiary education is to set a vision and a strategy .Several studies have been conducted on higher education strategic planning in many countries such as Malaysia, Pakistan, Bangladesh, New Zealand, Tanzania, South Africa, United Kingdom and United States (John, 2008). One of the features for such strategies is that the national leaders of the country set a vision for higher education for the future, for instance:

Malaysia : "I do believe that it is necessary to stress that for most countries today, human resource development and human capital formation are either extremely important, absolutely vital, or a matter of life and death. In the case of Malaysia …we think it is a matter of life or death."(Abdullah Bin Ahmed Badawi, Prime Minister of Malaysia , 2006). Therefore, a national vision of the government has to play a major role for directing the trends of higher education in the country.

In the case of Yemen, the results of interview with the experts showed that one of the most important factors is the lack of a clear vision among the political leaders and top governmental leaders about the role of education and specially the universities and how they are important to the national progress in developing economy and development in the country. Yet, they do not deny the importance of this matter but it then does not translate into support, funding and concern by developing the administration and governance of the universities in a way that lead to the required development and improvement.

4.2. Governance

In higher education, there is a fact that governance plays a big role and major leverage tool in reconstructing the quality of higher education in many aspects (Henard & Mitterle, 2009). There are many reasons behind the importance of governance in higher education institutions in the current century. One of those reasons is the dramatic changes in higher education throughout the expansion of tertiary education systems, variation of provision, more heterogeneous student bodies, the increase in internationalization of higher education as well as the research and innovation (Henard & Mitterle, 2009). Another significant reason is the requirements of perceiving a world class standing universities and scoring high rankings. (Salim, 2015) has linked the perceived world class standing of a university and its ranking to three main factors: concentration of talent, abundant resources and appropriate governance.

With regards to this matter, most of the Arab world universities are governed by the authorities of their governments. One of major causes for failure in accomplishing any goals and roles of those universities is the weak and low governance. For instance, Yemen, Syria, Saudi Arabia, Morocco are applying the traditional pattern of governance (ElObeidy,2014).

To support this statement, in the context of Yemen, a results of the interview in this study showed that the political interferance in appointing academic leaderships and rectors of the universites are based on political grounds more than sceintific or professionals grounds. As a result, a negative impact has befall on the desired development of the universities.The focus of those selected leadership was mainly on the finanical and adminitrative aspects and not in developing a strategic plan that can identify the strength, weakneses, opportunities and challeneges in order to come out with a clear vision on how those instuitions should be. In addition, in terms of university budget , the ministry of finance is controlling all the universites activities while the revenues and fees return should also retun back to the minitry of finance.

4.3. Autonomy of the Universities

University autonomy is referred to "the independence of the universities from the state and other forces of society to make decision regarding its self-government, finance, administration and to establish its policies of education, research, extension work and other related activities"(WCU,1988). (Jan Sadlak and Liu Nian Cai, 2007) stated that: "institutions that have full autonomy and are not constrained by heavy bureaucracies are more flexible. As a result, they can manage their resources with agility and quickly respond to the demands of a rapidly changing global market. University autonomy become one of the most important elements for creating successful universities. Unfortunately, for Yemen, the interview results showed that Yemen university autonomy is absent and doesn't have the freedom to make their own decision in terms of self-governance, finance, and administration as well as the appointments.

4.4. Financial Support

The financial strength of Yemen universities is very low as compared to other universities in other countries. For example, the budget of University Malaya in Malaysia is equal to all government universities' budget in Yemen. With this regard and because of global financial crisis, Yemen has been harmed and university budget has been reduced. The extension of building new universities has cost the state a huge amount of money and the state's resources have become wasteful.

4.5. Students Enrolments

The majority of student's enrolment is in humanities and social sciences that is represented by 86%, and only 14% study in the science and technology (Basheer Alhaimi, 2017).Moreover, the percentage of female students' enrolment represents only 26% which raises the issue of equity. There is a high percentage of students who study in the field of education and they are much bigger than the marketplace needs.

4.6. Teaching Staff

The real problem in this point is that there is no development and evaluation for the current teaching staff and there is no replacement. One of the reasons behind that is the shortage of required funding to ensure outstanding quality of teaching staff. There is no center in the universities or in higher education concerning continuous development of teaching staff.

4.7. Postgraduate Studies

Postgraduate studies in Yemen universities is limited. The percentage of those who further their postgraduate studies in Yemen universities is represented by 2% of the total students enrolled. As a result, the role of Yemen universities is more towards teaching and learning rather than research and development.

4.8. Research and Development

The research and development in Yemen universities are not activated. Furthermore, there is no specific budget for scientific research. (Basheer Al-haimi, 2017), in his findings, stated that the role of Yemen universities in terms of scientific research is still limited and a percentage of 40% can be given as an evaluation for the role of research and development in Yemen universities.

5. Conclusion

This paper is aimed to study the current challenges, obstacles and factors that hamper Yemen's higher education institutions performance. A qualitative research methodology has been employed and interview was used as research instruments and method for data collection purpose. An interview with five experts have been performed to come out with findings. The current challenges and obstacles that Yemen higher education institutions face are the findings of this study. The current challenges and obstacles indicated several issues such as National vision of the government, leadership, financial support, research and development funding, autonomy, governance, academic staff development, ratio of students' enrolment in humanity studies and quality of academic programs.

Acknowledgments

This paper is from part of a study supported by the research grant given by University Malaysia Pahang (UMP) and the Yemen government by the Ministry of Higher Education. Special thanks to UMP and Yemen government as well as to those who have contributed to the contents of the paper especially the interviewed expert people of the top management of Yemen higher education.

References

[1]. Abdullah Bin Ahmed Badawi, Prime Minister of Malaysia, (2006). Opening Speech of the 2006 Meeting of the Association of Commonwealth Universities)

[2]. Basheer Al-haimi (2017). Higher Education Of Yemen: History, Development And Cuurent Status. Paper presented at the 1th Governance and Integrity conference (FGIC), Yayasan Pahang,Kuantan , Malaysia.

[3]. Bok, D. (2015). Higher education in America. Princeton University Press.

[4]. Brend, Huber. (2016). The Role of Universities in Society: Challenges Ahead . Paper presented at the 6th International Conference on World-Class Universities (WCU-6), Center for World-Class Universities,Shanghai, China.

[5]. ElObeidy, A. A. (2014). Governing public universities in Arab countries. Perspectives: Policy And Practice In Higher Education, Vol. 18, No. 4, 131–137.

[6]. Henard, F., & Mitterle, G. (2009). quality guidelines in Higher Education" IMHE.

[7]. Issa, A. T., & Siddiek, A. G. (2012). Higher education in the Arab world & challenges of labor market. International Journal of Business and Social Science, 3(9).

[8]. Jan Sadlak , Nian Cai Liu (2007). "The Challenge of Building World-class Universities." In The World-Class University and Ranking: Aiming Beyond Status, ed. , 61–71. Bucharest: UNESCO-CEPES.

[9]. John Fielden (2008), "Global Trends in University Governance" the World Bank, Washington, D.C. – U.S.A.

[10]. Maslen,G (2012, February 19). Worldwide student numbers forecast to double by 2025.University WorldNews.Retrievedfromhttp://www.universityworldnews.com/article.php?story=20120216105739999.

[11]. Mohammed Almutahar (2005), "Challenges that face Yemen higher education: Current situation and the future vision".

[12]. Richard Yelland.(2010,October 10). Global: The big challenges for higher education. Retrieved from *http://www.universityworldnews.com/article.php?story=20101008113124222*

[13]. Salmi, J. (2015). Excellence Strategies and the Creation of World-Class Universities. Paper presented at the 6th International Conference on World-Class Universities (WCU-6), Center for World-Class Universities,Shanghai, China.

[14]. Sarker, F., Davis, H., & Tiropanis, T. (2010, November). A review of higher education challenges and data infrastructure responses. International Conference for Education Research and Innovation (ICERI2010).

[15]. Silan Jubran Alabidi (2003), "Activate the role of Yemen universities.World University Service (WUS) (December 1988) . The Lima Declaration on Academic Freedom and Autonomy of Institutions of Higher Education. Geneva.

[16]. Stephanie Bryant. (2013, October). "Challenges facing higher education institutions" retrieved from *https://beyond2015.acu.ac.uk/submissions/view?id=106*
[17]. Supreme Council Educational Planning. (2015, August). Education Indicators in the Republic of Yemen 2013/2014, Sana'a , Yemen.
[18]. The document of World Bank. (2011, Jun 22). Higher education reform in the middle east and north Africa.