

Strategic measures for enhancing the outcome of IsDB scholarships programmes....Call for actions

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I. Introduction

Countries that are predominantly Muslim are characterised by low spending on science, small scientific communities, poor-quality universities and weak scientific productivity. This status was evidenced by several regional and international reports.

IsDB member countries account for just 2.4 per cent of global research expenditure, less than two per cent of the world's scientists, 1.6 per cent of patents and 6 per cent of scientific publications, despite holding nearly a quarter of the world's population. Muslim countries have an average of 5.7 citations per paper compared with 9.7 for South Africa and 13.8 for Israel.

The above-mentioned science, technology and innovation performance indicators indicates the significance of Islamic Development Bank (IsDB) scholarships programmes in developing scientific workforce for promoting knowledge based economy.

II. Suggested strategic actions

For innovation to take root, the "golden triangle" of academic institutions, governments and the private sector must cooperate in doing business especially with common problems facing the IsDB member countries.

Thus, IDB scholarships programmes must be linked with productive, industry and private sectors.

To do that the following must be carried out:

(1) Defining the purpose of scholarship programmes

After the launching of IsDB 10 Year Strategic Framework 2016-17, IsDB is set into transformation phase which uses *the model of Management for Development Result with a focus on outcome*.

In line with that model, IsDB scholarship programmes must follow *outcome approach for promoting the development of knowledge-based economy in IsDB member countries*.

To do that, IsDB scholarship programmes should not support academic or basic research which could be funded by other academic and scientific organizations.

However, it should focus on the followings:

- Research projects dealing with problem-solving and direct developmental impact
- Producing scientific workforces needed for the labor market

(2) Reviewing fields of studies

Fields of studies in postgraduates' programmes including master and doctoral and post-doctoral programmes for scientific human resources development must be reviewed to fit with the needs of IsDB member countries as indicated in their higher education, science and technology strategies.

This is because some of the fields included in the scholarship programmes are not relevant to science and technological development such as law, political sciences, education, Islamic banking & finance, journalism etc.

To achieve that the following needs to be done:

- Carrying out need analysis to select Sustainability Science fields that could support the achievement of the Sustainable Development Goals (SDGs) in IsDB member countries.
- Analyzing higher education, science, technology, innovation and knowledge strategies for IsDB member countries.
- Performing talent shortage survey in relevant organisations in IsDB member countries such as science-based companies, science cities, technology parks etc.

(3) Changing the name of the IsDB scholarship programmes

To fit with the fields of study, the name of the IsDB scholarship programmes could be changed to:

- IsDB Sustainability Science fellowships programmes, Or
- IsDB knowledge economy for sustainable development fellowships programmes.

Thus, the name will be in focus and very well informed

(4) Developing alliances and links between IsDB scholarship programmes and industry and science-based private sector.

These links could include the followings:

- Islamic Chamber of Commerce and Industry (ICCI) which represents the private sector of 57 member countries.

- **The Islamic Corporation for the Development of the Private Sector (ICD)**
- **The Arab Union for Small Enterprises**
- **Science cities, technological parks and smart cities.**

New types of fellowships could be envisaged including the following:

- **“sandwich” PhD training programs (programs incorporating international and home-based study) for scholars from IsDB member countries**
- **Internships in companies or science city which can open up employment and entrepreneurial**

This cooperation will help in the following directions:

- **Facilitating innovations and the evolution of the region’s economy through building university-industry linkages.**
- **Helping in the creating of a dynamic innovation system.**
- **Supporting the creation and development of innovative, small and medium sized enterprises.**
- **Building strong, ongoing connections between researchers and industry as well as investors who can help to bring ideas, inventions and innovations to market, or otherwise into economically productive use.**

To do that, the followings could be done

- (A) Developing online directory for science-based companies and small enterprises, science cities, technological parks and incubators, and smart cities along with their technical problems and professionals skills needed**

This directory will help in the following:

- **Knowing the talent gap for detecting fields of studies with the scholarships programmes.**
- **Helping IsDB scholars to prepare projects dealing with real problems within industrial sector.**

- (B) Setting up a database "Making the science work for Ummah`s needs"**

The database includes simple, cheap and effective scientific approaches relevant to solving problems in IsDB member countries and related to socio-economic development in Islamic world.

This database will help potential IsDB scholars to work on innovative research projects relevant to the Ummah needs.

- (5) Developing links between IsDB scholarship programmes and universities in IsDB member countries.**

This is to do the followings:

(A) Enhancing the economy of IsDB member countries

While foreign students contribute US\$186 million to Egypt, international students currently contribute nearly US\$30 billion to the United Kingdom in addition to providing skills. In the United States, the contribution is US\$33 billion, according to the Association of International Educators known as NAFSA.

Arab students constituted nearly 10 percent of total enrollments of international students at U.S. colleges and universities during the 2014-2015 academic year and contributed just under \$3 billion to the economy, according to the U.S. Department of Commerce.

Study abroad is similar to tourism as it is the only export consumed 100% domestically. For every dollar spent by a tourist within the industry for accommodation and transport, three to ten dollars are spent in the local economy. The industry generates much needed foreign exchange and shifts perceptions about entire countries in global markets.

Thus, IsDB scholarship programmes must be linked to universities in IsDB member countries when possible.

(B) Protecting students from Islamophobia

A third of Muslim students have experienced abuse or crime at their place of study in the UK, with most victims believing it was motivated by Islamophobia, according to 2017 UK-based National Union of students survey.

On the streets, one in three feel fairly or very worried about being physically or verbally abused. For hijab-wearing women or those in clothing that makes them 'identifiably Muslim', this fear is several times more.

United States president Donald Trump's travel ban on Muslim-majority countries, including Libya, Somalia, Sudan, Iran, Syria and Yamen is a blow for students and academics.

(C) Allowing IsDB scholars to study in any scientific field needed

Access to knowledge is controlled by those who own it. For Muslim students, not all scientific fields could be studied abroad.

"In addition, Individuals who are planning to study certain fields that are considered "sensitive" (mainly science and technology areas) are subject to additional security background checks at the time that they apply for a visa, but once they are approved for a visa they can continue on to study the field. ", according to AMIDEAST

(D) Fighting brain drain

Muslim countries should harness their huge diaspora and support collaboration between their expatriate and local scientists

In the last 50 years, huge numbers of intellectuals have migrated from the Muslim world to industrialised countries. Studies estimate the number is almost 500,000 from the Arab world alone, comprising a third of the entire diaspora of professionals from developing countries to the West.

While doctors form about half of this exodus, scientists account for about 15 per cent.

Thus, to promote the developing links between IsDB scholarship programmes and universities in IsDB member countries, the following initiatives should be formulated :

- **Ranking of universities in IsDB member countries**
- **Guide for research centers in IsDB member countries**
- **Directory for IsDB science, technology and innovation prizes for institutes**
Since 2002, the prizes have been awarded to institutions in Azerbaijan, Bangladesh, Cameroon, Egypt, Iran, Kazakhstan, Kuwait, Malaysia, Morocco, Pakistan, Palestine, Senegal, Sudan, Tajikistan and Turkey.
- **Database for supervisors in universities in IsDB member countries**
- **Database for Muslim scientists abroad**

(6) IsDB Virtual scholarships for sustainable development

This type of scholarships could be set up in cooperation with national, regional and international open universities. It is very cost-effective especially for specific fields of studies.

(7) Preparing IsDB scholars for studying abroad.

IsDB scholars must be prepared to study abroad to optimise learning opportunities at foreign universities and to serve as IsDB ambassadors.

Apart from academic-related issues, IsDB scholars must go through comprehensive preparation and orientation, both in-person and online, which would cover topics ranging from health and safety to cultural, social and language awareness.

Issues of women and topics such as the hijab and perceived gender oppression are commonly used against Muslim women students and may sometimes be used to encourage, directly or indirectly, retaliation against their governments, which in most cases have a political motivation.

In fact, the US Federal Bureau of Investigation has released a number of reports warning students about the dangers of becoming a foreign spy while studying abroad. These include Safety and Security for US Students Traveling Abroad,

The Key to US Student Safety Overseas and National Security Concerns for Study Abroad Students.

(8) Making use of scholarship programme outcome

At present, the programme has been focusing on awarding the scholarships and measuring its impact by the number of scholars selected-graduated and number of countries and institutions benefited.

However, measuring the programme impact by following the graduated IDB scholars to know whereabouts and their utilization is not the right way to follow.

The scientific and economic impact should be measured by the work which they have done during their fellowship and how we can transform it into viable development projects as well as its impact on development.

Thus, exhibitions for demonstrating the results of IsDB graduates projects and ideas as well as presenting models that could be transformed into products and process by for investors and private sector must be organized with the aim for promoting industrial development in IDB member countries.

- **Service learning**

Combining higher education with community engagement equips students to be agents of change. Through their education, students learn to think critically, be politically aware, grow social capital, and raise the resources their communities need to develop and progress.

IsDB should encourages students to volunteer and apply their knowledge in their communities. In what is known as ‘service learning’ IsDB scholars could formally volunteer, do self-organized community work, set up community-based protection projects, actively participate in projects run by IsDB or partners, or work

(9) Launching prizes for IsDB graduate scholars

To encourage IsDB graduate scholars, prizes could be set up for them, including the following:

- **The Best Master thesis for the year**
- **The Best Ph.D. thesis of the year**
- **The title (IsDB science ambassador)**
- **Innovator for the year for best applied work of postdoctoral work.**

For example, the Study UK Alumni Awards were developed by the British Council and UK universities, and were launched by the British Council in September 2014. They are open to alumni currently residing in any country outside the UK, who have studied in the UK, at an officially recognised provider of UK university degree level study for a minimum of a term or semester, or who

have been awarded a full UK degree level qualification (or higher), by a UK university, within the last 15 years.

All applications are assessed based on the level of impact, strength of UK influence and potentiality of each success story to inspire.

Award winners and finalists are leaders in their fields who have used their experience of studying at a UK university to make a positive contribution to their communities, professions and countries. The Alumni Awards celebrate and showcase the impact and value of a UK higher education and raises the profile and reputation of UK alumni, their former universities, and the whole of UK education.

Winners win a trip to the UK to enhance their international and professional network, connect with their alumni and raise the profile of their institution.

Awards are presented in three categories:

- **Professional Achievement Award**
Recognises alumni who have distinguished themselves through exemplary leadership and achievements in their professional industry, and who can demonstrate the scale of their achievements and how they have made a strong and positive difference to their profession and society.
- **Entrepreneurial Award**
Successful applicants in this category will be active in initiating, or contributing to, innovative new business opportunities with strong growth prospects.
- **Social Impact Award**

The Social Impact Award acknowledges alumni who have made an exceptional contribution and commitment to creating positive social change and improving the lives of others.

(10) Promoting IDB scholars work

(A) After approving the final selection for scholarship, an annual book for IDB scholarships winners could be prepared.

The proposed book will contain the winners of the scholarships and their proposed research projects and may entitled: IDB merit scholarships programme : winners and their problem-solving research projects.

It could include a brief CV for the winners and research projects and its role in sustainable development of IDB member countries.

This book will be very important as it indicates the role of IDB in the human, socioeconomic and scientific development of IDB member

countries. In addition, it will help in the networking process between the scholarships winners and other scientists in the Muslim world.

(B) Success stories of IsDB graduate scholars

(11) Reviewing application and evaluation forms

The application and evaluation forms must be reviewed to fit with the above mentioned improvements points.

(12) Linking the scholarships committee with other STI committees and boards

IsDB STI initiatives must be united together....Not working in isolated islands.

It is obvious that undergraduates scholarship programme..... is linked tomaster, Ph.D. and post-doctoral scholarships programme..... which in turn is linked toIsDB-STI Fund: The IsDB Science, Technology and Innovation Transform Fund along with for IsDB science, technology and innovation prizes for instituteswhich all end up on the table of IsDB scientific advisory board.

(13) New supporting initiatives

IsDB must set up IsDB Virtual observatory for knowledge economy (VOKE).....to serve all STI initiatives

VOKE will be

- **The source of information and performance indicators for universities, research centers, science cities, technological parks, incubators, smart cities and science-based companies as well as strategies for science, technology, innovation, higher education and knowledge economy in IsDB member countries.**
- **A repository of knowledge for higher education, science, technology, and innovation and knowledge economy in IsDB member countries" for promoting the development of innovation-based knowledge economy.**

Also, these initiatives need to be established:

- **IsDB intelligence system for promoting partnerships & alliance between industry and science-based private sector and higher education institutions in IsDB member countries.**
- **IsDB Virtual Intelligence System for Promoting Science & Technology Investment for Poverty Alleviation in IsDB Member Countries**
- **Foundation for supporting STI in IsDB member countries**

Encouraging rich and public figures as well as companies in IsDB member countries for providing financial support and invest in what they can offer services to the academic and scientific community and building knowledge as well as sustainable development in the community.

This type of contributions could be used for fellowships at the universities in IsDB member countries for enhancing research and knowledge and contributing to the development.

📍This suggestion is based on the fact that

📍Middle East gifts and contracts to US universities in 5-year period starting from 2011-2016 reached \$ US 600 million from only 11 countries including Jordan, Iraq, Egypt, Pakistan and Turkey along with Saudi Arabia, UAE, Qatar, Kuwait, and Bahrain., 2018 report published by The Daily Caller

📍Africa, as an example, is home to a growing number of super-rich individuals who have the potential to make their mark in the development of higher education, scientific research and innovation, i.e. can we have equivalent of the Bill and Melinda Gates Foundation?

📍According to figures unveiled in the April 2017 Africa Wealth Report prepared by AfrAsia Bank in Mauritius, Africa has approximately 145,000 high net worth individuals, with combined wealth holdings of approximately US\$800 billion. This number of HNWIs is expected to rise by 36% over the next 10 years, reaching approximately 198,000 by 2026.

According to the report there are 7,010 multimillionaires living in Africa with a total individual wealth amounting to US\$ 2.2 trillion. Some of the African countries with the highest number of wealthiest individuals are IsDB such as Egypt, Nigeria, Morocco and Algeria.

- Worldwide scholarships information center for academic community in IsDB member countries**

Due to scarcity of funds and owing to the high cost of studying abroad, possibilities in obtaining fellowships and scholarships in IsDB member countries are low. Fellowship seekers from IsDB member countries are encouraged to seek other sources of funding.

Thus, IsDB Must establish (Worldwide scholarships information center for academic community in IsDB member countries) as virtual educational services platform for students seeking fellowships and funding for studying abroad.

The proposed center will provide help for academic community to find worldwide suitable scholarships programme as well as other funding opportunities which will eventually contribute towards social, cultural and economic development of the IsDB member countries.

🔒The funding opportunities will be classified according to its academic purposes including:

Undergraduate university studies

🔒Postgraduate studies (Master & doctoral degrees)

🔒Post-doctoral research work

🔒Visiting professorships

🔒Research fund for carrying out research projects in Arab universities and research centers.

🔒Financial aids for attending scientific events abroad including workshops, conference, symposium and training programmes.

III. The way forward

I suggest the followings:

- **Considering the above-mentioned strategic measures as a proposed roadmap for improving IsDB scholarships programmes.**
- **If approved, then I suggest dividing the Selection Committee of the IsDB Masters/PhD & Post-Doctoral Research Scholarship Programmes into 2 working groups of 3 person each along with a coordinator to the committee.**

Each working group will chose specific points from the roadmap to work on and prepare a report about it and held a meeting to discuss the report and put it in the final version to be ready for submission to the Chairperson of the committee.

- **IsDB must consider establishing >>>>> IsDB Virtual observatory for knowledge economy (VOKE).**
- **IsDB should consider allowing one person from Selection Committee of the IsDB Masters/PhD & Post-Doctoral Research Scholarship Programmesto attend meetings for undergraduates scholarship programme , IsDB-STI Fund: The IsDB Science, Technology and Innovation Transform Fund, IsDB science, technology and innovation prizes for institutes and IsDB scientific advisory board.....as observer because the tasks for these committees are interlinked.**