Key Performance Indicators : A GUIDE FOR ASSESSMENT AND QUALITY ENHANCEMENT FOR UNIVERSITIES IN THE ISLAMIC WORLD

Introduction

The quest for knowledge is a pillar of the Islamic Faith, and knowledge and its pursuit have today assumed greater importance in promoting knowledge-intensive world.

While the Muslim Leaders are aware of the critical role and impact of higher education in the socioeconomic development and in equipping the future generation with new skills, knowledge and ideas, the higher education in the Organization of Islamic Cooperation (OIC) countries, however, continues to be faced with great challenges such as lack of financing, faculty and staff development, skill-based training, quality of teaching and scarcity of research fund. In the meantime, the higher education is opened up to new technological innovation and opportunities that are improving the ways in which knowledge is produced, managed, disseminated, accessed and controlled.

It is imperative that the Ummah accords more attention to the promotion of quality higher education and develop comprehensive and objective methodologies to evaluate the performance of its universities. In appreciating the issue and in responding to the growing demand of the market-forces of Knowledge-economy (K-economy), a fresh look is needed to re-examine the higher education system in the OIC countries in terms of its quality and relevance.

The Vision 1441 on Science and Technology adopted by the 10th Session of the Islamic Summit held in Putrajaya, Malaysia in 2003 declared that the OIC member states are committed to become a community that values knowledge, and is competent in advancing Science and Technology and in utilizing it to enhance their socioeconomic well-being.

The Strategy for Science, Technology and Innovation for the Islamic World adopted by the 10th Session of the Islamic Summit held in Putrajaya, Malaysia in 2003 and updated by the 4th Islamic Conference of the Ministers of Higher Education and Scientific Research held at Baku, Republic of Azerbaijan, in October 2008, stressed the importance of sustained and enduring investment in human capital development representing the knowledge, potential, drive, skills and all other essential attributed that are embodied in individual to meet the challenges of 21st century. It also highlighted the Islamic perspective on education, particularly the fundamental values and ideals underlying the edification of the individual and society as well as ethics in scientific and technological applications and their social, cultural and economic implications.

The Third Extraordinary Islamic Summit held in Makkah-al-Mukaramah in December 2005 adopted the OIC Ten-year Program of Action that calls for effective improvement and reformation of the educational institutions and curricula at all levels in the OIC member states. A mechanism to meet and achieve the decision is to encourage the universities within the OIC region to improve their

standards of quality, especially the universities with potential to become world class universities to the rank of Top 500 World Universities.

As a result, an informal open-ended meeting of the Ministers of Higher Education was convened in Kuwait City, the State of Kuwait on 20 November 2006 and discussed procedures and mechanisms of improvement of universities' performance. The meeting decided to form a technical expert team to develop technical solutions that urge the Member States to strive for quality education that promotes creativity, innovation, and research and development.

A Technical Experts Meeting was convened in Tehran, the Islamic Republic of Iran on 19 – 21 February 2007 to draft a document containing proposed criteria, procedures and mechanisms for ranking of universities in the OIC region. The draft document was distributed to all OIC member states, as reference for the Seminar of OIC member states held in Tehran, the Islamic Republic of Iran on 29 – 30 April 2007.

Representatives of the OIC member states reviewed the document with the aim of seeking consensus on the proposed criteria, procedures and mechanisms for ranking of universities. The amended document was placed before the Fourth Islamic Conference of Ministers Higher Education and Scientific Research, held in October 2008, in Baku, Republic of Azerbaijan. The conference recommended further examination of the subject and the document.

The 37th Council of Foreign Ministers of the OIC member states, that met in Damascus, Arab Syrian Republic in May 2009 requested the OIC General Secretariat to convene an extraordinary meeting of the Ministers of Higher Education and Scientific Research, in collaboration with the ISESCO, to receive the feedbacks with the purpose of preparing the final document as a basis for future decision concerning implementation. The Kingdom of Saudi Arabia offered to host the Extraordinary Meeting of the Ministers of Higher Education and Scientific Research in Riyadh. A preparatory Technical Meeting of experts was held in Riyadh on 24 - 25 April 2010. The university rankings document was constructively debated, and it was recommended to amend its criteria, procedures and mechanisms for OIC university ranking as “Key Performance Indicators for Universities in the Islamic World to compete with world class universities”.

The 5th Islamic Conference of Ministers of Higher Education and Scientific Research in Kuala Lumpur, 19 – 20 October 2010 reviewed the recommendations of the Riyadh meeting and requested the OIC General Secretariat and ISESCO to prepare a draft document on “Key Performance Indicators for the Universities in the Islamic World”, and present it to the Extraordinary Islamic Conference of the Ministers of Higher Education and Scientific Research, to be hosted by the Kingdom of Saudi Arabia.

World University Rankings: A Professional Outlook

Over the past ten years, several mechanisms for rankings of universities have been introduced in the higher education (HE) sector. The results and acceptance of those rankings have not always been consistent or agreeable. Furthermore, many HE organizations started reviewing university rankings on a critical basis attempting to bring logic and sense to this issue that witnessed growing criticism from many educationists and decision makers around the world. This document finds these views worth reporting and considering as they relate in many ways to the targeted goals of the task.

The UNESCO Forum on "Rankings and Accountability in Higher Education" held in Paris in 16-17 May 2011 was a unique chance for HE professionals to obtain an update on the university rankings and the developments of the attitude towards them.

Professor Ellen Hazelkorn, Vice President, Research and Enterprise, and Head of Higher Education Policy Research Unit (HEPRU) in Dublin, Ireland, confirmed that:

- "Governments should stop obsessing about global rankings and the top 1% they risk transforming their higher education system and institutions, and subverting other policy objectives, to conform to indicators designed by others for other purposes;
- What matters is how governments prioritize their objectives of a skilled labor force, equity, regional growth, better citizens, future Einsteins (scholars) and global competitiveness, and translate them into policy;
- Benchmarking should be used to improve the capacity and qualities of the whole system-- not simply reward the achievements of elites and flagship institutions."

Barbara Ischinger, Director for Education, OECD, Paris, said in her presentation, "the subtitle of the (UNESCO) meeting 'uses and misuses' is not chosen by accident: the rankings that we currently have available –for all the care that goes into compiling them – fall short of capturing the range and depth of what universities and other higher education institutions do."She discusses the origins of university rankings, "Rankings first came to prominence at national level and were usually developed by media companies to make that information available in an easy-to-read way. All the information in them was either publicly available or obtained by survey."

Highlighting the importance of aspects of university functions, she adds, "The contribution that higher education makes to economic, social and cultural development, goes far beyond teaching and research. The tools at our disposal for evaluating and improving higher education are still rudimentary."

To explain the difficulties professional organizations face to measure such functions, she said,"

My team has been analyzing at regional level the complex interactions between higher education systems and institutions, and the places they inhabit. We have learned many important lessons from this work – about how higher education can contribute to economic, social and cultural development, and about the mechanisms and incentives that can help. But we also find – and I know the European Commission's U multi-rank project is finding this as well – that these interactions are very hard to measure and compare, and are therefore undervalued."

She concludes, "At a time when governments and families are financially stretched, we need to know how effectively money is being used. So accountability is about far more than rankings." She explains, "they are not the whole story and there is a problem when tools intended to provide information for students and their families are used to drive policy decisions," adding that, "universities do much more than research –the great majority of them are primarily or even exclusively teaching institutions and the existing international rankings tell us nothing about teaching and learning outcomes". These views reflect the importance of outcomes in higher education being the priority rather than ranking which is trendy and highly limited in scope in measuring performance.

Objectives

The 5th Islamic Conference of Ministers of Higher Education and Scientific Research (Kuala Lumpur, October 2010) requested to prepare a document on Key Performance Indicators based on recommendation of the report of the Technical Meeting of Experts on the Ranking of Universities in Islamic World held in Riyadh, Kingdom of Saudi Arabia on 24 - 25 April 2010.

The 5th Islamic Conference of Ministers of Higher Education and Scientific Research further requested to produce a document containing proposed key performance indicators, guidelines and procedures for adoption by interested universities for self-assessment with a view to improve quality of education and research.

This document seeks to learn from the best practices around the world and propose the KPIs that can be derived from those international experiences. This document proposes learning from the internationally acclaimed success stories in higher education performance and deriving the key performance indicators (KPI) in those universities to reflect them in the KPIs this document seeks to propose. For example, many top universities have some hallmarks such as

1) emphasis and excellence in research,
2) good governance,
3) academic freedom,
4) adequate facilities / infrastructure,
5) adequate funding,
6) quality of faculty,
7) talented undergraduate body,
8) international presence, and
9) multi-disciplinary programs.

Universities around the world have three main functions to serve: teaching, research, and community service.

Quality in providing these services is measured through different media. Quality assurance agencies and accreditation boards are important bodies that monitor the provision of those services. Accreditation and quality assessments depend heavily on the provision of performance data, processes, and operational descriptions.

Beneficiaries of these KPI in the OIC member states include:

- Higher education systems in the OIC member states;
- Students, parents, and communities in the OIC member states;
- Trade and industry investors;
- HEIs in the Muslim world;
- Engaged human resources;
- Research Centers and programs;
- Innovation and creativity initiatives.

Expected gains of enhancing KPI in higher education institutions are limitless, but can be exemplified in the following:

- Socio-economic well-being of the Ummah in general, and every OIC state in particular.
- Increasing the student enrollment, recruitment of faculty members, and production of skilled manpower for each nation.

- Diversifying economic resources for Islamic states, especially those that depend heavily on single or limited natural resources.
- Excellence in research leads to further resource generation through collaboration with the different industries by providing consultancies and earning projects with local and international partners.
- Empowering universities to have better impact on their respective societies to turn them into knowledge-based economies.
- Enhancing universities' reputation and international presence and acceptability, especially in this globalized era.
- Improving local and international employability of OIC members states universities,
- Encouraging student and faculty mobility among the OIC members states universities which in turn, will lead to better understanding and cultural enrichment.
- Helping OIC member states universities manage their activities, prioritize their focus, build their competences and capacities, and allocate higher resources.
- Closing / bridging the gap between OIC member states universities and their international counterparts.

Key Performance Indicators

Key Performance Indicators (KPIs) were identified for five major criteria. They were selected using the SMART concept, keeping in view in particular the simple and measurable indicators. The KPIs for all the five major criteria are given in Table 1. They reflect the priorities observed in international scales. Knowledge of such priorities allows university leaders to reengineer their activities and reprioritize them to achieve an improved performance that matches the quality standards.

Table 1

KEY PERFORMANCE INDICATORS FOR RESEARCH-CAPABLE UNIVERSITIES

CRITERION	INDICATOR
Criterion Research	• Research quality • Research performance • Research volume • Patents • External Research grants and chairs
Teaching	• Graduate employability • Student enrolment and retention • Students success rates in standardized and professional examinations • Frequency of curriculum reviews and development • Modernity of teaching references and textbooks • Ratio of expenditure on non-salary items to total budget such as teacher training, equipment, IT & Library services, and student-related expenditure • Assessment of teaching quality • Ratio of faculty members with PhD to total number of faculty • Ratio of faculty to students • Faculty members with awards • Ratio of faculty members with terminal degrees from other institutions to total number of faculty
International out-look	• Ratio of international faculty to total faculty • Ratio of faculty members with foreign higher degrees to total number of faculty members with local degrees • Ratio of International students to total students • International cooperation through programs such as twinning, visiting scholars, service contracts and collaboration projects • International conferences organized

CRITERION	INDICATOR
Facilities, Resources, and Supporting Staff	• Number of library holdings and book titles per student • Number of accessible up-to-date journals / periodicals • Availability and diversity of learning materials and resources • IT facilities and accessibility to e-resources • Adequacy of learning and teaching-related infrastructures and fieldwork- related facilities • University experience enhancement opportunities • Adequacy of trained and skilful supporting technical and office staff
Socio-economic impact	• Lifelong learning and community service programs • Industrial linkages and Coop. programs • Alumni-university links • Entrepreneurship programs • Consultancies and contracts incomes • Number of market linked academic majors • Industrial Projects and Spin-off companies.

In Appendix #1 additional details of the above table with suggested example of probable weightage has been displayed.

Most universities in the OIC member states have priorities that emphasize more on their respective national development plans with emphasis on teaching activities and community service. A common belief attaches excellence to international recognition as being consequential and restrictive for quality, which is not true. Quality assurance can be achieved at different levels and should not be restricted to one aspect only. New directions in the vision of quality assurance in higher education are now becoming more popular around the world. Shift to outcome-based approaches in higher education is noticeably replacing the fading interest in ranking systems.

Since most universities put teaching on the top of their priorities, more focus on the teaching-related KPIs requires a different handling of those KPI and different distribution of attention to the involved details. Table 2 reflects the nature of that distribution and prioritization.

Table 2

KEY PERFORMANCE INDICATORS FOR THE ENHANCEMENT OF QUALITY ASSURANCE IN TEACHING UNIVERSITIES

CRITERION	INDICATOR
Teaching	• Graduate employability • Student enrolment and retention • Ratio of faculty members with PhD to total number of faculty • Frequency of curriculum reviews and development • Students success rates in standardized and professional examinations • Modernity of teaching references and textbooks • Ratio of faculty to students • Assessment of teaching quality • Ratio of expenditure on non-salary items to total budget such as teacher training, equipment, IT & Library services, and student-related expenditure • Faculty members with awards • Ratio of faculty members with terminal degrees from other institutions to total number of faculty
Research	• Research quality • Research performance • Research volume • External research grants and chairs • Patents
International out-look	• Ratio of international faculty to total faculty • Ratio of International students to Total students • Ratio of faculty members with foreign higher degrees to total number of faculty members with local degrees • International cooperation • International conferences organized • International Exchange Programs
Facilities, Resources, and Supporting Staff	• Number of library holdings and book titles per student • Number of accessible up-to-date journals / periodicals (hard and soft copies) • Availability and diversity of learning materials and resources • Adequacy of learning and teaching-related infrastructures • University experience enhancement opportunities • Adequacy of trained and skilful supporting technical and office staff

CRITERION	INDICATOR
Socio-economic impact	• Lifelong learning and community service programs • Industrial linkages and Coop. programs • Entrepreneurship programs • Number of market linked academic majors • Size of university endowments • Alumni-university links • The HEI's success in meeting relevant national developmental demands

Suggested Process for Using the KPI

The KPI in this document are built with both, international competitiveness and performance quality assurance in consideration. It is assumed that international competitiveness does not go against quality assurance, whatever the local developmental demands and challenges may be.

Using the Self Assessment Form (SAF) for OIC member states (Appendix #1), and in conjunction with KPI Glossary (appendix #2) universities can determine where they stand and then make informed decisions on where improvement should be done. The form explains how each item should be understood and interpreted in the field.

This easy process allows universities to engage its staff in a diagnostic assessment of what the institution needs and where it should start its improvement. This tool should be helpful in setting the scene for quality assurance right in HEIs.

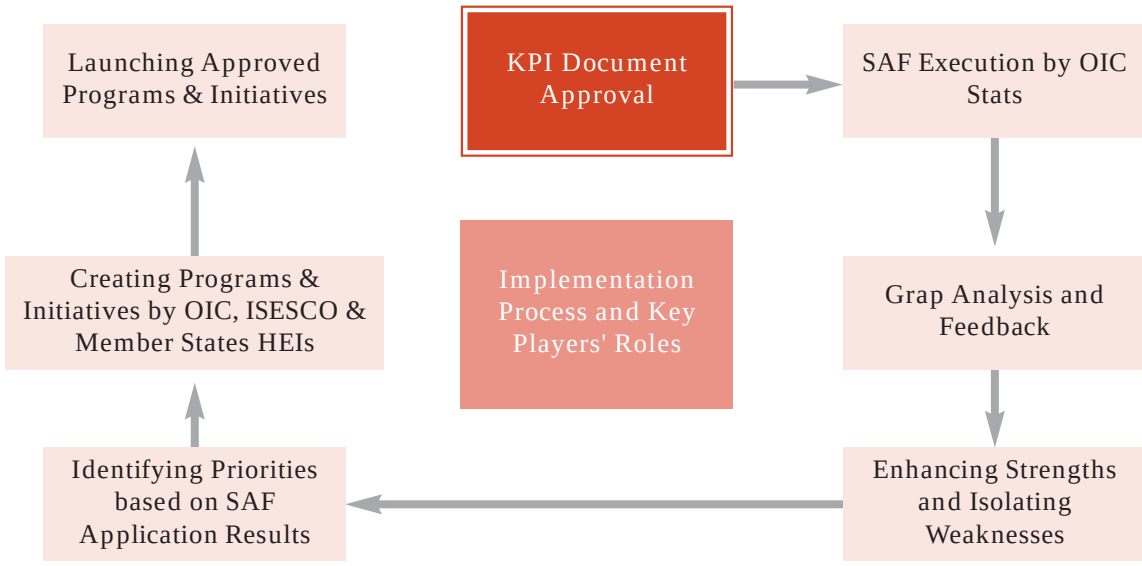

Fig. 1. Suggested Implementation Process explaining the roles to play, the order of actions, and proposed involvement of different organizations.

This mutual process requires both the OIC member states and the relevant organizations to play certain roles that, when completed properly, enhancement of the OIC member states HEIs performance is expected to improve and move to the right direction in light of the KPI provided in this document.

Recommendations and Suggested Performance Targets

The OIC Vision 1441H on Science and Technology adopted by the 10th Islamic Summit Conference, Putrajaya, Malaysia, 2003, states that "OIC Member States are committed to become a community that values knowledge and is competent in utilizing and advancing Science and Technology, to enhance the socio-economic well-being of the Ummah". In light of that, a number of targets are suggested to be achieved by the OIC member states.

TARGETED ACHIEVEMENTS

The OIC has set a number of targets to achieve by 1441H. These targeted achievements can be accomplished through a group of actions that are discussed in the KPI presented in this document:

- Workforce:
  To achieve workforce of at least 1441 researchers, scientists and engineers per million by 1441 Hijri;

- Scientific Output:
  To achieve at least 14% of World's scientific output by 1441 Hijri;

- Research:
  o R&D Support:
  To increase the investment in R. & D. to receive at least 1.4% of GDP;

- Benchmarking Investment in Education:
  To increase the investment in education in the OIC states' GDPs to benchmark with international standards;

- Student & Faculty Mobility:
  To encourage interstate harmony through the increase of student and faculty mobility among OIC universities for undergraduate and post-graduate education and research in institutions of higher learning in member states;

- Development of Human Resource for Research:
  To take advantage of existing centers of excellence in Muslim countries for training of Muslim scientists;

USE AND IMPLEMENTATION OF THE KPI DOCUMENT

The document provides guidelines, advice, and suggestions on the development of the higher education practices in the OIC member states universities to improve their provision of reliable and productive learning experience for its students, university visibility, outstanding research output, and socio-economic impact on their respective communities. Using this document entails a range of changes such as spending, interaction, and improvements at all levels.

A number of recommended actions are displayed in the next table for the OIC member states to reflect in their implementation of each KPI category. It details the suggested overall actions and leaves the execution to the respective universities, yet it gives less detail on the execution level.

It is a prerequisite for this KPI document to be followed by seminars, workshops, and meetings organized by the OIC and the relevant organizations inclusive of ISESCO to move these recommendations forward through discussions and thorough collaboration between the OIC member states universities.

SUGGESTED MECHANISMS:

1. Encouraging to consider Establishing (Quality Assurance Units) in every Ministry of Higher Education (MOHE) and university in the OIC members states. There is also a need to collaborate and network with other related agencies working in this endeavor, namely the Quick Win project in education by IDB, the Malaysian Accreditation Agency in their networking of accreditation agencies in the universities in the Islamic world and the Federation of Universities in the Islamic World (FUIW) through their bureau of capacity building in quality assurance and accreditation in the Muslim world.

2. Organizing awareness and "how-to" seminars and workshops organized by the OIC and ISESCO to introduce and enhance the success potential in implementing the document. Such seminars and workshops could include themes and topics such as quality assurance, best practices (administrative & curricula), protection from brain drain, networking of universities / centers of excellence, exchange of faculties on short term and / or deputation basis, and exchange of publications.

3. An OIC / ISESCO follow-up standing working committee from comprises staffed by KPI experts from the OIC member states to brainstorm, develop, and prioritize a list of suggested OIC and ISESCO programs and participate in providing consultative services, seminars, and workshops for interested OIC member states, as exemplified in detail in Table 3.

Table 3

EXAMPLES OF SUGGESTED AREAS OF ACTIVITIES FOR THE IMPLEMENTATION OF KPI

RECOMMENDATIONS ON THE IMPLEMENTATION OF KPI	
TEACHING	
Graduate employability • Improve linkage to the local and regional markets. • Encourage Coop programs. • Tie programs to the market needs, and restructuring the HEI's programs to achieve that.	Student enrolment and retention • Establishing and supporting Career Guidance Centers within HEIs in the OIC member states. • Facilitating access to HEI's programs and increasing funding for college students. • Improving extracurricular activities and

TEACHING

cultural events to enhance university experience and have them engaged in healthy activities.

- Developing and deploying student support programs and academic advisory units to help low achievers and struggling students overcome their problems.
- Encouraging preparatory and foundation programs in the OIC HEI's to reduce student attrition and improve the readiness of secondary school graduates for college.

Ratio of faculty members with PhD to total number of faculty

- Increasing funding for post-graduate programs and scholarship grants.
- Attracting highly skilled and qualified faculty members through incentives and provision of good and supplementary facilities and services.

Frequency of curriculum reviews and development

- Regulating curriculum reviews on legislative grounding to turn it into a mandatory practice at regular, intensive, and thorough intervals in the OIC HEIs.
- Establishing administrative units in the OIC HEIs that undertake the development of curricula through cooperation with faculty members and international libraries and counterparts.

Students success rates in standardized and professional examinations

- Help students prepare for professional examinations.
- Link curricular goals to professional examinations.

Modernity of teaching references and textbooks

- Setting an expiration date for textbooks and references leading to consequent replacement with updated resources.
- Allocating adequate funding for textbook updating through authoring or external purchases.
- Encouraging respect to copyright laws, especially for local authors to encourage authorship and innovation among the OIC HEI's scholars.

Ratio of faculty to students

- Raising the awareness on the importance of this ratio for quality.
- Developing career guidance programs for secondary school students to help them make more informed decisions on their choice of major and career.
- Enhancing admissions based on competitive performance of secondary / high school graduates.

Assessment of teaching quality

- Introducing student assessment of teaching.
- Diversifying teaching quality assessment tools through peer reviews, pair work, visitations, etc.
- Learning from international best practices and implementing those practices by adoption or adaptation to fit the local setting.

Ratio of expenditure on non-salary items to total budget.

- Encouraging teacher training programs, exchange initiatives,
- Allocating adequate funding for equipment and IT & Library services
- Boosting other student-related expenditure

Faculty members with awards

- Encouraging the existing faculty to target international recognition.
- Attracting international established faculty to work in the OIC universities.
- Participation in international events to network with international counterparts and introduce local OIC universities' achievements to international events and research centres.

Ratio of faculty members with terminal degrees from other institutions to total number of faculty

- Encouraging diversity, novelty, and introduction of new ideas.

RECOMMENDATIONS ON THE IMPLEMENTATION OF KPI

INTERNATIONAL OUT-LOOK

Ratio of international faculty to total faculty

- Embracing the concept of international faculty presence on campus.

Ratio of International students to total students

- Embracing the concept of international students' presence on campus.
- Allocating more seats for international students to enrol in local OIC universities
- Encouraging exchange programs and mutual funding for student mobility initiatives.

Ratio of faculty members with foreign higher degrees to total number of faculty members with local degrees

- Giving priority in employment to graduates with diversified skills and qualifications awarded from different HEIs.
- Discouraging inbreeding of faculty members throughout the OIC universities.

International cooperation

- Launching programs for twinning, visiting scholars, service contracts and collaboration projects among OIC universities, and between them and international counterparts.
- Encouraging split and joint-degree programs.

International conferences organized

- Establishing more annual and regular academic conferences, symposia, and training workshops, specifically under the ISESCO umbrella.
- Funding international participation for faculty members in international conferences, especially the reputable ones.

International Exchange Programs

- Increasing the number of operating programs and beneficiaries.
- Encouraging OIC universities' faculty members to target internationally acclaimed exchange programs such as the British Council, Fulbright, A. Von Humbalt Programs, etc.

FACILITIES, RESOURCES, AND SUPPORTING STAFF

Number of library holdings and book titles per student

- Increasing funding for the increase of titles and holdings.

Number of accessible up-to-date journals/periodicals (hard and soft copies)

- Increasing funding for the increase of subscriptions.
- Encouraging joint and group subscriptions by OIC universities to reduce the costs

Availability and diversity of learning materials and resources

- Increasing funding for obtaining learning materials and resources.
- Increasing funding for authoring and media production and learning resources generation programs.
- Interlibrary loans among OIC member states universities.

Adequacy of learning and teaching-related infrastructures

- Acquiring state-of-the-art laboratory equipment
- Provision of adequate logistics and funding for fieldwork related activities.
- Maintaining adequate IT influence on academic infrastructures.

University experience enhancement opportunities

- Enhance student support programs, sporting facilities and recreational facilities.
- Improving other extracurricular activities and cultural events.
- Support study tours and student mobility.

Adequacy of trained and skilful supporting technical and office staff

- Labs should have adequate and skilful technical staff
- Office staff should be competent and efficient

RECOMMENDATIONS ON THE IMPLEMENTATION OF KPI

SOCIO-ECONOMIC IMPACT

Lifelong learning and community service programs

- Offering distance and traditional, short and long term courses to all age groups of the society
- Encouraging and facilitating students to participate in community services programs.
- Utilizing student volunteers' contribution towards community awareness regarding different environmental and health issues.

Industrial linkages and Coop. programs

- Promoting industry-university linkages
- Developing curricula to involve internships and field training in relevant industries prior to graduation.
- Enforcing a legislation for industries to make substantial arrangements and specific programs for student training and internships as part of their social responsibility towards OIC communities.

Entrepreneurship programs

- Encourage and instil the spirit of entrepreneurship in the students through training programs, curricula, and awareness.

Number of market-linked academic majors

- Encourage curricula development in consultation with the industry players.
- Analysing unemployment rates, professions, and causes to reengineer university majors to avoid further increase in unemployment.

Size of university endowments

- Devising strategies for attracting funds to the university.
- Creating chairs to attract philanthropists to invest in the universities.

Alumni-university links

- Keeping a record of alumni, communicating with them consistently, and creating unions for alumni with homecoming activities.
- Engaging alumni in enhancing university endowments and reputation.

The HEI's success in meeting relevant national developmental demands

- Providing support in preparation of national policies.
- Establishing higher education councils that bring together all stakeholders to work hand in hand in planning and developing the higher education system.
- Providing expert advice in development and implementation of R&D projects.

RESEARCH

Research quality, performance, and volume.

- Review of research procedures, facilities, funding, and all relevant components and mending the shortcomings to uplift the quality of outcomes.
- Raising awareness of prominent and internationally acclaimed journals and periodicals to be targeted by publication.
- Encouraging OIC member state universities to enlist their journals and develop them to qualify to become part of international indexes such as ISI and similar indexes.
- Encouraging multi-authorship, multi-disciplinary, cross-national, and cross-cultural research projects, especially between the OIC member states universities.
- Identify general indexes for major languages spoken in the OIC member states.

Patents

- Establishing support units for patent registration for local researchers.
- Encouraging the transformation of patents into marketable products to support the transition of OIC member states economies into knowledge-based economies.

External Research grants and chairs

- Encouraging local industries, businessmen, and community leaders to contribute to university efforts through grants and chairs.
- Mandating social responsibility measures to be implemented in trade, foreign investment, and industries through grants, scholarships, and research chairs.
- Motivating faculty members to attract grants and compete for that.

A successful application of the KPI for quality assurance in universities from the OIC region would demand full commitments, support and cooperation from all interested parties of the OIC members states. All participating member states are expected to share the proper understanding of the KPI's consequent actions, for their own HEI's benefit and the fulfillment of the OIC targeted achievements and goals.

Conclusions

The proposed KPI in this document builds on the preceding efforts of fellow experts and policy makers carried out in Baku, Tehran, Damascus, Kuala Lumpur, and Riyadh. Having been developed into a KPI document, it should contribute to the significant improvement of the quality of the OIC member states universities' programs and activities. These KPI are profoundly based on the deep understanding of the nature of challenges and problems under which the OIC member states universities operate. These KPIs merge the international expectations and standards in higher education performance together with OIC universities capabilities, resources, and expected challenges. They also respond carefully to OIC local communities' needs and foresee their hoped future.

While international competitiveness is viewed as an attainable goal for a number of the OIC member states universities, priorities remain the most influential factor in determining the ability of these universities to live up to their local communities expectations, respond to the local demand and developmental needs, and then look for a better place at the international level. This document is founded on the understanding that all these goals can be targeted and achieved without sacrificing any or implementing any at the expense of the other.

Appendix # 1

A SUGGESTED SELF-ASSESSMENT FORM (SAF) WITH WEIGHT BREAK-DOWN FOR KPI

Research-Enabled Universities

CRITERION	INDICATOR
Research 45%	• Research quality • Research performance • Research volume • External research grants and chairs • Patents
Teaching 35%	Ratio of faculty members with PhD to total number of faculty • Ratio of faculty to students • Faculty members with awards • Ratio of faculty members with terminal degrees from other institutions to total number of faculty • Frequency of curriculum reviews and development • Ratio of expenditure on non-salary items to total budget such as teacher training, equipment, IT & Library services, and student-related expenditure Student enrolment and retention • Graduate employability • Students success rates in standardized and professional examinations • Modernity of teaching references and textbooks • Assessment of teaching quality
International out-look 10%	• Ratio of International students to total students • Ratio of international faculty to total faculty • Ratio of faculty members with foreign higher degrees to total number of faculty members with local degrees • International cooperation through programs such as twinning, visiting scholars, service contracts and collaboration projects • International conferences organized
Facilities, Resources, and Supporting Staff 3%	• Adequacy of learning and teaching-related infrastructures and fieldwork- related facilities • IT facilities and accessibility to e-resources • Availability and diversity of learning materials and resources • Adequacy of trained and skilful supporting technical and office staff • University experience enhancement opportunities • Number of library holdings and book titles per student • Number of accessible up-to-date journals / periodicals
Socio-economic impact 7%	• Industrial linkages and Coop. programs • Number of market linked academic majors • Entrepreneurship programs • Consultancies and contracts incomes • Lifelong learning and community service programs • Alumni-university links • Industrial Projects and Spin-off companies.

* Items suggested priorities.

* Proposed allocations of weightage for teaching universities: Teaching (50%), International Outlook (15%), Facilities (5%), Socio-economic impact (15%), and Research (15%).

Appendix #2

KPI GLOSSARY

QUALITY OF PUBLICATIONS

According to the international standards, only the journals classified by the Institute for Scientific Information (ISI) and covered by the Science Citation Index (SCI) and the Social Sciences Citation Index (SSCI), should be used both for counting publications and citations.

FACULTY MEMBERS

Faculty members mean persons that perform either a teaching or a research activity in the given institution, either as permanent affiliated persons or on a full time, contractual basis for no less than one semester. In this latter case, each semester gives a credit of ?.

RESEARCH QUALITY

This indicator aims to measure the quality of the performed research, compared with the mean quality of all of the World research.

It is internationally admitted that the quality of a given published article can be measured by the number of citations it receives.

RESEARCH VOLUME

This indicator aims to measure the volume of the research production of the faculty members in ISI journals.

FACULTY MEMBERS WITH AWARDS

This indicator reflects the recent presence of "outstanding" faculty members in the institution. For a present/previous faculty member to give credit to the institution with regard to this criterion, he/she has to have won the award either while he/she is affiliated or before he/she becomes affiliated to the institution.

The awards that are considered for this indicator include international and OIC ones: `Nobel prize, Fields medals, FAISAL, IDB, IAS, KHARAZMI, RAZI, ISESCO, TWAS, etc.

An OIC committee will decide about the eligibility of other claimed awards.

The awards shall not include post-doctorial and other research fellowships.

FACULTY HIGHLY CITED RESEARCHERS

This indicator also reflects the presence of "outstanding" faculty members in the institution. For a present/previous faculty member to give credit to the institution with regard to this criterion, he/she has to be Highly Cited researcher either while he/she is affiliated or before he/she becomes affiliated to the institution.

As Highly cited researchers conforming to ISI (international) standards are too few in the OIC countries (only 4 researchers of now), it was decided, in order to allow a larger participation, to come out with an OIC standards for HiCi researchers.

There is no weighting and no limitation on the period of time that would have eventually elapsed after the Highly Cited researcher has left the institution, i.e.: it suffices for an institution to have hosted a Highly Cited researchers, according to the conditions on faculty members given in the preliminaries of these technical notes, to receive full credit.

THE INTERNATIONAL OUTLOOK CRITERION

Other ranking schemes have not attached uniform importance to this parameter. It is, however, felt here that internationalization of a university has a positive impact on its teaching

quality, research output, socio-cultural understanding and, ultimately, reputation. It was, therefore, agreed to give credit to institutions that have international faculty and students, staff with PhDs from outside the country where the university is located, and participation in international exchange programs.

INTERNATIONAL EXCHANGES

By international exchange program it is meant an institutional agreement between the university under consideration and a foreign entity that is operating, in the sense that at least one person, either faculty or student, has used it in the previous three years.

This indicator aims to measure the intensity of international exchange programs, both in quantity and in quality.

THE SOCIO-ECONOMIC IMPACT CRITERION

In classical sense, the basic functions of a university include the maintenance, dissemination and creation of knowledge. The rapidly changing global economic scenario and social dynamism require that education must have relevance to society. Many argue, quite genuinely, that the foremost responsibility of scientists and scholars is to promote the welfare of the society. Although all universities are essentially involved in human resource development through their degree programs, there are other areas that merit encouragement. Indeed these ensure sustainability of the university system, its reputation, and its "universality".

ENTREPRENEURSHIP PROGRAMS AND INDUSTRIAL LINKAGES

This indicator focuses on the "entrepreneurship courses"; that are courses that aim to teach students how to start a company, how to manage a company, etc.

The term 'entrepreneurship' supports the innovative ideas put forward by university students and endeavours to transform the creative ideas into products through introducing these ideas to the industrial sector, factories, companies, etc., of the society, which will also bear about job opportunities for the university students.

NUMBER OF INCUBATED PROJECTS AND SPIN-OFF COMPANIES

This indicator is considered as incubation and creation of spin-offs play an important role in commercializing the research outputs of the university faculties and/or graduates.