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STRENGTHENING THE EXISTENCE OF SHARIAH ECONOMICS GRADUATES IN THE ERA OF INDUSTRY 4.0

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Abstract

This type of research is library research, which is a series of studies related to library data collection methods, or research whose research objects are explored through various library information. The industrial revolution 4.0 marks the fourth phase in the history of industrial development that began in the 18th century. The emergence of this industrial revolution has caused significant changes in the way humans, machines, and technology adapt in various job sectors. Graduates of Islamic economics programs now face challenges, demands, and needs that have never arisen before. Therefore, it is important to carry out updates and innovations in systems, management, curriculum, human resource capabilities, facilities, culture, work attitudes, and other aspects. If this is not done, there is a risk of being left behind. Thus, real efforts are needed so that Islamic economics graduates can compete well in this era of disruption. Islamic economics graduates need to acquire specific Skill Standards, including the ability to employ logical, analytical, systematic, and creative thinking while developing or applying scientific and technological advancements.

Keywords: Existence, Human Resources, Sharia Economy, Industry 4.0.

Abstrak

Jenis penelitian ini adalah penelitian kepustakaan, yaitu serangkaian penelitian yang berkaitan dengan metode pengumpulan data kepustakaan, atau penelitian yang objek penelitiannya dieksplorasi melalui berbagai informasi kepustakaan.
Revolusi industri 4.0 menandai fase keempat dalam sejarah perkembangan industri yang dimulai sejak abad ke-18. Munculnya revolusi industri ini menyebabkan perubahan signifikan pada cara manusia, mesin, dan teknologi beradaptasi dalam berbagai sektor pekerjaan. Lulusan dari program ekonomi syariah kini menghadapi tantangan, tuntutan, dan kebutuhan yang sebelumnya tidak pernah muncul. Oleh karena itu, penting untuk melakukan pembaruan dan inovasi pada sistem, manajemen, kurikulum, kemampuan sumber daya manusia, fasilitas, budaya, sikap kerja, dan aspek lainnya. Jika hal ini tidak dilakukan, akan ada risiko ketertinggalan. Dengan demikian, sangat diperlukan upaya nyata agar lulusan ekonomi syariah dapat bersaing dengan baik di era disrupsi ini. ulusan ekonomi Islam perlu memperoleh Standar Keterampilan khusus, termasuk kemampuan untuk menggunakan pemikiran logis, analitis, sistematis, dan kreatif sambil mengembangkan atau menerapkan kemajuan ilmiah dan teknologi.

Kata Kunci: Eksistensi, Sumber Daya Manusia, Ekonomi Syariah, Industri 4.0.

INTRODUCTION

Sharia financial matters could be a science that considers human financial behavior, the behavior of which is directed by Islamic devout rules and based on monotheism as summarized within the columns of confidence and the columns of Islam.

The Islamic Financial System is part of a broader concept of sharia economics. The Islamic financial system is not just a commercial transaction, but must have reached financial institutions to be able to keep up with the demands of the times. The form of a financial system or financial institution that is in accordance with Islamic principles is free from elements of usury, maysir, and gharar.

According to information from the Central Statistics Agency (BPS), Indonesia has a predominantly Muslim population with 209.1 million individuals identifying as Muslims, which constitutes 87.2 percent of the entire population. This significant Muslim demographic could serve as a catalyst for advancing Islamic economics and finance within the country. Thus, Indonesia holds considerable promise in fostering Islamic economic and financial growth, enabling it to positively impact the nation's economy.

The development of Islamic Economics in Indonesia is marked by the development of Islamic banks and financial institutions. Government policy on Islamic banking in Indonesia is contained in Banking Law No. 7 of 1992 concerning banking and Law No. 10 of 1998 concerning amendments to Law No. 7 of 1992(Suwiknyo, 2010).

In a survey conducted by Islamic Finance Development Indicators (IFDI) in 2019, Indonesia was in fourth position, jumping from 10th position last year (Puspaningtyas; Republika.co.id, 2019). IFDI is a ranking indicator created by the Islamic Corporation for the Development of Private Sector (ICD) of the Islamic Development Bank (IDB). Its purpose is to measure the development of the Islamic finance industry using several criteria that are considered important for the progress of the industry, including quantitative development, governance, Corporate Social Responsibility (CSR), knowledge, and awareness.

With the increasing development of the Islamic financial industry in Indonesia, it must also be balanced with the availability of reliable and quality human resources, this can be obtained through higher education institutions.

In order to provide the human resources needed by the Islamic financial industry, the Islamic Economics Study Program (Prodi) is here to contribute to the development of Islamic economics in Indonesia. Prospective Islamic Economics graduates will be equipped with theoretical and practical knowledge.

The fourth wave of the industrial revolution, known as industrial revolution 4.0, is the contemporary phase in the historical timeline of this transformative era that started in the 1700s. Industrial revolution 1.0 kicked off in the early 1800s and was highlighted by the invention of the steam engine, which facilitated the development of steam-powered vessels and machinery for factories, among other advancements. The evolution continued into the early 1900s, characterized by the introduction of electricity and the creation of assembly lines that enhanced product manufacturing, and then progressed into the year 2000, marked by breakthroughs in information technology, the rise of personal computers, and the automation of production processes.

The industrial era 4.0 allows the creation of high technology. The technology has grown 10-fold in the last five years. It is estimated that by 2020, 5.1 million jobs will be lost due to the pace of the disruption era (Schwab and Samans, 2016). However, there is a positive side to the digitalization era that has the potential to increase the new workforce by 2.1 million by 2025, which means there are various choices of professions and jobs.

The emergence of Industrial Revolution 4.0 introduces transformations in how work aligns with humans, technology, machines, and methodologies across numerous vocational sectors. Jobs within the Islamic finance sector are gradually set to be overtaken by artificial intelligence through the implementation of various software that can assume human responsibilities, particularly in performing repetitive tasks that do not necessitate advanced technical evaluation.

So, for graduates of Islamic economics in the digital era, they should not underestimate the impact of technology, and need to master non-financial data such as data analysis, information technology development, and leadership skills.Based on this, this article will explain further how to strengthen the existence of Islamic economics graduates in the industrial era 4.0.

RESEARCH METHOD

This type of research is library research, which is a series of studies related to library data collection methods, or research whose research objects are explored through various library information (books, encyclopedias, scientific journals, newspapers, magazines, and documents) (Syaodih, 2009). The focus of library research is to find various theories, laws, propositions, principles, or ideas used to analyze and solve formulated research questions. The nature of this research is descriptive, which is a regular description of the data that has been obtained, then given an understanding and explanation so that it can be understood well by the reader.

DISCUSSION

Islamic Economics

Sharia economics is the knowledge and application of sharia law to prevent injustice in the use and disposal of material resources with the aim of providing human satisfaction and practicing it as an obligation to Allah and society.(Muhammad, 2008).

While Islamic economics is: The study of how individuals or communities choose and use existing resources, now or those left by past generations, according to the rules or sharia (the Qur'an, hadith, or laws below) which are used to meet physical and spiritual needs without exploitation so that it can realize falah (welfare) for individuals and communities. it can be concluded that the principle of Islamic economics is the application of the principles of efficiency and benefit while maintaining the sustainability of the natural environment. The motive of Islamic economics is to seek fortune in the world and the hereafter by humans as Allah's caliphs through worship.

In contrast to conventional economics, sharia economics bases every economic activity on the provisions and sources of Islamic teachings. The values contained in these teaching sources are taken into consideration in every economic activity. These sources are the Qur'an, Hadith, Ijma', Qiyas, 'Urf, Istihsan, and Maslahah Murlah.

The goal of Islamic economics according to Umar Chapra is not to restrict individual freedom excessively, create macroeconomic and ecological balance, or weaken family and social solidarity, as well as moral bonds that exist in society.

The world of work is a place where someone pours out the knowledge they have gained during their studies. The world of work is the ultimate goal that every graduate

wants to achieve (Antonio, 2001). Therefore, along with the development of the sharia-based economy in Indonesia, it is in line with the many Sharia Economics Study Programs in various universities in Indonesia in order to prepare the Competence of Sharia Economics Graduates so that they are useful in the world of work later, both in the sharia banking industry and other sharia financial institutions. The following is data on the development of study programs related to sharia economics at PTKI (Islamic Religious Colleges) in Indonesia

Figure 1.1
Islamic Economics Study Program at PTKI (Islamic Religious College) in Indonesia

Nama Prodi	S1	S2	S3	Jumlah
Ekonomi Syariah	299	61	2	362
Perbankan Syariah	221	2	1	224
Asuransi Syariah	5	0	0	5
Akuntansi Syariah	17	0	0	17
Akuntansi Lembaga Keuangan Syariah	1	0	0	1
Manajemen Bisnis Syariah	17	0	0	17
Manajemen Keuangan Syariah	11	1	0	12
Manajemen Keuangan Mikro Syariah	--	0	0	--
Hukum Ekonomi Syariah (Muamalah)	148	18	0	166
	712	82	3	797

Sumber: Forlap PD DIKTI, 23 April 2018, sesuai PMA NO. 38 Tahun 2017

Sharia economics graduates are expected to have competency in sharia economic knowledge, analytical skills using quantitative and qualitative data and information for economic and business decision making, as well as good attitudes and characters for critical, creative, innovative, communicative and patriotic thinking so that they are able to have a career in the field of sharia economics, finance and banking at the local, national and regional levels.

Industrial Revolution 4.0

The fourth phase of the Industrial Revolution marks a time of adopting advanced technologies, beginning with the rise of fiber technology and interconnected network systems that play a role in all economic processes, ranging from manufacturing to consumption.

The industrial revolution is currently at its peak with the birth of digital technology which has had a massive impact on human life throughout the world. The industrial revolution 4.0 is marked by the emergence of cloud computing, big data,

genetic engineering, the development of neuro technology that allows humans to optimize brain function (World Economic Forum, 2016). While Deloitte (Deloitte insight, December 2017) describes industry 4.0 as the integration of digital information from many sources and locations starting from manual activities in business to be easier and more efficient.

The industrial era 4.0 allows the creation of high technology. The technology has grown 10-fold in the last five years. It is estimated that by 2020, 5.1 million jobs will be lost due to the pace of the disruption era (Schwab and Samans, 2016). However, there is a positive side to the digitalization era that has the potential to increase the new workforce by 2.1 million by 2025, which means there are various choices of professions and jobs.

The characteristics of the industrial revolution 4.0 are: 1) the existence of disruptive technology, the definition of disruptive technology is a technological innovation, product or service that disrupts the dominant existing technology or product. Disrupted in the sense that its existence can be threatened due to the existence of new technology, products or services. For example, computers are a disruptive technology from typewriters. 2) changes in company size, in this new era, the size of the company does not need to be large, but the company must be agile in utilizing technology and information.

The industrial revolution 4.0 encompasses four core principles that organizations can utilize to recognize and implement various 4.0 scenarios, which are as follows: Firstly, Interoperability (compatibility); this refers to the capacity of machines, devices, sensors, and individuals to connect and exchange information with each other. Secondly, Information Transparency; this involves the capability of information systems to generate virtual replicas of the physical environment by enhancing digital factory models using sensor data. Thirdly, Technical Assistance; here, assistance systems support individuals in gathering data and creating visual representations to facilitate informed decision-making. Fourthly, there is the capability of cyber-physical systems to assist individuals in executing tasks that may be challenging, unpleasant, or hazardous for humans. Lastly, Independent Decisions; this principle highlights the ability of cyber-physical systems to autonomously make decisions and perform their designated tasks.

The primary objective of the fourth industrial revolution is outlined below: 1) reduce time to market, characterized by a quicker cycle for innovation, an increase in product complexity, and the handling of larger data sets; 2) enhance flexibility, involving more customized mass production, unpredictable markets, and elevated productivity levels; 3) improve inefficiency, focusing on energy and resource efficiency as a vital element of competition.

The changes that occurred in the industrial era 4.0 are the digital transformation in many fields (manufacturing, agriculture, services, education, and others). Examples of manufacturing digitalization apply digital technologies such as intelligent robots, drones, sensor technology, artificial intelligence, nanotechnology, and 3D printing.

Meanwhile, the digitalization of the service sector applies interest of things, big data, cloud, digital currency, and social analytics. The era of digital transformation has resulted in changes in the structure of the labor market, will threaten low-skilled workers and the emergence of new types of jobs while eliminating some types of existing jobs.

As a result of the transformation of the labor market, college graduates are needed to be ready to work in adjusting existing jobs to new job positions. The implications of the digital era threaten the social level of society (social organization, individual, decreasing solidarity, etc.). College students and graduates have knowledge competencies and a mix of digital-data-social skills.

Strengthening the Existence of Islamic Economics Graduates in the Industrial Era 4.0.

Four steps in facing the industrial revolution 4.0, namely as follows:

1. Understanding that the industrial revolution has created fresh possibilities. These new possibilities have led to the emergence of companies that were previously non-existent, such as Germany, which leads with 80% of its enterprises poised to adopt industrial revolution 4.0, and China, which acknowledges the necessity of knowledge growth and aims to allocate 60% of its investments toward this area. Beyond just these two nations, numerous countries are already beginning to share information that will ultimately evolve to fully engage in the 4.0 revolution.

2. Education. It is essential for regulators or governments, along with education professionals, to develop appropriate curricula that align with the advancements in digital connectivity. This includes training in coding, managing information across various programs and platforms, or establishing real-time accounting practices intended for all sectors and organizational structures, including stakeholders.
3. Career Advancement. Enhancing the effectiveness of the sharia economics field alongside initiatives that promote its growth through virtual presentation activities or in-person conversations and assessing their influence on the skills of the sharia economics sector going forward.
4. Implementation of high standards (Reaching Out). As a professional in the field of Islamic economics, it is required to have maximum control over the data produced, physical data or information that is usually obtained under the responsibility of management.

The four stages of transformation in the current industrial revolution 4.0 era described above should commence at the outset of the educational journey in universities or colleges. Here, both the curriculum and teaching methods must be aligned with the realities of today's and tomorrow's business landscape. Therefore, higher education institutions must identify and implement learning strategies that enhance the crucial element of human literacy, which centers on fostering students' cognitive abilities to engage in critical and systemic thinking. This is essential because human literacy is most effective when it encompasses aspects of "humanity," communication, and design. Consequently, the focus of education should be directed towards the following components:

1. General Competencies
    a. The ability to employ logical, critical, systematic, and innovative thought processes within the context of scientific and technological advancement or application.
    b. Proficiency in understanding techniques, principles, and procedural knowledge related to the utilization of information technology.
2. Specialized Competencies

Capability to autonomously devise business processes within an information system that facilitates the dissemination of information through information technology, aiding managerial oversight and decision-making via a system development life cycle framework.

3. Leadership and Collaboration Skills.
4. Cultural adaptability and maturity, enabling students from diverse backgrounds to thrive in various settings, both locally and internationally.
5. Entrepreneurship includes "social entrepreneurship" which means entrepreneurship that is able to contribute to social change in a sustainable and targeted manner. This basic point is mandatory for every student.

Aoun (2017) stated that to achieve effective learning aspects and in accordance with the expected goals, a thematic study is needed that combines the campus environment and the real world of work (project-based learning). This thematic study can provide students with a real picture of the current conditions of the world of work and all the challenges faced. Northeastern (2014) also indicated that holding practical work or internship activities in companies is one of the references in effective learning.The field of Islamic economics studies must be able to produce students who are independently able to design business processes in an information system to support the provision of information based on information technology to support management control and decision making with a system development life cycle approach.

So it is expected that the achievements of Islamic economics graduates in the industrial era 4.0 are as follows: 1) Students are able to understand various theories and concepts of Islamic economics so that they are able to understand the Islamic economic system in theoretical and practical levels and are able to distinguish it from the general economic system; 2) Students have adequate background knowledge to study related fields, namely Islamic economics, Islamic business, Islamic finance and banking and other related fields; 3) Students are able to understand the development of Islamic economic and business practices and the Islamic economic ecosystem in Indonesia and compare them with other countries; 4) Students have intuition, reasoning and analysis using relevant statistical techniques to understand problems related to Islamic economics, finance and banking that occur locally, nationally and regionally so that they are able to provide various alternative solutions to current problems for decision makers

and policy makers in order to realize the Islamic/Islamic economic ecosystem in Indonesia; 5) Students are able to assess various Islamic-based economic and business models; 6) Students have good soft skills, namely critical, creative, innovative, communicative and love for their country so that they are able to have a good career in their field of work or as entrepreneurs who successfully create jobs.

CLOSING

The Fourth Industrial Revolution marks a time of adopting cutting-edge technology, beginning with the rise of fiber technology and interconnected networks that operate across all economic operations, spanning from production to consumption. Islamic economics graduates need to acquire specific Skill Standards, including the ability to employ logical, analytical, systematic, and creative thinking while developing or applying scientific and technological advancements. Acquiring knowledge of methods, key concepts, and procedural expertise related to information technology, along with leadership capabilities, is also crucial for enhancing the presence of graduates in the field of Islamic economics.

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