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Moral Values and the Fourth Industrial Revolution

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Abstract—This article attempts to discuss the role of moral values in the era of the fourth industrial revolution. The industrial revolution will decrease man's involvement in workplaces. The production number increased significantly, but job opening dropped that might cause fewer people to work. As we know, those who live in industrialized countries are very busy and disciplined particularly in running their activities. They have never thought about religious aspects and moral values. They only think about how much can be earned from their job and how to rise-up the production. This is the warmest issues which spread all over the world nowadays, and nobody can escape from that. On the one hand, industry 4.0 will need a skilled man to operate internet or machine to create efficiency and more production, and such circumstances will change people's paradigm. On the other hand, religious teachings should not be underrated because it is a necessary way to strengthen and defend moral values among people. These are two different things that are occurring at the same time, and therefore research which is related to the issues should be done. This study was done qualitatively, and data were collected through a single method---interview. The aims of the study are to find out whether moral values can save people from the influence of the fourth industrial revolution, whether people are pleased only by fulfilling their materialistic needs, and whether the national education curriculum related to moral values need to be changed in accordance with this modern era (industry 4.0).

Keywords—moral values; industry 4.0; national curriculum

I. Introduction

Moral values are a very important thing in Islamic teachings. Prophet Muhammad (peace be upon him) was sent down to this world to spread moral values among the ignorant people especially in the early day of Islam in the Arab peninsula. Anyway, whatever we do and whenever we do it, it seems that moral values cannot be ignored and underrated, because moral (*akhlaq*) is the most important thing in Muslim's life and must be protected. Sometimes, it cannot be denied that living in this modern era; some people have ignored moral values, moreover for those living in the fourth industrial revolution (Industry 4.0).

The fourth industrial revolution takes the automation of manufacturing processes to a new level by introducing customized and flexible mass production technologies. This means that machines will operate independently, or cooperate with humans in creating a customer-oriented production field that constantly works on maintaining itself. That machines rather becomes an independent entity that is able to collect data, analyse it, and advise upon it (Martin, 2017).

This matter has been seriously discussed in Indonesia recently. As we know, in the Industry 4.0, more works or jobs which should be done by man have been taken over by machine, robot, and the internet.

The Fourth Industrial Revolution signals an unprecedented change in the way people live, work and relate to one another, brought about by further technological developments such as Artificial Intelligence (AI), the Internet of Things, Biotechnology and Quantum Computing (Schwab, 2016).

Therefore, more people have become unemployment nowadays. We also recognize and confess that the machine can work more effective than manpower themselves.

On the other hand, the more unemployment will produce more problem among the community, and of course, their way of thinking and paradigm also change either positively or negatively. Also, people's attitude will probably change in facing various kinds of obstacle and demand or needs in their daily life. Those who are living in industrial countries are automatically experiencing and thinking materialistically in their daily activities without paying attention to religious tenet particularly in

term of moral values. Probably, they work day by night for the sake of money, and of course, they become material-oriented people. Therefore, the government should think and do something on how to design a national education curriculum which produces the best conduct graduate who does not think materialistically.

We believe that the state managers/ executors do not also agree to produce a lot of unemployment, and hopefully, the coming-up of industries and modern factories should handle the problems of unemployment. Religiously, the more people who can fulfill their needs, the more pious and obedience to Allah's command they are. This means they are grateful people who understand their role in this world as a slave and obey their Creator by doing whatever He commands and avoid doing whatever He forbids. Truly speaking, this kind of people is wanted based on Islamic teachings. On the other hand, the more sophisticated technology and science are the more industrial technology coming up among the people, so that they can live harmoniously and happily and closer to God as well. Such things should be mentioned in the national education curriculum, and the government plays a more important role in designing the national curriculum. It is important to educate young generations to have awareness particularly in using media so that their *akhlaq* and way of thinking would not damage (Muhammad AR, 2010). The national curriculum aims to produce professional, moral, and skillful persons.

The industrial revolution 4.0 will probably make human being forget about the real moral values, for example, the life of Japanese, Koreans, Taiwanese who are very busy with their works in the offices and almost no time to think and implement religious moral values. Because of human beings far from religious instruction, when they are stressed or confused, experience a silly problem, finally, they solve their problems by committing suicide — such things against with Islamic moral values and human rights itself---against Allah's Will. He has given human beings' rights to live, to think and to see the creations of Allah but very view people fail to implement it. Sometimes they shorten or end their life by jumping from the highest building to seek the best solution. This is the wrongest way taken by those who are living in this millennium era, and finally, they die tragically. Probably this problem occurs for those who have not possessed moral values based on religious instruction, they feel disappointed to achieve harmonious and happy life in this world, and finally, the situation drives them to despair. In the Islamic point of view, we are forbidden to commit suicide and to be in despair.

In general, moral refers to a behavioral system based on good principles, good conduct, and should be implemented in our daily life (Aroff and Hoon, 1994). Moral values are regulation either written or not but always respected by the community who are inhabiting the certain area. Usually, those who brake the regulation (law), they will be punished or fined based on the law that recognized in society. Anyway, both of the law applied in developed countries, and underdeveloped ones are always ignored by the community especially in the fourth industrial revolution era. Everybody can use or utilize internet (information technology) everywhere and anytime and impossible to avoid using them. Also, there is no inhibition and specific regulation for elementary, junior and senior high school students to use electronic devices and electronic media in Indonesia. Therefore, the fastest growing information technology like the internet and industrial revolution cannot be denied. The government should think and design a suitable educational curriculum to avoid being a clash between technology and religious claims. Islam has no contradiction with development and progress as long as not to ignore and underrate religious values.

If moral values are ignored or neglected, human beings will encounter an internal and external crisis in their daily life, their family system is in a muddle, community system splits and crashes, and the community themselves are in chaos and going astray for losing their guidance (Abdurrahman, 2016). A good Muslim is a man who has a closer relationship with God, implement all commands of God and fight against the evil. By doing so, we are all forgiven from any sin, we are going to be rightful means or livelihood, and we are going to be placed in His paradise (Al-Hasyimi, 2009). Suicide frequently happens in Japan, Taiwan, China, and other countries. This is the best solution for those who commit suicide, and they have no other choices to do because they are panic, lose control, despair, disappointed and no guidance as well. Anyway, in this case, the religious teachings or religious instruction can guide people and protect them from doing dangerous action.

> *... Islamic morals dealt with the relationship between man and God, man and his fellow men, man and the other elements and creatures of the universe, man and his innermost self. The Muslim has to guard his external behavior and his manifest deeds, his words and his thoughts, his feelings and intentions. In a general sense, his role is to champion what is right and fight what is wrong, seek what is true and abandon what is false, cherish what is beautiful and wholesome and avoid what is indecent. Truth and virtue are his goals. Humbleness and simplicity, courtesy and compassion, are his second nature (Hammudah 'Abd Al-'Ati, 1998). ....*

The moral is a value, but are all values considered moral? To answer this question, we have to understand what the meaning of value is? There are characteristics of value. Some can be seen from someone's speaking, talking and doing and so do the groups of people. If a man who desires to prove the responsibility's value, he/ she can display it through his/ her activities and speech. He/she also keeps maintaining responsibilities' values and criticizes others who do not assume of responsibility (Aroff, 1999). In our daily life, we usually find unresponsible persons in doing their task or job. It means they do not understand what responsibility is, when responsibility is implemented, and why we should be a responsible person in running our duties.

Moral values, responsibility, attitude, and religious teachings cannot be separated among them. These should be implemented in human's daily life to avoid going astray both in this world and hereafter. Moreover, we live in this modern and

sophisticated era which ignore and decrease manpower in every aspect of life. We should get involved in this fourth industrial revolution without sacrificing our sacred moral values coming from religious tenet.

Previous industrial revolutions liberated humankind from animal power, made mass production possible and brought digital capabilities to billions of people. But the Industrial Revolution 4.0 is different from the previous one. It is characterized by a range of new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and even challenging ideas about what it means to be human (Schwab, Klaus, 2018).

Since the last decade, several technologies have been abruptly influencing our life. Among the notable major changes in human society is the way humans interact with each other, which now involves the social media heavily where this is the previously unknown to the masses (Rahman et al., 2017). According to Teich et all, the term 'industrial revolution' has been coined as early as in 1799 by Louis-Guillaume Otto, which mentioned that France had joined the race to industrialize. After several decades and types of industrial revolutions, it is now entering the fourth phase, which is called the Fourth Industrial Revolution (FIR) (Teich and Porter, 2017). One of the major features of the FIR is Autonomous Vehicle. It allows the vehicle to navigate itself without the interference of human driver. Major companies are racing in developing autonomous vehicles, and it is expected to be navigating on the road by the general audience by the year 2025 (Hamid et al., 2016). Every innovation and new coming technology, of course, will experience some changes among the community whether their attitude, way of life, or way of thinking and so forth.

The aims of the study are :
1) To find out whether moral values can protect people from the influence of the fourth industrial revolution,
2) To find out whether people are really happy only by fulfilling their materialistic needs, and
3) To find out whether the national education curriculum related to moral values need to be changed following this modern era (industry 4.0).

II. METHOD

This study is done qualitatively. A qualitative method was implemented to explore more in-depth rich data for the study (Creswell, 2012). The researcher uses a single research method to collect data, that is an interview. The interview is to find information from someone who may be able to help us (Gorman and Clayton, 1998). The data collection was done with purposive sampling technique. There were thirteen informants who had been interviewed with all open-ended questions. The informants in this study were experts or knowledgeable persons who have a background and knowledge in industry, economy, technology, and religious tenet related to industry 4.0 as well.

Data analysis is the process of bringing order, structure, and meaning to the mass of collected data (Gorman and Clayton, 1998). After collecting the data, the researcher employed constant comparative analysis as proposed by Sharan B. Merriam (Merriam, 1998).

III. FINDING AND DISCUSSION

A. Moral Values

The first research question is to find out whether moral values can protect people from the influence of the fourth industrial revolution. This industrial revolution, of course, must come and cannot be refused. Industry 4.0 will use much machine and internet and less manpower. On the one hand, cost product can be minimized and cheaper, but on the other hand, unemployment will be occurring and spread everywhere. Many problems will be coming up whether small or bigger, and this will create chaos and social affairs among the community. It needs a fair solution both from the government and community themselves.

Moral values can protect people from the influence of the global economy and industry 4.0. Besides, moral *(akhlaq)* is safety. It saves people from doing bad things and bad attitude (Dr. M, and Dr. AM, 2018). Likewise, moral will determine quality to get in touch with other people, accurateness in providing data, machine, and accurateness in utilizing time (Dr. MD, 2018). It can be changed because God Almighty has sent His Apostle to restore bad attitude dan save mankind from any revolution (Dr. AAL, 2018). The influence of the fourth industrial revolution can be anticipated with moral values and character development which were implanted earlier since children studying at kindergarten (Hammudah, 1998). Industry 4.0 does not disturb people because it depends on how do we utilize it. If we act positively, its result is better, but unfortunately, if we manage wrongly, of course, its result becomes worse (DR. er, 2018). Therefore, we cannot deny that even though we live in this modern era, the moral values are considered very important among our community, and this should be preserved and supported at any time. As you have to know that Islam is not against development or progress and this principle is seldom found in other beliefs. We do not blame technology, development, and industrial revolution 4.0 itself, the most important one is how to utilize the development and how to make it beneficial for human beings and how to make them in harmony and wealthy.

We are going to be safe anytime and anywhere suppose we can hold firmly moral values inherited by our Prophet Muhammad (peace be upon him), including in this fourth industrial revolution. Moral will guide us to the best way and safety; this will be chaos for those who ignore the moral values; Moral plays the most important role in our daily life, it can save mankind from ignorant and other negatives actions. Moral values are ready to be a filter for mankind to run their life in this world (IM, 2018). The involvement of religion or religious scholars cannot be denied in solving such problems. In addition to moral (akhlaq) we better refer to the prophetic mission, Muhammad (peace be upon him) to this world in one of his Hadiths: "I have only been sent to this world to perfect good morality."

B. Happiness and Material Needs

The second research question is to find out whether people can be happy by fulfilling material needs or not. In reality, People can be happy if their material needs are fulfilled. It is true that fulfilling material needs and open management in our family will achieve happiness (Dr. SR, Dr. FSH, Prof. Dr. HA and Tgk. MA, 2018). On the other hand, one expert said that material needs are not exclusively guaranteed to be happy and this is an evil lust for materialists. In Islamic teachings, we are not suggested much property, but the most important one is blessed property (Dr. MD, 2018). Therefore, we have to remember that in Islamic teachings we are allowed to seek much property and wealth, but we do not have to forget how to be responsible for the things we have owned as well. Then, we have to be responsible for distributing the properties--- for examples, to whom we give or where to spend whether to the poor, the needy or the rich.

Properties and wealthiness do not guarantee somebody to have a happy life. There have been many rich people who are not living in harmony. Material needs are not the only way to achieve happiness, but we have to seek for the bounty of Allah and every job and work we do, we have to do it exclusively for the sake of God. People also want to fulfill spiritual needs rather than material ones. We have to follow the teachings of the prophet how to achieve happiness both in this world and hereafter (Dr. AAL, 2018). We must understand that we live in this world and then hereafater, we have to fulfill our material and spiritual needs. Anyway, we are not suggested to collect as much property as possible (Dr. S.AG, Dr. SR, 2018). It can be said that not all the rich can live in harmony and happiness for their heart and mind are further from the Almighty God.

C. National Education Curriculum

The third research question is whether the national education curriculum needs to be changed to be suitable for the fourth industrial revolution. This question needs to be answered scientifically and reasonably. As we have seen and experienced in Indonesia, every new ministry particularly Ministry of National Education, he will create a new national curriculum as well.

The national education curriculum needs to be developed based on the modern era without ignoring moral values. Likewise, the government should adjust the national education curriculum to physical–cyber system (Dr, HA, 2018). Curriculum transformation regarding industrial revolution should be developed to some extent (Dr. MD, 2018). Moral values need to be endorsed within the National Education Curriculum (Dr. MJ, 2018). It does not matter if the curriculum should be changed, but it is by industrial development. Moral education has been implanted in the national curriculum, but the implementation of the curriculum may not be seriously done (Dr. DA,2018). It can be said that Industry 4.0 is not a harmful thing for people as long as they can hold firmly with their religious teachings (moral values).

We cannot hope that people have the same opinion in one thing or to agree with one opinion. We have the same black hair, follow the same religion, live in the same family, and so forth, but of course, do not have the same mind to think. In my opinion, the curriculum should not change, but it should be developed by the community's needs (Prof. Dr. HA, 2018).

On the other hand, I am in the opinion that, National Education Curriculum should be moral, religion and character oriented without ignoring skill, foreign language mastering, technology, and entrepreneurship oriented (Dr. TZ, 2018). There are two kinds of opinion found in this interview. One says the curriculum should be changed for some reasons; on the other hand, the curriculum should not be changed but developed to some extent.

IV. CONCLUSION

Living in this millennium era or the fourth industrial revolution era, human beings need to be provided with moral values or religious teachings. The Fourth Industrial Revolution will influence and change a man's attitude, man's way of thinking, and man's way of life to some degree. Man cannot live harmoniously without being guided by religion and religious teachings (moral values coming from religion). It can be proof that man who has no religious moral values, he/she will probably experience emotional shock and spiritual disorder. When facing the most difficult problems in their life, the solution is committing suicide.

Wealth, property or means, does not guarantee to be harmony and happy to live in this world. Nevertheless, we are advised to work painstakingly and work hard to survive and help others or the needy and the poor. In Islamic point of view, the rich are welcome and needed because the early days of Islam there were several generous wealthier who supported Islamic propagation and their involvement in spreading Islam and extending Islamic territory were not denied at all.

National education curriculum no needs to change drastically, but it should be reinforced by Islamic moral values. Probably the content of national education curriculum should be developed, and more emphasized on moral values (*akhlaq*) because our prophet Muhammad (peace be upon him) was sent down to this earth for restoring the bad attitude of Arabians in the early days of Islam.

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