Check for updates

OPINION ARTICLE

The need for a new science, technology and medicine University in the Middle East: Carving the future [version 1; peer review: 1 approved, 1 approved with reservations]

Zaheer-Ud-Din Babar

Department of Pharmacy, School of Applied Sciences, University of Huddersfield, Queensgate, Huddersfield, HD1 3DH, UK

V1 First published: 26 Apr 2018, 7:495
<https://doi.org/10.12688/f1000research.14600.1>
 Latest published: 26 Apr 2018, 7:495
<https://doi.org/10.12688/f1000research.14600.1>

Abstract

With innovations in science and technology, the world is transforming at a fast pace. The Universities in today's world, their structures, differences, and the work they do could have a significant impact on the lives of the people. This opinion piece proposes that a new Science, Technology and Medicine University is needed in the Middle East. The article also argues why such a University is needed in the presence of other Universities. This proposed University could act as a global think tank and could bridge the ideas, gaps, and work between low, middle and high-income countries. Currently, in the Middle East (in Dubai), several large western Universities have opened their campuses. The initiatives like this would certainly improve the quality of education, however, this also indicates that there are gaps and the need to build the more educational institution. Specifically, an institution in the region is needed with a global outlook and approach; a centre or powerhouse of ideas. In this paper, I briefly discuss the proposed University, its people, scope, vision, geographical areas to cover, financial models and the stakeholders who might be interested to build this University.

Keywords

Middle East, Dubai, Science , Technology, Medicine, University, Future, Ideas

Open Peer Review

Approval Status

	1	2
version 1
26 Apr 2018	view	view
1. Sammy Ohene , University of Ghana, Accra, Ghana		
2. George Perry , University of Texas at San Antonio, San Antonio, USA		

Any reports and responses or comments on the article can be found at the end of the article.

This article is included in the **Research on Research, Policy & Culture** gateway.

Corresponding author: Zaheer-Ud-Din Babar (z.babar@hud.ac.uk)

Author roles: Babar ZUD: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Project Administration, Resources, Software, Supervision, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing

Competing interests: No competing interests were disclosed.

Grant information: The author(s) declared that no grants were involved in supporting this work.

Copyright: © 2018 Babar ZUD. This is an open access article distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

How to cite this article: Babar ZUD. **The need for a new science, technology and medicine University in the Middle East: Carving the future [version 1; peer review: 1 approved, 1 approved with reservations]** F1000Research 2018, 7:495
<https://doi.org/10.12688/f1000research.14600.1>

First published: 26 Apr 2018, 7:495 <https://doi.org/10.12688/f1000research.14600.1>

Introduction

Though the Universities in the modern world differ from the past, however, the basic structures and functioning remain the same (University Alliance: Growing the future). In order to progress further, rather than being standalone academic institutions, Universities will need to become more integrated into the economy, with real commercial awareness and relationship management (The 2018 University: how ready is higher education to embrace the future). Currently, the majority of the Universities react to change, they work towards a solution when a problem is presented. However, it is argued that the Universities can take a more proactive role in charting a future for humanity and can become more effective partners in global development. This has been highlighted in various reports published by World Bank, UK's Department for Business Innovation and Skills and by the Centre for Higher Education Research and Information at The Open University in UK. The development agenda could include working on specific challenges and goals, for example, solving HIV or global hunger or providing a business solution for a problem of global scale.

Vision

A Science, Technology and Medicine University in the Middle East with preferably off-shoot campuses in other low and middle-income countries (South and South-East Asia, Africa). The University will be producing human resource who could tackle the science and technology challenges in 21st century.

A University fostering collaboration between global South and North. An area in the Middle East (for example Dubai) could act as a global hub. The University can work closely with the international agencies, WHO, World Bank and UN.

What advantages would it offer?

In the Middle East (in UAE, Dubai, and Qatar), several large western Universities have opened their campuses. This is a good approach and would strengthen the quality of education. However, though these Universities are established institutions, their main mandate is to offer programmes and courses of their parent institute. The large majority of these universities are not meant to take up regional problems, local issues or global agenda. However, there are some exceptions such as Johns Hopkins University Programs in Qatar. This program was founded on the belief that social and behavior change communication (SBCC) is key to solve pressing health problems.

It is a known fact that the lack of think tanks and innovative Universities in the global South (developing world) have negatively impacted on leadership, generation of new ideas and bringing a positive change. Think tanks in many developing countries lack the financial and human resources to conduct in-depth economic analysis and carry out their tasks effectively (Endowments for Think Tanks in developing countries: What role for private foundations and official donors? High-level Seminar, OECD Headquarters, Paris, 28 April 2008). The Universities in developing world were supposed to play a pioneering role in addressing problems of poverty, social disorganization, low production, unemployment, hunger, illiteracy, diseases¹, however, these objectives

are not achieved in the real sense. On the other hand, the gap in science and technology between developed and developing countries is growing at an alarming pace necessitating the need for innovative models for education. In this context, the initiatives like this could have a real impact and can become an effective partner for global development.

The University can work at several levels. It can synthesize the knowledge available at a global scale and provide themes, action points and active solutions to the problems. The University can also chart ways for the new programmes and courses and rather than just following a traditional pathway of teaching and learning, this University can create an agenda of its own. Please see Figure 1 on the University's work, its' key stakeholders and partners. The work could include but not limited to on the issues such as future of humanity, ecology, the outbreak of diseases, developing new medicines, climate change, food safety, artificial intelligence, etc

Here are the five core principles to build the foundation of the University:

1. As a driver for change: *changing thinking, practices, developing new models to improve education and science*
2. University with an impact: *impact on society, lives of people, consumers, patients, systems*
3. Global niche, design, scope, and vision: *Education and research with an impact, to launch programmes which are vital but not being covered by other mainstream Universities*
4. Bridging the gap between developed and developing countries
5. Providing sustainable education

Geographical areas to cover

The region, because of its global outlook and population could benefit from an independent Science, Technology and Medicine University. Dubai as its main hub, while opening off-shoot campuses in other countries (South Asia, and Africa). The reason to choose Dubai is its close proximity to large population centres in Asia (China, India) Africa and the Middle East. These are the areas where the majority of the world's population live and the impact of any initiative of this nature would be immense. However, it does not mean that the similar initiatives are not needed for other regions, for example, Latin America, South America or for the Pacific.

The people and financial models: Call for action

The University can be managed by a multidisciplinary group with either a profit or a not for profit set-up. The University would be truly global in nature with a strong presence of expertise from low and middle-income countries. It could come up with a broad mix of people including professionals, entrepreneurs, and scientists.

Figure 1. Key stakeholders of the University.

There are different financial models which can be explored to build this University. This includes consulting and service models as well as expertise and capacity building in specific areas. Turning to investors and entrepreneurs, as well as to government and donor agencies could be some other options. The University can be built as, a public/private mix, or either as a not for profit company.

As institutions working on futuristic global issues are scant, developing such a University is vital. It would help provide innovative solutions relating to health, medicine, science, and technology as

well as solving pressing problems and needs. The international agencies are in the best position to take this idea further.

Competing interests

No competing interests were disclosed.

Grant information

The author(s) declared that no grants were involved in supporting this work.

References

1. Mosha HJ: **The role of African universities in national developments.** *Higher Education*. 1986; **15**(1–2): 113–134.
[Publisher Full Text](#)

Open Peer Review

Current Peer Review Status:

Version 1

Reviewer Report 23 August 2018

<https://doi.org/10.5256/f1000research.15889.r33839>

© 2018 Perry G. This is an open access peer review report distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

George Perry

Neuroscience Institute, University of Texas at San Antonio, San Antonio, TX, USA

The article outlines a clear and important vision of a university for the world located in the Middle East. The goals of stimulating development in the "South" with a "South" orientation rather than a North one is well presented.

The arguments could be strengthened with (1) more concrete numbers, such as the number of students leaving the Middle East for Europe and the U.S. for an education who do not return; (2) the viability of current Middle East institutions to transform, as it seems some are doing at this time; (3) the possibility of investment from the North or Middle East wealth to make this feasible.

Is the topic of the opinion article discussed accurately in the context of the current literature?

Yes

Are all factual statements correct and adequately supported by citations?

Yes

Are arguments sufficiently supported by evidence from the published literature?

Partly

Are the conclusions drawn balanced and justified on the basis of the presented arguments?

Partly

Competing Interests: No competing interests were disclosed.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Reviewer Report 13 June 2018

<https://doi.org/10.5256/f1000research.15889.r33835>

© 2018 Ohene S. This is an open access peer review report distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Sammy Ohene

Department of Psychiatry, School of Medicine and Dentistry, University of Ghana, Accra, Ghana

The author makes a valid point on the need for universities that seek to provide solutions for the specific problems of less developed countries.

The fact of a large gap in science and technology between North and South is noted as well as the need to look to the future in developing programmes for such a new university.

There is no doubt a university owned and manned mainly by citizens of low and middle level countries will better be able to focus on local problems.

It is not clear however how such a new type of institution will address the issues of scientific deficit or do better in the field of artificial intelligence than traditional universities.

The potential collaborative role is particularly exciting.

The recommendations for financing need further clarification since this is crucial for the realisation and sustainability of the idea.

It would be helpful to provide evidence for the assertion that "lack of think tanks and innovative Universities in the global South have negatively impacted on leadership, generation of new ideas and bringing positive change."

It is not clear also if asking the World bank and similar global institutions to take it up means they should come up with the money or only develop the concept further.

Overall I think it is a paper worthy of attention by anyone keen on trying a new way of fostering development and equality.

Is the topic of the opinion article discussed accurately in the context of the current literature?

Yes

Are all factual statements correct and adequately supported by citations?

Partly

Are arguments sufficiently supported by evidence from the published literature?

Yes

Are the conclusions drawn balanced and justified on the basis of the presented arguments?

Yes

Competing Interests: No competing interests were disclosed.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Comments on this article

Version 1

Reader Comment 26 Apr 2018

Huma Rasheed

Great vision. Universities need to play a proactive role in society and demonstrate the dynamism needed meet the needs of the world as of today and in future. That demands for alot of reworking, remodelling of the approach and thought process, as wel as view towards people and society. Great step indeed. I hope that the idea pulls alot of positive, creative and sensitive thoughts on the subject. Good luck.

Competing Interests: No competing interests were disclosed.

The benefits of publishing with F1000Research:

- Your article is published within days, with no editorial bias
- You can publish traditional articles, null/negative results, case reports, data notes and more
- The peer review process is transparent and collaborative
- Your article is indexed in PubMed after passing peer review
- Dedicated customer support at every stage

For pre-submission enquiries, contact research@f1000.com

F1000Research