Managing Educational Program of Indonesian Islamic Higher Education by Digitalization

Dede Rosyada[1], Andriyani[2] and Marhamah[3]
[1]State Islamic University Syarif Hidayatullah Jakarta
[2]Jakarta Muhammadiyah University
[3]Jakarta Islamic University

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Abstract: Islamic Higher Education (IHS), particularly institutes and colleges are mostly organizing pure science, such as Islamic Philosophy, Islamic history, Arabic literature, and even Qur'an exegesis. Indeed, these departments never give skill training to enter labor market, while the alumni need it. Thus, such Islamic higher education should be creatively to innovate and redesign curriculum by adopting Indonesian Qualification Framework (IQF), combining knowledge and skill even in the different discipline. Then, for perfecting knowledge competence among students, all learning materials, modules, papers, e-book, should be digitalized and are stored in the accessible repository, to make it easy for students to learn anytime and anywhere. And to help them flexible in learning, IHS also should extend the function of internet for being the tool of learning by developing online classes, online communities amongst all classmate students as peer group, and to help them broadcasting their academic experience, new discoveries, and content of learning for discussion.

1 INTRODUCTION

Indonesia is implementing a unique system in managing higher education by organizing dual system between ministry of higher education and research and ministry of religious affairs. Bill of higher education number 12 year 2012, mandated to the Indonesian government to develop Islamic higher education (2012), beside madrassa and the other education programs from other religions. Islamic higher education is consisting of three kinds, university, institute and college. Islamic college is focusing for a small groups of Islamic study, while Islamic institute is organizing a big number of islamic disciplines, and university is extended to develop secular science by a mission to integrate general science and religious doctrine (Minhaji, 2007).

Nowadays, Islamic higher education has been developing significantly by improving the number of institutions. Ministry of Religious Affairs is mandated to manage 17 state universities, 34 state institutes and 7 state colleges, and the others are 96 religious faculties of the secular and private universities, 48 private religious institutes, and 499 private religious college (Direktorat Jendral Pendidikan Islam Sub Direktorat Kelembagaan Diktis, 2017). The challenges for Islamic higher education are producing creative and innovative scholars and preparing them to enter the market, as a mission from Indonesian Qualification Framework (IQF), while core business are mostly non market oriented. The coming of digital era amid the implementation of IQF are being favorable to solve such problems in all kinds of academic works, market access and opportunities, networking, research, curriculum development, learning process and material. How to manage Islamic higher education by optimizing digital facilities for academic works, curriculum, learning process and materials, research and community outreach. These are some focuses in this paper.

1.1 Modernizing Islamic Higher Education by Digitalization

Almost all Islamic universities, institutes and colleges in Indonesia today are operated in a digital community. They got all information about the campus live from website, whether academic reputation, faculty and department, curriculum, teaching, research and publication, conference and community outreach program, social expectation, student body, dormitory, all are available in such

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digital information. "Digitalization can thus be understood and used as a means for modernizing teaching, research, and higher education institutions' administration to successfully deal with the increasing heterogeneity of students, to manage the trend of academic achievement and to provide individual support despite large numbers of students. Digitalization also contributes to modernization in terms of general technological measures such as infrastructure (Wi-Fi) that are (or should be) implemented in all higher education institutions as part of a "digital mainstreaming" (Dräger, 2017).

A long with it, digitalization as part of modernizing university in term of campus services for the students, are also needed to facilitate learning process to develop technology based learning. Some key elements to be placed are including:

1. Availability of Digital repositories / Digital databases
   This enables the capture, storage, easy retrieval and reuse of instructional and learning content. Knowledge resources that are to be shared among a community of learners could be placed in a digital repository. Further, access to standard digital databases would also be required to provide learners with a vast array of information.

2. IT infrastructure
   Information technology infrastructure involving a combination of appropriate hardware, software, network connectivity etc, and Internet / Wi-fi facility is required. The availability of videoconferencing and web- conferencing tools also need to be looked at.

3. Technology deployment in knowledge dissemination
   Faculty members need to look at usage of presentation software, statistical tools, and other software packages. The utilization of graphics, simulation, and other such mechanisms positively influence the effectiveness of knowledge dissemination.

4. Automation of processes
   The automation of processes such as tracking of learner performance, learner assessment, library related transactions, etc. is required to enhance effectiveness of the learning process.

5. IT-enabled culture
   The institution, faculty members and learners should accept the wide usage of information technology in the education process. Such extensive usage of digital instruction tools, digital resources, etc. and knowledge sharing / information sharing in a digital mode may require a cultural change to avoid resistance (Meenakumari & Krishnaveni, 2010).

Digitalization in Islamic higher education will enable to increase the number of participation of the society, not only the traditional students 19 year old secondary school graduates, but also single fathers, female managers, the old retirement people to kill their spare time while enhancing understanding about religion to guideline their live. And also, digitalization will enable students to extend their networking across the world for developing their academic experience and even for business communication. For those purposes, Islamic higher education should modernize its curriculum while appreciating the market request.

2 LITERATURE STUDY

2.1 Curriculum Development to Adopt IQF

Main mandate of Islamic Higher Education (IHE) is to develop Islamic knowledges that mostly aren't connected to the market work, while all alumni of undergraduate studies from educational system in IQF, must be able to enter labor market. That is a dilemma of Islamic higher education by a mission to maintain some Islamic disciplines, such as theology, philosophy, Qur'an exegesis and so forth, while in the other side, it has to give a great attention market linearity for the alumni. So, a modern Islamic higher education is requested to reformulate its curricula by regarding both the uniqueness of Islamic discipline and market demand. Curriculum, actually, is general description about some attainable core competencies by students, description of learning activities, and also learning environments. Ronald C Doll, as it was cited by Dede Rosyada, stated, that curriculum is all provided experience for the students under the guidance of university (Rosyada, 2013). Islamic higher education, institutionally should provide academic program for its students both for knowledge competence and skill of works relates to the market needs, locally, regionally or even for global competitiveness, whether in line with the discipline of department or beyond it.

As a developing country, Indonesia needs to upgrade knowledge and skills of its workforce in order to sustain national economic growth, as well as maintain a competitive position globally, and it should be started from the education programs, particularly at the university, where some Indonesian human resources are educated and well provided to enter labor market, including in the Islamic higher education, and mostly are majoring in pure knowledge, such as philosophy, history, literature and so forth, but, all alumni need to get better job in the professional workplace. In the specific terms, this means that Islamic higher education is also mandated by IQF to produce more qualified people in skill and expertise, to access better jobs, earn higher salaries and improve their quality of life. In this context, higher education institutions have to re-conceptualize the notion of learning result as a means of building up knowledge and skill simultaneously. Higher education needs to be balanced between student expectations and market requirements (Aylwin & Farcas, 2017), it means that all curricula of Islamic Higher Education in Indonesia should be reformulated with regard to the knowledge competence as well as keep caring to the skill training to enter the marketplace in the professional field.

For those purposes, IQF is regulating that level 6 and 7 in the structure of leveling of Indonesian education programs, as the level of bachelor and specialist, and all students from such levels are promoted to be knowledgeable workforce, skillful, and they have a specific expertise. These regulations are stipulated in the guideline book for reformulating learning achievement from higher education programs. Based on such regulation, that educational programs from bachelor degree should achieve some following criteria:

1. Attitude is a right and cultured behavior as a result of internalization and actualization values and norms reflected in spiritual and social life through the process of learning, student work experience, research, and / or community service related to the learning programs.

2. Knowledge are the mastery of concepts, theories, methods, and / or philosophy of a particular field of science systematically, and are obtained through learning process, student work experience, research and / or community service related to learning programs. What is meant by student work experience is an experience in activities in a particular field at a certain period of time in the form of job training, practical work, field work practices or other similar forms of activities.

3. Skills are the ability to perform performance using concepts, theories, methods, materials, and / or instruments, and are obtained by learning process, student work experience, research and / or community service related to learning. The skill element is divided into two general skills and special skills which are interpreted as follows (Direktorat Pembelajaran dan Kemahasiswaan Direktorat Jenderal Pendidikan Tinggi, 2014):
   a. General skills are general work skills that must be possessed by each graduate in order to ensure the equality of graduates' ability in accordance with the program level and type of higher education; and
   b. Special skills are special work skills that each graduate must have in accordance with scientific field of the study program.

The main mission of IQF is adopting learning programs for every department to the labor market, without differentiating pure and applied science. All those study programs should give a great attention for all students to get job training in accordance with the labor market, and they get professional jobs soon after graduation. Such training can be organized by the campus it self and certified by credential office, or appreciating professional works experience that has been done by the students during their study, and also is certified by the same agency. So, the model of curriculum in pure science, optionally cane mixed between knowledge and skill training, both in line with the discipline of department or beyond it.

This is the uniqueness of Islamic Higher Education today, where it should adopt IQF that gives a great attention to the labor market, particularly for educational program from 6 and 7 level, whereas level 8 and 9 are dedicated to produce scientific people for developing and discovering new knowledge, new theories and new technologies. So, such level magister and doctor are provided to educate scientist candidates, with a specific product new discovery in all disciplines and branches of science, knowledge and even in humanity. Indonesia, actually needs a lot of scientists to discover new theories, and to develop new applied technology that can escalate the economical growth of Indonesia, by developing high-tech economy, mechanization of agriculture.

This new innovation of redesigning curriculum, learning programs, some training and skill certification should be informed to the wide community through digital publication and web based information. So, all Islamic Higher Educations, should have internet connection, and data center with several servers, therefore everything can be disseminated to the society by internet services, and will be easily reaching the targeted group of people. By such modernizing, Islamic Higher Education will be attended by a big group of people, because it is trusted, and expected.

3 DISCUSSION

3.1 Digital Learning Program

Core business of Islamic higher education are mainly Islamic religious courses as humanities, and are mostly delivered directly by teachers to the students, or are transformed by professors to the students. Anyhow, today is a modern day, and everything is organized by using internet, because the challenge of the future is requesting all the Indonesia people to know much about the development of human civilization, and also to have high capacity in using information technology as a tool of learning. Modernizing Islamic higher education is perfecting learning facilities, and learning process are completed by digital data center, and also supported by the system of learning through Information and Communication Technology (ICT). Digitalizing learning programs at least consists of three program, knowledge management, e-learning and e-assessment.

3.2 Knowledge Management

Knowledge management is one kind of management that relates to the process of managing knowledge consists of generating, transferring and using of knowledge. So, for web base management of knowledge, Islamic higher education should provide some important aspen of knowledge management as follow (Giebel, 2013):

1. Create knowledge repositories
2. Improve knowledge access
3. Enhance knowledge environment and
4. Manage knowledge as an asset

Knowledge repositories actually is a place where knowledge is stored and can be extracted on demand, whether as e-book, e-journal, academic paper, thesis or dissertation. All those publication will be easily accessed by all students, in anytime and any places, and in anywhere. So, learning process will be happening without limitation of class rooms, learning schedules, existence of teachers and lecturers. Learning isn't always needs teachers and lecturers as resource of knowledge. A lot of teacher's positions is now substituted by repositories or web base data center that is containing research result and so forth. Repositories as a big collection of knowledge and science from any disciplines, for facilitating all students to extend learning activities through e-learning and also virtual learning. Beside repositories, that containing storage of learning module and learning assessment, digital infrastructure is also facilitating digital media for learning to access learning module and assessment (Meenakumari & Krishnaveni, 2010).

Some of the aspects that have enabled transformation of Islamic higher education landscape and enhancing knowledge management include the following:

1. World Wide Web (WWW), The World Wide Web has revolutionized information dissemination and sharing. Internet technologies have enabled learners and instructors to communicate with each other effectively.

2. Collaboration tools the use of collaboration tools such as email, e-groups, instant messenger, have enhanced learning effectiveness.

3. Digital content Faculty members create instructional content in digital form, so that it could be easily managed and reused. Further, access to digital resources such as digital libraries, and digital assets of information has made management learning more effective.

4. Online learning, (e-learning) helps to complement the traditional mode of education and also as an exclusive mode of learning. This has been made possible by technologies of the digital era. The establishment of 'online universities' that leverage the advanced technologies of the digital era is one of hallmarks that has revolutionized management education (Meenakumari & Krishnaveni, 2010).

3.3 E-Learning

Emerging digital technology is enabling Islamic higher education in Indonesia to develop learning model, from face to face learning process that needs classroom, schedule, and availability of teachers or lecturers, to the unlimited learning activities, learning activities can be done by students in anytime and anywhere. The students can enhance their capacity in academic and skill by their initiatives, creativity and innovation. Some e-learnings that can be implemented are as follows (Delich, et.al., 20018);

1. Online meeting; this is unmeasurable classroom, because the students are being anywhere, maybe in their office, home, or in the park, as long as they are connected to the programs, they will be participating in the learning process. Nowadays, such online classes can be facilitated by the use of web conference, virtual classroom tools, such as WebEx, Skype, and also Microsoft live meeting.

2. Communities of practice; much of social computing revolves around the formation of communities of practice, which are groups with a common interest. With technologies that ease the sharing of experiences, information, and resources, whether across the hall or around the world. They can contribute greatly to the dissemination of knowledge and skills within an organization, as when, for example, the group serves as mentor to a new member.

3. Personal broadcasting tools include: blogs (web logs), moblogs (mobile blogs), vlogs (video blogs), podcasts, vodcasts (video podcasts). Instructors can use these technologies to bring diverse elements into a course to assist in meeting a variety of learning styles. These technologies can also be used for updating students on current activities and projects.

Islamic higher education, universities, institutes or colleges are expected to develop the capacity in academic services toward students by facilitating them digital repositories, to store some modules, papers, or other publication related to the learning program. Then, digitalizing academic services is also can be extended to the learning process by developing virtual classes, web conference, Skype, and other system that is relevance for flexibility in learning process, maximum in learning result.

4 CONCLUSION

Modernizing academic services among Islamic higher education institutions in Indonesia is veryurgent, whether in the context of promoting the competitiveness of alumni, or to develop academic services for students to increase the competence of them, both in academic field as scientist and in the skill of work to enter labor market. Digitalizing academic services at least covering two field of work, facilitating digital data of learning material, modules, papers or even e-book. And then, virtual classroom, online meeting conducted by teachers or lecturers, sharing learning material each other, and sharing information to promote knowledge capacity, skill of work, and also to share working information.

REFERENCES

Aylwin, Mariana, and Daniel Farcas (2017), New Technologies in Higher Education: The Chilean Experience, in the, Z. Varoglu, New Technologies in HigherEducation: Experiences from Chile and China,United Nations Educational, Scientific and Cultural Organization, p. 2.

Bill of Higher Education Number 12 Year 2012, chapter 30 article number 1 and 2.

Delich, Patricia, Kevin Kelly, and Don McIntosh (2008), Emerging Technologies in E-learning, at, Education for a Digital World, Commonwealth of Learning, p. 7.

Direktorat Jendral Pendidikan Islam Sub Direktorat Kelembagaan Diktis (2017), Sistem Informasi dan Layanan Kelembagaan, p1.

Direktorat Pembelajaran dan Kemahasiswaan Directoraat Jenderal Pendidikan Tinggi (2014) Panduan Penyusunan Capaian Pembelajaran Lulusan Program Studi, Kementrian Pendidikan dan Kebudayaan,

Dräger, Jorg, Julius-David Friedrich, Lisa Mordhorst, Ulrich Müller, Ronny Röwert (2017), Higher Education Institutions Need Strategies for the digital age, Austrian Council for Research and Technology Development.

Marek Giebel, Marek, (2013), Digital Divide, Knowledge and Innovations,Journal of Information, Information Technology, and Organizations Volume 8, p.6

Minhaji, Akhmad (2007), Masa Depan Perguruan Tingga Islam di Indonesia (Perspektif Sejarah Sosial), Tadris Vol 2 Nomor 2.

Meenakumari, J., R. Krishnaveni, Managing Management education institutions with Digital Infrastructure - A Current Scenario (2010), International Journal of Innovation, Management and Technology, Vol. 1, No. 2, ISSN: 2010-0248 p. 193

Rosyada, Dede, Paradigma Pendidikan Demokratis (2013), Sebuah Model Pelibatan Masyarakat dalam Penyelenggaraan Pendidikan, Prenada Media, Jakarta, p. 23