The Community Empowerment Towards Competitive Indonesian Communities In The 21\textsuperscript{st} Century

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Abstract: Community empowerment is a development idea and appears as the main narrative in the development policy debate. In some literature and research results, community empowerment has been proven to encourage community capacity in various aspects. This article will present the idea of community empowerment in the era of the industrial revolution. The aim is to formulate strategic concepts in climbing the 21\textsuperscript{st} century world journey.

Index Terms: Development, education, empowerment, human resources, sustainable, technology, 21\textsuperscript{st} century

1 INTRODUCTION

One of the benchmarks for the competitive advantage of a nation indicates by the quality of its human resources. Indeed, a skillful manpower will sustain the development of a more progressive nation. According to Noeng Muhadjir, human quality can be assessed from physical and mental aspects, [1]. Physical can be interpreted as health and skill, while mental refers to knowledge and character. This then re-emphasizes that the sustainability of a nation is determined by its human element, [2]. Based on these views, the resilience of the nation is indicated by physically healthy people, having good skills, broad-minded, and moral competence. The aforementioned discussion is the ideal human concept. To realize it, of course there are various ways needed, one of them is through education. Meanwhile, education is still a prominent aspect. Education is a counterattact against negative influxes which might be slowing down the world development and technology advancement. Nowadays, the challenges of 21\textsuperscript{st} century is evident. At these days, therefore, the manpower development processes shall be more progressive, particularly to deal with the 4.0 industrial revolution effects in which the authorities need to employ more practical strategies. The 4.0 industrial revolution begins with a massive alterations towards the multifaceted spheres of our societal lives. The initial phase started with the 0.1 industry which was indicated by mechanization, manufacturing processes using manufacturing-based machines. Next, the 0.2 industry was characterized by mass production using electric-powered machines. Following this, the 0.3 industry appeared with the employment of information and electronics technology. Today, which is generally recognized as the 4.0 industrial revolution, begins with the highly used of online based digitalization and the internet of things. Indonesia is entering its 4th phase, where the society’s affairs are heavily relied on the digital economy, artificial intelligence, big data, and robotic. The demands of the industrial revolution phase are actually very heavy if contextualized with the current conditions of Indonesian society. Especially for people in villages and remote areas of the country. Having said that, the human development planning is supposed to be able to encourage human intelligence in utilizing technological devices. This is particularly true, since the technological advancement and social development in 21\textsuperscript{st} century can mislead societies and set them in a future state without choice or control over its destiny, the community becomes a passive recipient instead of an active agent [3], moreover technology and globalization have narrowed down the world [4]. The world complexity in this fourth phase requires a high level of seriousness. Technology literate in society shall be encouraged, at least those people are able to use it to support their economic affairs. The manual ways which are still employed at these days, sooner or later, would be methamorphosed into automation. This is because technology is a fundamental element to ensure all function in society can be thrived [5]. Lenski argumentation towards technology can be simply understood that technology supports myriad of social activities particularly on economic affairs. However, there is a primary thing must be put forth, to fulfill the present needs a continuous development shall not sacrifice the competences of future generations to meet their necessities [6]. That is, development today is not only for the present generation but for generations to come. To get there of course education is needed. Generally, education can be obtained through formal schools, non-formal institutions, and informal [7]. A non-formal education is believed to be a medium for serving a long-life learning, embracing all aspects of life, and accompanying human milestones beginning from womb to old age or until entering the grave [8]. The explanation above can be assumed as an ideal definition of the nature of education. One part of non-formal education is community empowerment. To answer the various problems of underdeveloped society in the current industrial revolution era, one of, the paths that must be taken is empowerment. Various problems experienced by community, like, poverty (both in economic and information) basically can be solved using an advanced information technology. Some empowerment programs aimed to encourage the economic forces of community, their existences scraped by competition over period of time. This happens because many community empowerment programs are still rigid and conventional. Community empowerment programs, whatever their models, they must be integrated with activity related to technology.
literacy. As a result, there will be a kind of link and match between the results of empowerment and technology. One of example of this is the empowerment of coffee farmers to increase the productivity of agricultural products and coffee sales. For productivity, farmers are taught to grow coffee in a standardized way, how to take care of it, how to pluck, and what is the processing method, etc. For sales, farmers are coached on online marketing - for example through social media or through online shopping such as www.bukalapak.com, www.tokopedia.com, www.olx.com, and many more. Additionally, it is also sold in traditional markets. Based on these views, empowerment action should always be linked with technology literate. Theoretically, empowerment is the delegation of authority to the community to decide on planning, implementation, evaluation to enjoy the results of the development, [9]. This means that pure community empowerment programs are managed by community in a participatory based method. The government’s position stimulates the public by providing adequate facilities, especially technological facilities. In the context of 4.0 industrial revolutions, community empowerment needs to integrate material or lessons about the importance of understanding the digital world.

2 DISCUSSION

2.1 21st Century Complexity

The twenty-first century is very complex. It takes precision and high level of competence to be involved into the new world order arena. Who is strong, he wins! That is the representation of competing in the twenty-first century era. Marked as one of the most complex things is the growth of the 4.0 industrial revolution or the fourth phase of revolution. Every single facet of our lives have been affected by digital technology and the internet of things. This will be a new challenge, at among the lack technological literacy within community, newcomers bring sophisticated systems which are not able to be managed and employed well by the conventional community. For example, in the industrial world there is still a very wide gap between the industrial world demands and situation on the ground expected by the 4.0 industrial revolution, Qin et al. in Prasetyo [10]. Furthermore, human competences must be truly upgraded in order to be able to meet the demands of the 21st century industry evolution, not to mention, the disrupted effect which develops. Manpower potentially will be replaced by digital machines; which will lead to large-scale layoffs in businesses. The question is, where will they find a new job after being laid off? The problem above is a major challenge faced by a country when implementing the 4.0 industry concept as its emergence would disrupt demographic and social spheres, political instability, limited resources, natural disaster risk, and decarbonization demands [11]. The situation must be though for a developing country like Indonesia. At least, these issues will give mind to the central government especially in the related region. Some of the challenges mentioned above shall be dealt with an open minded stage. The policy makers are supposed to optimize the role of education as a means of the 21st century human resource development methods to synergize with the acceleration of science and technology. Basically the authorities must be able to develop four dimensions of education: knowledge, characters, and metacognition. There must be a balance load between traditional subjects/knowledge and the modern disciplines; skills related to the use of knowledge in everyday life; character which is associated with the way we behave in our lives; and metacognition which is closely related to self-reflection process, and learning how to learn, [12], or metacognition can also be called thinking about one's thought [4] and involved the construction of three other dimensions. The dimensions of education are described by Trilling et al [12] in a scheme below (Figure 1):
the existing educational institutions have a potential to develop new learning methods such as centralization, social learning, and learning in everyday life. The above formula is indeed a tough challenge to be implemented. Therefore, the challenge demands breakthrough and best ideas from the nation's generations to be able to produce excellent generations and compete in global contestation. The 21st century is the knowledge era. Everything is knowledge-based, such as knowledge-based education, knowledge-based economic development, knowledge-based community development and empowerment, and knowledge-based industry development [15]. Therefore, education should be excellent and standardized. As explained [16] that education must direct the potential and talent of the nation's generation towards the point of perfection. Although Indonesia is forcing the transformation to face the challenges and complexities of the 21st century, the people must remain vigilant in undergoing the renewal process, especially in the field of education. Do not arrive, the goal of the renewed aspirations is limited to keeping our educational products in order to remain relevant to the world of work or just as a prerequisite for further education [17]. That is certainly embarrassing. Education must encourage critical thinking skills and foster a social-religious spirit for their students. Hence, gradually this nation will pass through various complexities over the period of times and its challenges in the future.

2.2 21st Century: The Age of Community Empowerment

At present, in the midst of world change and the shift in ways of thinking to the ways of acting humans have given birth to a new kind of tradition in people's lives. Therefore, to get there and even help build the new civilization, humans must equip themselves with high-level abilities. This can be achieved by community empowerment. Why? The basic assumption is that the 21st century requires critical knowledge, the best skills, superior character, and metacognitive abilities. Everything can be built within the framework of empowerment. Critical knowledge is certainly not instructionally given knowledge, but through appreciation, experience, and direct participation born from the initiation of the community itself. Likewise, with skills, people must experience it themselves and practice their own thoughts and experiences. Educational institutions or the government only provide stimulus and supporting facilities. While the superior character can be built by the community and maximize them through associations and social interaction in the community. However, the Indonesian people must go through this century in earnest. Poverty and social inequality must be stopped by cutting off the chain of structural oppression. Therefore, a regional development program must lead to a process of true empowerment. Theoretically, empowerment is the process of developing the capacity of marginalized or oppressed individuals to be able to gain greater control over their own lives and environment [18]. In addition, empowerment runs the community gets important resources and facilities as bargaining power of individuals in their environment, even to the wider community arena [19]. As an effort to develop individual capacity, community empowerment must encourage the creation of critical community awareness, strengthen its capacity as individuals, communities, and organizations [20]. Of course this is aimed at combating the oppressive practices experienced by the community in some development services or programs, [21]. Empowerment is also a bridge that connects individuals with a larger socio-political environment [22]. In accordance with the challenges and complexities of the 21st century described previously, indeed empowerment cannot be avoided from the dynamics of community development. Community empowerment is an agenda, program, and strategy to strengthen and equip the community with the ability of knowledge, skills, character, and metacognition in facing the era of industrial technology in the 21st century. As an effort, community empowerment in the context of the 21st century must not be separated from technological literacy. Why is that? Today's technology has become a lucrative new world. If the public is not technology literate, it is likely that it will be displaced from the contestation of the digital world and the virtual world. The assumption above is not a pragmatism towards modern civilization, but a step to counteract the negative effects while at the same time harmonizing steps to be able to compete, equal, and mingle with the world community. Why is that? Empowerment in achieving targets; possibility, strengthening, protection, advocacy, and maintenance [23]. Empowerment must "enable" the potential of the developing community and be free from the cultural and structural barriers that impede it. Furthermore, 'strengthening' the knowledge and capabilities of the community. Empowerment must also 'protect' the weak community from the oppression of powerful groups, and avoid the public from unfair and discriminatory competition. Empowerment is directed at 'supporting' the community so that it does not fall into poverty pits and is increasingly marginalized. Finally, empowerment is focused on 'maintaining' conducive conditions in order to create balance in the community and ensure harmony for everyone to get the opportunity to do business. The reality of empowerment above implies the opportunity for the presence of technology to strengthen the achievement of the goal of community empowerment. Therefore, the integration of technology in each of the important empowerment agendas in the 21st century. The explanation above is reinforced by the argument that in community empowerment there must be a transfer of knowledge and technology that fits the needs of the community. [24]. Adjusting empowerment with community needs is done because the 'sense of community' given by the community must be different from other communities [25]. The suitability is expected so that the people in the village and in the city obtain assets to their own community [26]. Therefore, knowledge and technology are important in the dynamics of the empowerment process. Presenting technology in every community empowerment agenda can be called an alternative model that is suitable for facing the future of the world that is highly techno-logical.

2.3 Technology-Based Empowerment: Alternative Models of Indonesian Community Development

Previously discussed about technology-based community empowerment. Whatever the type of program and community empowerment activities, it should be technology based on the needs of the community. This is important because it involves the strength of information and communication technology that is able to disburse between rich and poor [27]. As a basis, technology can be seen from two sides, namely the internet and digital. Internet can be used for empowerment to encourage horizontal community participation and open new digital bridges to the smallest and marginalized areas, while digital technology can be used as a tool to achieve
information, social, and economic capital, [28]. Furthermore, [28] explained that technology investment in the process of community empowerment can create information divided openly, open the possibility of dialogue from a variety of perspectives, can be a forum for discussion, and open opportunities for people to influence policy making, (Makinen, 2006:386)[28]. The various perspectives above can confirm the idea of technology-based community empowerment as an alternative model of community empowerment in Indonesia, especially rural areas. In addition, empowering parties such as the government, private sector, and local institutions can create and use social technology as a tool in the empowerment process. Social technology is a series of procedures that can be replicated and designed in such a way as to provide a wider range of effects, [29]. In the future, if the alternative model is well designed, it is highly probable that the Indonesian people, especially those in disadvantaged villages, can jump to equalize with other more developed villages and even compete with the wider community. Technology-based empowerment is indeed not a new concept for the world of development. However, in the rural context in Indonesia, the intended alternative model is needed. Community development is something that continues to roll from time to time and community empowerment is part of the development. Development narratives are narratives that will not stop because development can be a source of information, analysis, and a center of dialogue for the community in formulating their goals and ideals, [30]. Basically, community empowerment is not only going away from underdevelopment, but must help encourage sustainable human development without leaving anyone behind, [31]. Thus, integrating community empowerment activities with technology is an inevitable necessity. After all, times have changed. The future human dynamics are in the hands of science and technology. Therefore, the Indonesian people must begin to push for alternative models of technology-based community empowerment into the agenda of a future development agenda. In a research report [32] the World Development Report (WDR) titled “Digital Dividend’s” mentions that that today the development of digital technology is very massive, this is evidenced by almost 70 percent of households in developing countries using mobile phones but extreme inequality is still occurring in its use. Therefore, the World Bank recommends that developing countries reduce this imbalance by expanding access to internet technology to remote villages. When the above is not immediately sought for a strategic solution, the hopes of prosperity and prosperity for most of the poor in Indonesia will disappear. Therefore, an alternative model of technology-based community empowerment needs proliferation efforts in villages and regions that are still lagging behind. In addition, the government must accelerate the construction of internet network facilities in remote areas. The percentage of internet users according to the survey of the Indonesian Internet Service Providers Association (APJII) in 2017 is still concentrated in Java, as much as 58.08 percent, Sumatra Island 19.09 percent, Kalimantan Island 7.97 percent, Sulawesi Island, 6.73 percent, Bali and Nusa Tenggara islands 5.63 percent, Maluku and Papua islands 2.49 percent. Result of the survey indicate the existence of inequality internet facility development and dissemination of digital society development. This also affects the economic growth of the community. Therefore, to encourage community development, especially the local community, information technology and the Internet should be exploited through community empowerment, [28]. Thus, the knowledge and skills of community members can increase because in the process, they encounter a variety of new information and interaction styles. In addition, the use of internet technology (information) in empowerment programs can improve the socio-economic conditions of society [33] and the socio-economic revitalization must be based on what is already in society [34]. The existence of technology is a support in fulfilling several community needs [34]. In the Indonesian context, technology-based community empowerment needs to be formulated strategically through national development policies. However, the challenges of the 21st century are in sight, even though we have already passed several phases in them. Based on the previous description, the 21st century really does not need prolonged chatter. The 21st century needs fundamental thoughts and movements that are able to encourage a significant change. Below, the author will formulate the conceptual framework of development and community empowerment in the era of the 21st century. This step is taken to reposition the direction of empowerment of today’s society in accordance with the conditions and development of the times. Next, the conceptual illustration in Figure 2:

The picture 2 above is the result of the conceptual abstraction of the author looking for the socio-economic reality of Indonesian society and ways to deal with the challenges of changing times. In the future, only those who are knowledgeable, skilled, and with superior character can overcome this challenge. Therefore, this nation besides solidifying today’s generation, it must also prepare future generations.

3 CONCLUSION
The above study is a conceptual description as well as thoughts born of anxiety over the conditions and challenges being faced by community development in Indonesia. In dealing with the complexity of the 21st century and the
industrial revolution, community empowerment must appear as a mainstream in discourse and also in the practice of community development. 21st century community empowerment must be based on digital technology, the internet, and social technology. This is important to encourage community competency and innovation.

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